

**In the Matter of:** The Resource Management Act 1991

**And**

**In the Matter of:** Application 240005 to Use land to establish a 100-megawatt renewable energy project. The establishment of an agrivoltaics development (solar farm) including solar panels, inverters, transformers, battery energy storage system, a substation, a site office and connection to the nearby Masterton Substation.

Applicant: Masterton Solar and Energy Storage Ltd.

## **Section 42A Officer's Report**

**Date of Report:** 28<sup>th</sup> November 2024

### **INTRODUCTION**

1. My name is Claire Kelly. I am a Senior Principal and Planner at Boffa Miskell Ltd, a national firm of consulting planners, ecologists, urban designers and landscape architects.
2. I hold the qualification of MSc in Environmental Management from the University of Nottingham. I am a full member of the New Zealand Planning Institute.
3. I have been a Planner for 18 years. My experience includes providing consultancy services to a wide range of clients around New Zealand, including local authorities, central government, land developers, primary producers, renewable energy providers and the aggregate sector. I have prepared and processed resource consent applications and undertaken statutory planning and policy preparation.
4. I have been engaged by Carterton District Council to prepare this report under the provisions of Section 42A of the Resource Management Act 1991 (RMA). This section allows a Council officer to provide a report to the decision-maker on a resource consent application made to the Council. Section 41 (4) of the RMA allows the decision-maker to request and receive from any person who makes a report under Section 42A of the RMA "any information or advice that is relevant and reasonably necessary to determine the application".
5. This report will provide the decision-maker with information and advice related to:

- The background to the application;
  - Details of the notification of the application and submissions received;
  - A description of the proposal;
  - An outline of the relevant legal and planning provisions;
  - Comments on the assessment of environmental effects provided;
  - Details of national, regional and district plan policy relevant to the application;
  - Recommendations in relation to the matters specified in Part 2 of the RMA; and
  - Recommendations on the decision to be made by the decision-maker including on whether the application can be granted or should be declined; and
  - If the application is to be granted what measures are required to avoid, remedy or mitigate any adverse effects; and
  - What monitoring should be undertaken.
6. This report also draws on the technical peer review of the Landscape Assessment undertaken by landscape planner, Ms Gardiner of Boffa Miskell.
7. It should be emphasised that any conclusions reached, or recommendations made in this report are not binding on the decision-maker. It should not be assumed that the decision-maker will reach the same conclusion or decision having considered this report, the application and the submissions.

## BACKGROUND

8. The application was submitted to Carterton District Council on the 1<sup>st</sup> March 2024 by Masterton Solar and Energy Storage Ltd. The application included the following written approvals:

Address	Owner/Occupier	Owner/Occupier
61 East Taratahi Road	Owner. Not the occupier.	L J Christian, D J Laing, W J Potts.
558 Hughes Line	Owner/Occupier.	C A Playford, M Playford
24 Norfolk Road	Owner/Occupier.	Juken New Zealand Ltd
11 Norfolk Road	Owner/Occupier.	Burling Transport Ltd
45 Waingawa Road	Owner/Occupier.	Storage 0800787822 Ltd
49 Waingawa Road	Occupier.	Mobile Mechanical Solutions
11 Norman Ave/1 Pakihi Road	Owner/Occupier.	Hedge Investments Ltd
7 Pakihi Road	Owner/Occupier.	Chunkys Contracting Ltd
11 Pakihi Road	Owner/Occupier.	Wren & Dove Ltd
Solway, Masterton	Masterton DC	Hood Aerodrome

9. The application was initially assessed, and the s95 notification report prepared, by Mr N. Eagles.
10. Further Information was requested on the 10<sup>th</sup> March 2024 and a peer review of the Landscape Assessment was commissioned on the same date. Ms Alex Gardiner of Boffa Miskell was engaged to undertake the peer review, and her findings have informed this recommendation report.
11. Further information was received from the applicant on 17<sup>th</sup> April 2024 and duly considered by the Council. Mr N. Eagles then prepared the s95 notification report.
12. The application was publicly notified on the 3<sup>rd</sup> July 2024 in the Wairarapa Midweek. In addition, the following parties were directly informed of the application: Adjacent landowners (3920, 3831, 4022, 3979 State Highway 2, M F Hammond (no physical, address/State Highway 2), 510, 532, 542, 573, 477, 580, 581 Hughes Line, 99 Cornwall Road, 49 Waingawa Road, and 3, 5, 9 and 11 Pakihi Road), Iwi, Masterton District Council and Greater Wellington Regional Council.
13. The submission period closed on 30<sup>th</sup> July 2024. Three submissions were received: one in support (Mr Telford at 103 Kaka Amu Road, Masterton) and two in opposition (Ms. Emerson at 3920 State Highway 2 and Mr and Mrs Hendriske at 532 Hughes Line). Ms. Emerson expressed concern about effects on visual amenity, glare and impacts on her family's lifestyle. Mr and Mrs Hendriske did not express any particular concerns. As Mr Telford was the only submitter who wished to be heard, he was asked, and agreed, to withdraw his request to be heard on 12<sup>th</sup> August 2024. Consequently, a hearing was not held.
14. However, commencing on 21<sup>st</sup> October 2024, the Council began to receive a number of late submissions, all in opposition to the solar farm. By 1<sup>st</sup> November, the number of late submissions had increased to 22.
15. The Commissioner issued Minutes #1 to #5 (between 23<sup>rd</sup> October and 2<sup>nd</sup> November), which addressed:
  - the requests for acceptance of late submissions, and
  - whether or not the party wishes to be heard and in what circumstances; and
  - requests from submitters who filed submissions within the notification period (3 July 2024 to 30 July 2024) to change their position not to be heard to a request now to be heard and in what circumstances.
16. The Commissioner in Minute #1 set out the process and timeframes for addressing these requests including dates by which information from the late submitters and/or their counsel should be submitted to Carterton District Council, and a response to this information from the applicant to be received by 4<sup>th</sup> November 2024. Parties seeking that late submissions were accepted, had until 11<sup>th</sup> November to respond to the applicant's position. It is noted that a supplementary memo was received from the Applicant's Counsel on 14<sup>th</sup> November, which the Commissioner asked

Carterton District Council officers not to provide to him, as he deemed it would be unfair to other parties (subject of Minute #7).

17. Having reviewed all the information from the applicant and submitters on these procedural matters, the Commissioner sought an independent legal opinion, provided by Mr T Robinson (Barrister), on the following matters (subject of Minute #6), summarised below:
  - a. Do I have the power to make decisions under section 37(2) of the RMA?
  - b. Is it open to me to grant L and H Hendrikse's request to change their wish not to be heard, to now be heard.
  - c. What factors should guide my decision whether or not to grant the application by a number of people seeking to lodge late submissions?
  
18. Mr Robinson's advice, received on 19<sup>th</sup> November, is summarised below:
  - a. You have not been delegated with the power to make decisions under Section 37(2) of the RMA, and therefore have no power to do so on behalf of the Council. Further, in my view, even if you had had that power, the balance of evidence I have reviewed does not support a direction under that provision.
  - b. The RMA provides no clear entitlement for L and H Hendrikse to change their request not to be heard, as set out in their submission.
  - c. Under Section 37A(2) of the RMA, a time period may be extended for a time "not exceeding twice the maximum time period specified in this Act" without the Applicant's approval. The Applicant has clearly not approved, and a greater period than twice the maximum period specified has passed before receipt of the proposed late submissions. Accordingly, in my view, irrespective of their merits in terms of the tests in Section 37A(1) of the RMA, you have no power to grant the applications made to you by multiple parties seeking to have their late submissions accepted.
  
19. The Commissioner issued Minute #8 on Friday 22<sup>nd</sup> November, which sets out his reasons for not accepting the late submissions, nor the request to be heard from L and H Hendrikse, and that the matter will not proceed to a hearing.

### **Greater Wellington Regional Council**

20. An application for resource consent was also lodged with the Greater Wellington Regional Council (GWRC Consent No. WAR240183) on 1<sup>st</sup> March 2024. The consents sought were for:
  - a. Land use consent: Soil disturbance and placement of security fencing within a natural wetland
  - b. Discharge permit: Earthwork to land/water associated with the construction of the solar farm
  
21. The application to Greater Wellington Regional Council was processed on a non-notified basis. Consents were granted on 26<sup>th</sup> July 2024 for a

duration of five years – as it relates to the construction phase for the solar farm. The resource consents are subject to a number of conditions.

## APPLICATION

### The Site

22. The site subject to this application is located at 3954A State Highway 2 (the 'Site'), to the southwest of Masterton in an area known as Waingawa. It is roughly square shaped, with a total area of approximately 147 hectares. The Site has frontages onto State Highway 2, Cornwall Road and Hughes Line.
23. The Site is rural in character and is currently used for sheep and cattle grazing. However, part of the Site bears reminders of its previous use as part of the Waingawa Freezing Works including an extensive artificial dike irrigation system and the remnants of fellmongery/settling ponds. There is a permanently flowing watercourse (water race) that runs north to south through the Site.
24. The Site currently has two areas of buildings: one that supports wool sheds and yards and the other that contains a dwelling that is currently unoccupied. All these buildings are in proximity to State Highway 2.
25. The Site is held within eight records of titles which are summarised as follows:

	<b>RT Ref</b>	<b>Legal Description</b>	<b>Area (ha)</b>	<b>Date Created</b>
1	WNF1/1189	Pt Lot 2 DP 2099	27.9819	23/11/1966
2	WNF1/1188	Pt Lot 3 DP 2099	28.313	23/11/1966
3	WNF17b/749	Pt Lot 1 DP 46533	50.0816	13/03/1977
4	WNF765/45	Lot 1 DP 19148	0.0376	05/11/1957
5	WNFD1/413	Pt Lot 4 DP 2099	13.8024	25/01/1965
6	WN638/13	Lot 1 DP 17189	3.0461	14/12/1954
7	WNF248/15	Lot 1 DP 3447	9.9947	26/05/1915
8	WN213/272	Pt Lot 4 DP 2099	13.7593	27/11/1912

26. There are several interests on these titles however none impact the assessment of this application. There is a Gazette Notice that declares a portion of State Highway 2 to be a limited access road and no access is proposed during construction of the solar farm. There is also a stormwater drainage easement, and any potential effects on this will be addressed with Carterton District Council.
27. The surrounding area to the north-east, south, west and south-west is also currently rural in character. Although the site to the northeast (51, 99 and

107 Cornwall Road) is subject to a recent decision (RC240014) to grant consent to Masterton Solar Farm Ltd to establish a 25 hectare solar farm comprising 25,000 to 35,000 panels, 6 power conversion units but no onsite staff facilities. The site is identified by a red line on Figure 1 below.

28. The site to the southwest (510 Hughes Line, 271 Perrys Road & 303 East Taratahi Road) is subject to another solar farm application by Harmony Energy NZ #2 Limited for a 100MW facility on a 156 hectare. It will comprise 240,000 solar panels, 36 MV medium voltage power stations comprising a combination of inverters, transformers and switch gear, 33 battery banks, each containing three batteries, 4 cylindrical 466m<sup>3</sup> water tanks, a substation building, 1 container structure to house spare parts, 1 operations and maintenance building, and parking and manoeuvring areas. This application was granted consent under the COVID-19 Recovery (Fast-track Consenting) Act 2020, but the decision has been appealed to the High Court by Forest and Bird. The site is identified by a blue line on Figure 1 below.
29. Land on the opposite side of State Highway 2 to the north-west is occupied by several large and small-scale industrial activities. To the south-east of the Site is the Masterton Substation which forms part of the National Grid network. To the east of the substation is a contractor yard and a quarry. To the southwest and southeast of the substation, there is a small cluster of dwellings that have frontage onto Hughes Line. The Site is located approximately 1.3km southwest of Masterton and west of the Hood Aerodrome. (refer to Figure 1 below).

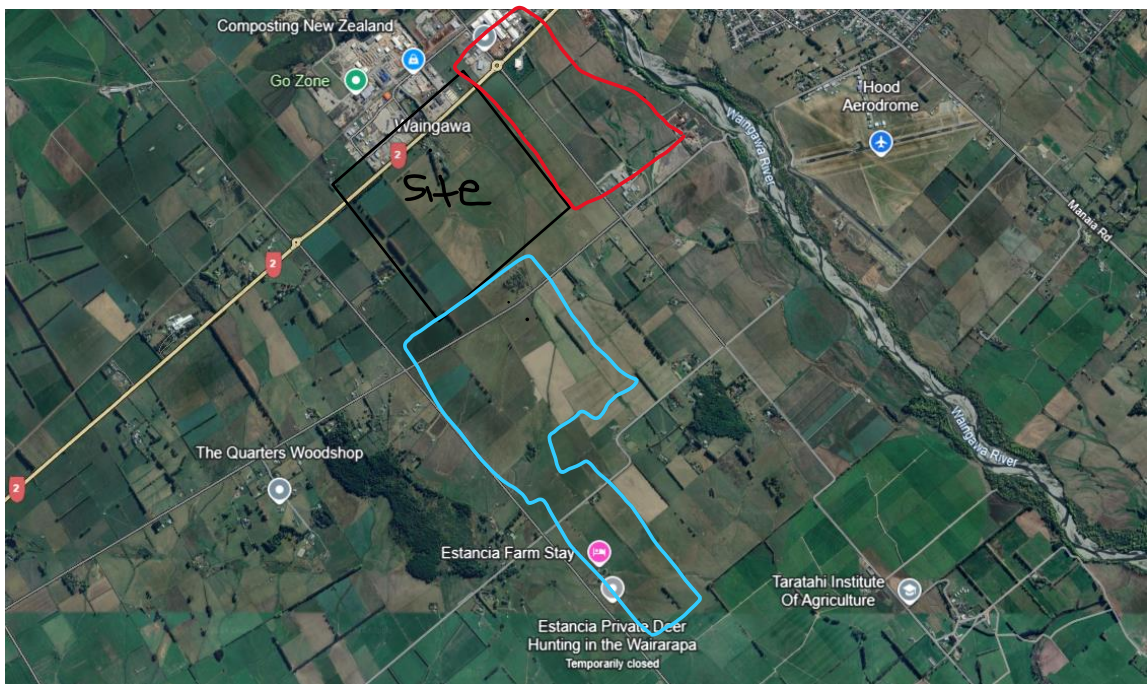


Figure 1: Google Earth image of the Site and surrounding consented and proposed solar farms.

30. The Site is zoned Rural (Special) and Rural (Primary Production) under the Operative Wairarapa Combined District Plan 2011 and is subject to the

following overlays: Contaminated site (SN/07/006/02), Airport Obstacle Limitation Surface and Air noise contour. I understand that the Rural (Special) Zone is applied to this land due to the proximity to industrial developments within and adjacent to this area and nearby Hood Aerodrome, and to protect this development and facility from incompatible activities to avoid conflict and reverse sensitivity issues.

31. The Site is zoned General Rural under the Proposed Wairarapa Combined District Plan and is subject to the following overlays: Airport obstacle limitation surface, Air noise contour, highly productive land, and Noise boundary for State Highway 2. The Site is not identified in the Operative or Proposed District Plans as being subject to natural hazards, archaeological, cultural or heritage values.

### **Land Use Classification**

32. The current use of the Site is for dry stock (cattle and sheep) pastoral grazing. The stock is managed between this site and a larger station on the east coast of Wairarapa. Regarding the Land Use Capability classification of the Site, approximately 67ha (45.6%) is classified as Class 3 land and the remaining 80ha (54.4%) is classified as Class 4 land. It is noted that Land Use Capability 1-3 is considered to be highly productive land under the National Policy Statement for Highly Productive Land (NPS-HPL).

### **Ecological values**

33. The Site is dominated by pastoral grass species and exotic trees with five kānuka trees (*Kunzea robusta*) scattered across the Site. There are also two natural wetlands present on the Site with vegetation comprising species typically found in highly modified pasture environments such as grazed rushes (*Juncus* spp.), hydrophytic grasses, and aquatic plants associated with ponding. The Site also has trees that could potentially provide suitable communal roost sites for long-tailed bats.

### **Contaminated land**

34. The Site previously contained an effluent pond and irrigation channels for liquid disposal from a nearby tannery activity which have subsequently leached into the Site. These historic activities are included on the Ministry for the Environment's Hazardous Activities and Industries List (HAIL). A preliminary site investigation (PSI) was undertaken, which included a review of the site's history and indicated that the whole site has been subjected to an activity listed on the HAIL, in particular HAIL activities:
  - A.10: Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds
  - A.16: Skin or wool processing including a tannery or fellmongery, or any other commercial facility for hide curing, drying, scouring or finishing or storing wool or leather products
  - A.17: Storage tanks or drums for fuel, chemicals or liquid waste.

- E.1: Asbestos products manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition.
  - G.5: Waste recycling or waste or wastewater treatment.
35. This is documented and mapped within the PSI. In brief, the entire Site is contaminated as sediment from the effluent pond was spread across surrounding farmland. In addition, two specific areas have been identified as contaminated due to various activities having been undertaken on the Site, including skin and wool processing, tannery or fellmongery, and activities associated with waste recycling, as identified on Figure 2 below.



Figure 2 – Contamination identified on the Site.

36. The Site is therefore deemed to be contaminated and subject to the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES-CS).

## PROPOSAL

37. This proposal is for the establishment of an agrivoltaics development also known as a solar farm with farming activities at 3954A State Highway 2 with the development occupying 138ha of the Site for a period of 40 years. This will include erecting solar panels (photovoltaic modules), inverters, transformers, battery energy storage (BESS), a substation and a site office. The proposal will also include establishing security fencing and undertaking landscaping in certain places, earthworks and trimming of trees and in some cases tree removal with site access off Cornwall Road.
38. The proposal seeks to establish approximately 166,000 solar panels (photovoltaic (PV) modules). Each panel has a dimension of approximately 1.3m (width) by 2.2m (height) and 0.35m thick and will be mounted on single axis tracking tables (base) oriented north-south. The tracking tables will each contain approximately 60 modules. Each table



will be approximately 78m long and approximately 2.95m high at maximum tilt (60 degree tilt) and 2.2m wide at minimum tilt. Each row of tables will have a 2.8m wide perimeter clearance to allow for access and maintenance. The PV tracking tables will operate all daylight hours every day of the year.

39. There are proposed to be approximately twelve solar inverters stations, coupled with small transformers located within, and at regular intervals across the solar farm which will be approximately 4.3m in length, 0.5 metres in width and 2.6m in height. The inverters convert direct current electricity generated by the panels into alternating current, so that it can enter the substation.
40. 240 Battery Energy Storage System (BESS) units are proposed to be clustered in the southern part of the Site with the switchgear, transformers and site office, and in proximity to the substation area fronting Cornwall Road. Each BESS will be located in a repurposed shipping container, approximately 6.1m in length by 2.4m in width and 2.9m in height. A total of 240 shipping containers are proposed. The BESS store the electricity before it is released into the national grid.
41. A substation area is proposed immediately south of the BESS area, will be up to 1ha in size and includes a switching station building which links with the Masterton Substation. A site office of approximately 35m<sup>2</sup> in size is also to be established with 20 car park spaces. Twelve 30,000 litre water tanks are also proposed. Please refer to Figure 3 below.

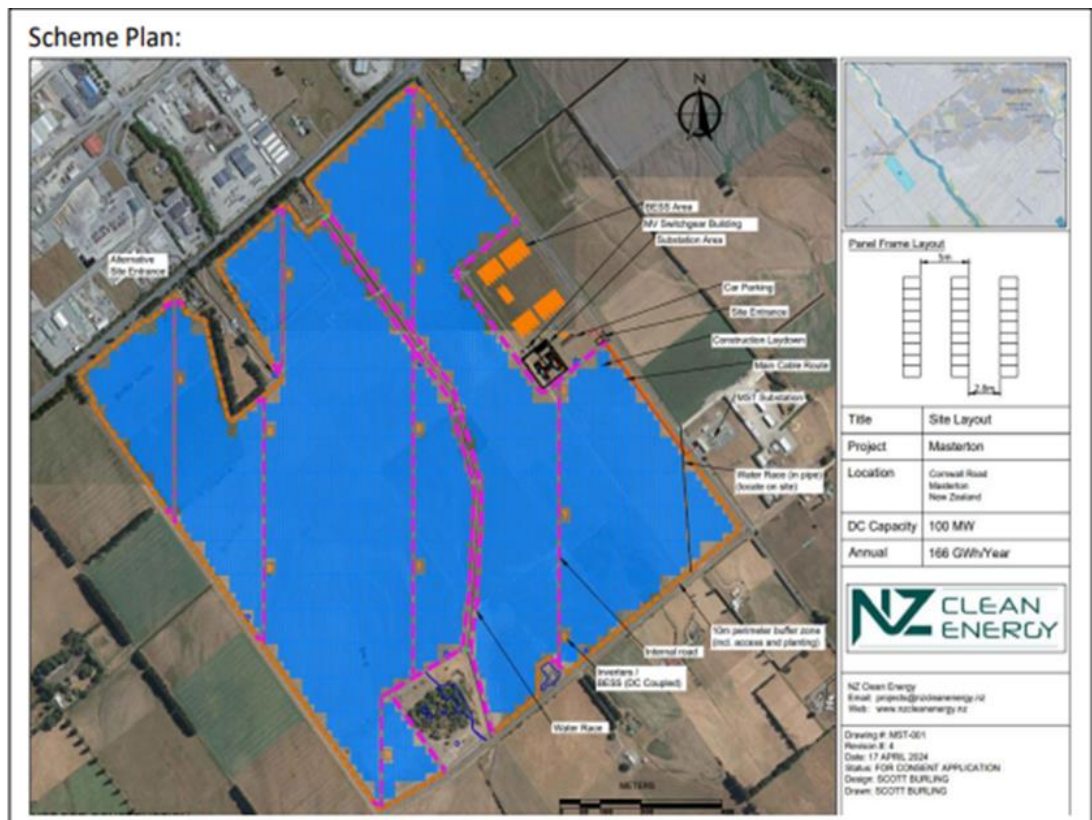


Figure 3: Scheme Plan showing BESS, layout of the solar panels, areas of vegetation to be retained and site access points.

## Construction works

42. The construction of the proposed development is expected to take 12 to 18 months and will include the following:

- Removal of existing internal fencing and vegetation in the development area.
- Formation of site access and implementation of erosion and sediment control measures for earthworks which includes surface soil scraping over an area of 10.8ha and approximately 32,550m<sup>3</sup>.
- Formation of internal access tracks (designed to comply with Fire and Emergency New Zealand manoeuvring requirements) and hard stand area for BESS, Substation and switching area.
- Installation of PV tracking tables.
- Installation of BESS, substation, switching area units, and associated internal connections and cabling. The cabling is to be trenched.
- Erection of security fence approximately 2.4m high.
- Establish 20 informal car park spaces within the construction compound and laydown area.
- Up to 60 vehicle movements per day (30 in and 30 out) during peak construction. This will likely comprise 10 light vehicles and 20 heavy vehicles entering and leaving the Site. Construction traffic will utilise access ways onto and off Cornwall Road and Hughes Line. Construction traffic will not use either of the two access ways onto State Highway 2.
- Landscape planting that can achieve 2 to 3 m in height for landscape screening around the boundary of the Site as indicated in the Visual Landscape Assessment.
- Works to avoid indigenous lizard habitats including the stone field in the northern portion of the development area and the large boulder pile in the southwestern portion. It is also proposed to utilise existing farm tracks in the northern portion of the development area to avoid potentially suitable lizard habitat.
- Fencing and excluding from the development, Wetlands 2 and 3 in the southern part of the Site.
- Construction will take place between 7.30am and 6pm Monday to Saturday.

- Connection to the Masterton Substation via a new underground cable. This connection requires approval from Transpower, and any consents required under the NES-ETA will be applied for once detailed design has been undertaken. These works do not appear to require consent under the Wairarapa Combined District Plan or the Wairarapa Combined Proposed District Plan.
43. It is also noted that there may be changes required to the existing Masterton Substation because of the proposed connection from this agrivoltaic development. Any changes to the existing substation designation and any additional resource consents that may be required will be managed directly by Transpower and do not form part of this resource consent application.

### **Operational activities**

44. The operational activities of the proposed development will include the following:
- Once construction is complete, 6 car parks will be established adjacent to the site office. These will be formed to an all-weather standard and marked in accordance with the relevant Council requirements. Vehicle movements are expected to be approximately 3 in and 3 out per day, comprising of light vehicles and utility trucks. Two emergency accesses will be established: one in the south-western corner of the Site and off Hughes Line, as requested by Fire and Emergency New Zealand (FENZ). The existing access off State Highway 2 can also be utilised.
  - Cleaning the panels: Water to clean the panels will either be sourced from the existing on-site bore in accordance with the current groundwater take permit<sup>1</sup>, or from an external water supply and trucked to the Site.
  - Prior to the end of the 40-year lease, it is proposed that the Site will be decommissioned which includes the removal of all solar structures, buildings and disconnecting connections to the Masterton Substation to enable the Site to return to agricultural use.

### **ACTIVITY STATUS**

#### **Wairarapa Combined Operative District Plan (2011)**

45. The proposal requires resource consent under the following rules:
- Rule 4.5.5(c), for the construction of buildings that are not for primary production or residential purposes that will be greater than

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<sup>1</sup> I understand that CDC holds a resource consent to take water from the water races allows them to approve water takes for non-stock or domestic uses. However, there may be a cap on the quantum that can be used for these purposes.

25m<sup>2</sup> of gross floor area, which requires resource consent as a Restricted Discretionary Activity.

- Rule 21.1.24(iii) for the establishment of buildings for energy generation facilities that will result in greater than 10m<sup>2</sup> of gross floor area, which requires resource consent as a Discretionary Activity.
  - Rule 21.4.10 to undertake an activity on Contaminated Land as listed in Appendix 3.1 of the ODP, which requires resource consent as a Restricted Discretionary Activity.
  - Rule 21.6(a) to undertake an activity (the solar farm) that is not otherwise specified as a controlled or restricted activity, which requires resource consent as a Discretionary Activity.
46. Overall, the proposal requires resource consent as a **Discretionary Activity**.

#### **Wairarapa Combined Proposed District Plan (notified 11<sup>th</sup> October 2023)**

47. For completeness, the relevant rules that would be infringed under the Wairarapa Combined Proposed District Plan have been set out below. However, these rules do not have immediate legal effect under s86B of the RMA 1991<sup>2</sup>, and therefore do not influence the activity status of this application.
- Rule GRUZ-R19(1) for an activity within the GRUZ which is not otherwise provided for requires resource consent as a Discretionary Activity.
  - Rule ENG-R6(1) to establish a large-scale renewable energy generation activity, which requires resource consent as a Discretionary Activity.
  - Rule TR-R1(1) for a development that will provide less than the minimum required number of accessible parking bays (1 is required, none are provided), which requires resource consent as a Restricted Discretionary Activity.
48. Overall, the resource consent is required for the proposal as a **Discretionary Activity** under the Wairarapa Combined Proposed District Plan.

#### **National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health (NES-CS)**

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<sup>2</sup> A rule in a proposed plan has legal effect only once a decision on submissions relating to the rule is made and publicly notified under clause 10(4), 102(1), or 106(1) of Schedule 1, as applicable unless the Environment Court, in accordance with section 86D, orders the rule to have legal effect from a different date (being the date specified in the court order); or it protects water, air, or soil (for soil conservation); or areas of significant indigenous vegetation; or areas of significant habitats of indigenous fauna; or historic heritage; or provides for or relates to aquaculture activities.

49. The Site is identified by both the District and Regional Council as having been subject to historic activities that may have contaminated the land. Under Clause 5(7)(b) of the NES-CS, the Site is "land covered" by the NES-CS. Further, the proposal will include the disturbance of soil, which is an "activity" under Clause 5(4)(a) of the NES-CS. Therefore, the proposal must be assessed against the NES-CS to determine if resource consent is required under the NES-CS.
50. A Detailed Site Investigation (DSI) is yet to be prepared, therefore the proposal requires resource consent as a Discretionary Activity under Clause 11(1) of the NES-CS.

### **National Environmental Standards for Electricity Transmission Activities (NES-ETA)**

51. The proposal includes the connection of the agrivoltaic development to the nearest connection point to the National Grid: the Masterton Substation. The cable connection will be made underground within the road corridor of Cornwall Road.
52. The National Grid connection is currently subject to agreement from Transpower, which is being addressed concurrent to this resource consent application. Any statutory applications required under NES-ETA will be addressed via the grid connection process. The location of this connection will be confirmed as part of the detailed design process between the Applicant, Council, and Transpower.
53. It is also noted that there may be changes required to the existing Masterton Substation as a result of the new connection to this agrivoltaic development. Any changes to the existing substation designation and any additional resource consents that may be required will be managed directly by Transpower and do not form part of this resource consent application.

### **National Environmental Standards for Freshwater (NES-FM)**

54. I note the application assesses the National Environmental Standards for Freshwater (NES-FM). The NES-FM deals with functions of regional councils and is not a relevant consideration to the land use resource consent application.

### **S104 ASSESSMENT**

55. The relevant statutory documents and other matters under Section 104(1)(b) of the RMA are considered below. These include:
  - (a) National Environmental Standards – s104(1)(b)(i)
    - i. Resource Management Act (National Environment Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011
    - ii. National Environmental Standards for Electricity Transmission Activities 2009.

- (b) National Policy Statements – s104(1)(b)(iii)
  - i. National Policy Statement for Renewable Electricity Generation 2011 (NPS-REG)
  - ii. National Policy Statement for Highly Productive Land 2022
  - iii. National Policy Statement on Electricity Transmission 2008
  - iv. National Policy Statement for Indigenous Biodiversity 2023.
  
- (c) Regional Policy Statement or Proposed Regional Policy Statement – s104(1)(b)(v)
  - i. Greater Wellington Regional Policy Statement including Proposed Plan Change 1.
  
- (d) A Plan or Proposed Plan – s104(1)(b)(v)
  - i. Operative Wairarapa Combined District Plan 2011
  - ii. Proposed Wairarapa Combined District Plan 2023

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

- 56. A Preliminary Site Investigation (PSI) has been undertaken and submitted as part of the application which indicated that the Site has historically supported HAIL activities including the disposal of effluent from the Waingawa Freezing Works.
  
- 57. The PSI noted that pursuant to regulation 8(4)(b) of the NESCS, it is highly likely that there will be risk to human health if an activity is undertaken on and/or in this piece of land. Therefore, a Detailed Site Investigation (DSI) is required prior to soil disturbance occurring on the Site. However, the applicant has not provided a DSI and proposes to undertake the necessary investigations prior to commencing construction.
  
- 58. I understand that this approach was agreed to in-principal by Greater Wellington Regional Council and conditions requiring a DSI have been imposed on Consent WAR240183: *To undertake earthworks, including disturbance of contaminated land, and disturbance to a natural inland wetland associated with the construction of a solar renewable energy generation facility.*
  
- 59. As such further site investigations will be completed prior to the commencement of construction. Once contaminants have been identified, appropriate management plans will be developed to ensure soil disturbance and disposal are undertaken in accordance with industry standards.
  
- 60. Consequently, I consider that disturbance within, and potential removal from, the Site of contaminated soils can be managed to the extent that actual and potential effects will be no more than minor, provided the same consent conditions imposed on WAR240183 are applied to this consent.

## National Environmental Standards for Electricity Transmission Activities 2009

61. I understand that a connection to the Masterton Substation via a new underground cable is proposed. However, this connection requires approval from Transpower, and any consents required under the NES-ETA will be applied for once detailed design has been undertaken. Therefore, I have not addressed the NES-ETA in terms of this application.

## National Policy Statement for Highly Productive Land

62. Part of the Site (approximately 67ha (45.6%)) on the eastern side is identified as highly productive land: LUC 3. As such an assessment against the relevant clauses in the NPS-HPL was submitted with the application (Appendix 19 of the application).
63. At the time of lodging the application, Clause 3.9 (2)(j)(i) read as follows:
- A use or development of highly productive land is inappropriate except where at least one of the following applies to the use or development, and the measures in subclause (3) are applied:*
- (j) it is associated with one of the following, and there is a functional or operational need for the use or development to be on the highly productive land:*
- (i) the maintenance, operation, upgrade or expansion of specified infrastructure:*
64. The wording was ambiguous as to whether it specifically provided for 'new' specified infrastructure i.e. a renewable energy generation activity such as a solar farm. However, in August 2024, the Government amended that clause to read as follows:
- (j) it is associated with one of the following, and there is a functional or operational need for the use or development to be on the highly productive land:*
- (i) the development, operation, or decommissioning of specified infrastructure, including (but not limited to) its construction, maintenance, upgrade, expansion, replacement, or removal:*
65. The amendments came into effect on 14<sup>th</sup> September 2024. Whilst this is after the application was lodged, Part 4: Timing of the NPS-HPL states 'Every local authority must give effect to this National Policy Statement on and from the commencement date (noting that, until an operative regional policy statement contains the maps of highly productive land required by clause 3.5(1), highly productive land in the region must be taken to have the meaning in clause 3.5(7)).'
66. It does not impose any restriction on applying the 2022 version to applications lodged prior to 14<sup>th</sup> September 2024 and in my opinion, it would be unfair and unreasonable to do so.
67. As such, the use of the Site for the development and operation and decommissioning of specified infrastructure (a solar farm) is specifically provided for. I also agree with the applicant that the agrivoltaic activity has an operational need to be in this location due to its proximity to a

viable connection point to the national grid (Masterton substation), which has sufficient capacity. Therefore, the proposal is not an inappropriate activity on highly productive land.

68. However, under Clause 3 of the NPS-HPL, Territorial authorities must take measures to ensure that any use or development on highly productive land:
- (a) minimises or mitigates any actual loss or potential cumulative loss of the availability and productive capacity of highly productive land in their district; and
  - (b) avoids if possible, or otherwise mitigates, any actual or potential reverse sensitivity effects on land-based primary production activities from the use or development.

69. Territorial authorities must include objectives, policies, and rules in their district plans to give effect to this clause.

Productive capacity is defined in the NPS-HPL to mean:

*'the ability of the land to support land-based primary production over the long term, based on an assessment of:*

- (a) physical characteristics (such as soil type, properties, and versatility); and*
- (b) legal constraints (such as consent notices, local authority covenants, and easements); and*
- (c) the size and shape of existing and proposed land parcels.'*

70. In my opinion, the range of primary production activities that can be undertaken on the land will be reduced as it will not be possible, for example, to graze large animals amongst the panels or grow particular crops. However, it is possible to use it for some pastoral activities and high value horticultural activities (including utilising the shade provided by the panels). The other two criteria of legal constraints and the size and shape of existing and proposed land parcels are not relevant to this Site.

71. Overall, the proposal meets the requirements of the NPS-HPL in that it minimises the actual loss of any HPL and productive capacity as it allows for the land to support land-based primary production in the long term. Consequently, I have placed little weight on the 40-year life of the proposal. I also agree with the applicant that the solar farm is not sensitive to existing rural activities as dust from surrounding activities can be washed off the panels and it is therefore not anticipated to result in reverse sensitivity effects. Overall, in my opinion, this proposal is consistent with the various matters to consider for a development to be appropriate on highly productive land.

### **National Policy Statement for Indigenous Biodiversity (NPS-IB)**

72. The applicant has included an assessment against the provisions of the National Policy Statement for Indigenous Biodiversity in Appendix 19 of the AEE. However, Clause 1.3(3) of the NPS-IB clearly states:



*Nothing in this National Policy Statement applies to the development, operation, maintenance or upgrade of renewable electricity generation assets and activities and electricity transmission network assets and activities. For the avoidance of doubt, renewable electricity generation assets and activities, and electricity transmission network assets and activities, are not "specified infrastructure" for the purposes of this National Policy Statement.*

73. Therefore, I have not addressed the NPS-IB in terms of this application.

#### **National Policy Statement for Electricity Transmission (NPS-ET)**

74. There is sufficient information to be able to undertake an assessment of the proposal against the objective and policies of the NPS-ET. I agree with the applicant's assessment of the Policy Statement for Electricity Transmission in Appendix 19 of the application.

#### **National Policy Statement for Renewable Electricity Generation 2011**

75. The National Policy Statement for Renewable Electricity Generation 2011 (NPS-REG) responds to the need to develop, operate, maintain and upgrade renewable electricity generation activities throughout New Zealand and that the benefits of renewable electricity generation being matters of national significance in New Zealand.

76. The NPS-REG is directly relevant to the assessment of this proposal for a solar farm which is a renewable energy generation facility. I agree with the applicant's assessment of the National Policy Statement for Renewable Electricity Generation 2011 in Appendix 19 of the AEE.

#### **National Policy Statement for Freshwater Management (NPS-FM)**

77. I note the application assesses the National Policy Statement for Freshwater Management (NPS-FM). The NPS-FM is primarily relevant to the resource consents from the Regional Council and has been considered in determining those consents.

#### **Wellington Regional Policy Statement (WRPS)**

78. The Wellington Regional Policy Statement (RPS) became operative on the 24<sup>th</sup> of April 2013. The RPS is designed to achieve the purpose of the RMA by providing an overview of the resource management issues for the region, and stating the policies and methods required to achieve the integrated management of the region's natural and physical resources.

79. The applicant evaluated the RPS in its application which I generally agree with. However, the application only briefly evaluated the Energy provisions in the RPS.
80. Energy is one of the themes set out in RPS and the objectives and policies are relevant to the assessment of this proposal. I have set out the relevant energy objectives and policies below.

*Objective 9 The region's energy needs are met in ways that:*

- (a) improve energy efficiency and conservation;*
- (b) diversify the type and scale of renewable energy development;*
- (c) maximise the use of renewable energy resources;*
- (d) reduce dependency on fossil fuels; and*
- (e) reduce greenhouse gas emissions from transportation.*

*Objective 10*

*The social, economic, cultural and environmental, benefit of regionally significant infrastructure are recognised and protected.*

*Policy 7: Recognising the benefits from renewable energy and regionally significant infrastructure – regional and district plans.*

*Policy 39: Recognising the benefits from renewable energy and regionally significant infrastructure – consideration.*

81. Given the number of small, and large scale, solar farms consented or proposed in this locality alone, I do not consider that the proposal will diversify the type and scale of renewable energy development. However, that, in my opinion, does not make the proposal contrary to the overall intent of Objective 9 but neither does it fully achieve it.
82. Overall, I consider that the proposal generally achieves the objectives and policies in the RPS as it will maximise the use of renewable energy resources; and reduce dependency on fossil fuels, which will assist in managing climate change: a benefit of renewable energy. It will also enable dual land use with farming being undertaken beneath and around the panels. Potential and actual adverse effects on the environment will also be avoided or appropriately managed.

### **Operative Wairarapa Combined District Plan**

83. The Operative Wairarapa Combined District Plan became operative on 25<sup>th</sup> May 2011. The applicant has undertaken a comprehensive assessment of the proposal against the relevant objectives and policies in Appendix 16 to the application. For completeness, I have set out a summary of the relevant objectives and policies below.
84. Rural: the rural objectives and policies seek to maintain and enhance the amenity values of the Rural Zone by controlling subdivision and managing the bulk, location and nature of activities and buildings to maintain a sense of openness and predominance of vegetation. They also provide for the establishment and operation of a range of other activities in the Rural Zone provided their adverse effects on the

environment are appropriately avoided, remedied or mitigated. Reverse sensitivity effects are also sought to be managed.

85. Tangata Whenua – the relevant objective seeks to recognise and provide for the cultural values and relationship of Tangata Whenua in managing the natural and physical resources and the effects of activities. This is achieved, amongst other methods, by providing for Tangata Whenua to maintain and enhance their traditional relationship with the natural environment and exercise kaitiakitanga.
86. Outstanding Landscape & Natural Features – Wairarapa's outstanding landscapes and natural features are sought to be identified and protected from the adverse effects of inappropriate subdivision, use and development.
87. Biological Diversity – the aim of the objectives is to maintain and enhance the biological diversity of indigenous species and habitats within the Wairarapa, whilst protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna. This is to be achieved by (not exclusively) controlling the further destruction or irreversible modification of areas of indigenous vegetation or habitats which may have significant biodiversity value. As well as protecting the ecological integrity of areas with significant biodiversity values and managing adverse effects on indigenous wildlife and indigenous ecosystems that result from the use, and development of a site.
88. Environmental Quality – the outcome sought by the objective, of relevance to this proposal, is to maintain or enhance the environmental quality of the Wairarapa's wetlands by managing the detrimental effects of development and activities. This will be achieved by managing the design, location and scale of land use adjoining waterbodies so they retain their natural character by encouraging the development or maintenance of planted waterbody margins.
89. Public Access & Enjoyment – the objective seeks to facilitate public access to, and enjoyment of, Wairarapa's wetlands in a manner that preserves their natural character and the property rights of adjoining landowners, whilst not causing detrimental effects on freshwater environments. Activities that could have an adverse effect on people's use and enjoyment of the freshwater environment should be controlled.
90. Contaminated Land – the objective seeks to ensure that when contaminated land is redeveloped that the adverse effects of the land's contamination on the environment and future uses of the land are avoided or remedied. This is to be achieved by recognising that redevelopment of the land needs to be controlled to ensure any potential adverse effects arising from the contamination are avoided, remedied or mitigated. This includes requiring landowners to undertake contaminant removal and appropriate disposal or treatment to contain the contaminant.
91. Energy Generation and Efficiency – It is intended to move the Wairarapa towards a sustainable energy future by encouraging energy efficiency

and the generation of energy from renewable sources. The policies seek to recognise and manage appropriate development of the Wairarapa's significant potential renewable energy resource, while, as far as practicable, avoiding, remedying or mitigating adverse effects. It is also necessary to recognise the technical and operational requirements of energy generation and distribution and its benefits to the wellbeing of the Wairarapa when assessing applications for resource consent.

92. Managing the Road Network – the objective and policies seek to maintain the safe and efficient operation of the road network from the adverse effects of land uses while maintaining the networks' ability to service the current and future needs of the Wairarapa. This includes managing loading, parking and manoeuvring.
93. General Amenity Values - General amenity values are sought to be maintained and enhanced. The policies seek to control the levels of noise, based on existing ambient noise and accepted standards for noise generation and receipt, and manage activities that would have unacceptable visual effects on amenity values.
94. The applicant addressed the objectives and policies in Section 18: Subdivision, Land Development & Urban Growth, which I do not consider to be particularly relevant because this section relates to developing and subdividing land for housing and business purposes. I also note that the applicant included the objectives and policies related to public access to, and enjoyment of, Wairarapa's waterbodies, but the assessment in Appendix 16 discusses ecological values. In my opinion, the objective identified is not relevant as it relates to existing public access and public access to waterbodies of significant value, and no such access is currently provided, nor are there any significant waterbodies within or adjacent to the Site.
95. I also do not consider that the applicant has fully addressed the Rural zone objectives and policies, in particular effects on rural character.
96. I note that Anticipated Environmental Outcomes for the Rural Zone include 'diverse activities that are compatible with the rural environment in scale, amenity and character.' This outcome is addressed by the applicant as follows: *The proposal seeks to establish approximately 3,720m<sup>2</sup> of gross floor area for such unanticipated activities. When this exceedance is considered as a percentage of the total site area (147ha), this equates to roughly 0.25% of the site area.* I am unsure how the gross floor area has been calculated as no such figure is included in the proposal section of the application. It also seems very low considering the scale of the solar farm.
97. I consider that the policies are meant to be considered on a holistic zone, not a site by site, basis. The locality of the Site when viewed from State Highway 2 is not particularly open as the road is contained within a corridor of trees screening views into adjoining land, especially along the boundary with the subject and adjoining sites. As such, it is not a particularly open landscape. However, when viewed from Cornwall Road and the majority of the boundary with Hughes Line, unobstructed

views of open farmland are obtained, and the landscaping associated with this proposed solar farm will change that character. The Landscape and Visual Effects Assessment (LVEA) and peer review of that assessment concluded that the proposed landscape planting will contain the influence of the proposed development and ensure the wider landscape retains its predominately rural character. As such, the proposal generally meets the intent of the rural zone objectives and policies in relation to rural character.

98. With regard to the remainder of the assessment, I agree with the applicant's assessment and that overall, the proposal is consistent with the objectives and policies of the Operative Wairarapa Combined District Plan.

### **Proposed Wairarapa Combined District Plan**

99. The Proposed Wairarapa Combined District Plan was notified in October 2023 and submissions are currently being heard by a hearing panel. The applicant has undertaken a comprehensive assessment of the proposal against the relevant objectives and policies in Appendix 17 to the application. For completeness, I have set out a summary of the relevant objectives and policies below.
100. General Rural Zone – the purpose of the General Rural Zone is to provide for primary production, activities that support primary production, and other activities that have a functional need or operational need to be located within the General Rural Zone. The objectives and policies support this intent whilst maintaining and enhancing the predominant character of the Zone, being areas supporting crops, pastoral farming and forestry with a low density of development retaining open space between buildings that are predominantly used for agricultural, pastoral and horticultural activities (e.g. barns and sheds). There is also a range of noises, smells, light overspill, and traffic, and the presence of the National Grid is specifically noted. The policies also seek to protect highly productive land.
101. Other activities are recognised as needing to establish in the General Rural Zone provided, they are not incompatible with primary production activities and the character of the rural zone or fragment the land or create reverse sensitivity effects.
102. Energy – the objectives and policies recognise the benefits of renewable electricity generation (REG) energy and seek to minimise adverse effects of such development on communities and the environment, while acknowledging operational and locational constraints. The policies provide for a move towards low emission energy and large-scale renewable electricity generation. They have regard to the benefits, location, technical and operational constraints, and the capacity of existing infrastructure to accommodate new REG as well as associated activities such as earthworks, potential adverse effects including traffic generation, light and noise. The policies also seek to minimise cumulative effects and potential effects on productive capacity.

103. Network Utilities – the objective and policies recognise and provide for effective, efficient, reliant and safe network utilities, whilst managing adverse effects on the environment and protecting utilities from adverse effects. The National Grid is specifically identified, seeking to ensure the operation and development of the Grid is not compromised.
104. Transport – the plan supports a well-connected, integrated and safe transport network. Of particular relevance to this proposal is that the safe and efficient operation of the road network is not compromised by development. The policies also seek to protect the operation of Hood Aerodrome.
105. Ecology and Indigenous Biodiversity – the objective is that biological diversity and indigenous species and habitats are maintained, enhanced or restored. This is achieved by enabling some modification of vegetation outside of areas of significance and managing activities to ensure adverse effects on biological diversity are avoided, remedied or mitigated. Furthermore, natural character is preserved and enhanced through managing the design, location and scale of development and land uses adjoining waterbodies. Buildings and structures in the Rural Zone must be setback at least 10 metres from the edge of a wetland unless there is an operational or functional need to be located closer or within the wetland.
106. Light – the objective and policies seek to manage the use of artificial light to maintain and enhance amenity values and minimise light spill and glare.
107. Noise – the objective seeks that adverse effects from noise are compatible with the anticipated purpose, character and amenity values of the relevant zone, and do not compromise the wellbeing of people and communities. Having particular regard to this proposal, matters to consider when determining the appropriateness of noise effects are, the extent to which the noise will be internalised to the site of the activity; the frequency, intensity, duration and offensiveness of the noise, and the degree to which the noise breaks the permitted noise standards for the receiving zone. In addition, the positive effects of a noise generating activity are also to be considered.
108. Signs – the objectives and policies provide for signage that does not compromise the anticipated character and amenity of the receiving environment.
109. I generally agree with the applicant's assessment against the objectives and policies of the Proposed Wairarapa Combined District Plan in Appendix 17 of the AEE. However, the applicant has not addressed the need to maintain the character and amenity of the General Rural Zone, in particular its openness and separation between structures. I consider this to be an overall intent that applies to the zone rather than on a site by site basis.
110. I rely on the applicant's landscape and visual assessment and peer review undertaken by Boffa Miskell (and appended to this report) to

determine that the Site will change in character from one having a low density of buildings, and a sense of openness to one containing a significant number of structures. However, the existing vegetation in the landscape surrounding the Site, in combination with proposed mitigation planting, will effectively contain the influence of the proposed development, ensuring that the wider landscape retains its predominantly rural character. As such, the intent of the policies to maintain existing rural character will be achieved. In addition, the proposal will enable the use of the land for both renewable electricity generation and primary production.

111. With regard to the remainder of the objective and policy analysis, I agree with the applicant's assessment and that overall, the proposal is consistent with the objectives and policies of the Proposed Wairarapa Combined District Plan.

### **ASSESSMENT OF EFFECTS OF THE ACTIVITY ON THE ENVIRONMENT**

112. The effects of the proposed activity on the environment are assessed under Section 104(1)(a) of the RMA. As this application is a discretionary activity, in undertaking this assessment, I am not limited in the matters that I can consider. The applicant has provided significant documentation describing mitigating aspects of the operation.
113. The applicant has submitted an Assessment of Environmental Effects with associated documents including Acoustic Assessment, Transportation Assessment, Ecological Assessment, Engineering report, Stormwater Management Plan, Contamination PSI, Landscape Assessment, Glint and Glare Assessment and a Landuse Capability Assessment.

### **Landscape, Visual Amenity and Rural Character**

114. The proposal does represent a change to the visual appearance of the Site given that it will introduce agrivoltaic development to a site that is currently utilised for agricultural purposes. The applicant submitted a Landscape Assessment undertaken by Mansergh Graham Landscape Architects which included a mitigation planting plan that defined a 10m wide buffer strip around the external perimeter of the Site for fencing, access, and mitigation planting. The mitigation planting will be maintained at a height of between 2m and 3m.
115. The mitigation planting will be established immediately following the construction of the perimeter fence and is likely to take between 3-4 years to substantially screen the proposal from view (i.e. there will still be some gaps between and through the mitigation planting) and it will take 4-6 years to achieve full closure - an impervious screen.
116. The assessment noted that with the mitigation planting in place, the adverse effects of the proposed agrivoltaic development on existing visual amenity values will range from very low to low from surrounding viewer locations. The exception to this will be the effects on 3920 State

Highway 2 which will be low-moderate at the lower storey and, moderate-high from the upper storey of the dwelling on that property.

117. The applicant's landscape architect in a subsequent memo noted that the construction assessment concludes that "I would expect the magnitude of the temporary effects to be one order of magnitude higher on the seven-point rating scale identified in the LVEA (i.e. if the permanent effect level is low then the temporary effects during construction and until the mitigation planting becomes established will be low-moderate)."
118. This landscape assessment was reviewed by Alex Gardiner, Senior Landscape Architect, Boffa Miskell Ltd who made the following conclusions:
- The effects on landscape character for operational effects will be low-moderate, and during construction effects will be moderate overall. The construction effect and the effect experienced prior to the establishment of mitigation planting will gradually increase from low to moderate-high: the greatest effect experienced at the peak of construction through to completion of construction.
  - There will be no effects that would be deemed unacceptable from a landscape and visual perspective, and the mitigation proposed is considered to be appropriate.
  - The assessment acknowledges that the character of the Site will transform however identifies that by siting the solar farm in this location, and consolidating growth alongside an already established industrialised area, this mitigates broader effects on rural character. The proposed development will alter the character of the Site from a rural landscape to a renewable energy landscape with grazing. Existing vegetation in the landscape surrounding the Site, in combination with proposed mitigation planting, will effectively contain the influence of the proposed development, ensuring that the wider landscape retains its predominantly rural character.
  - General agreement with the findings of the viewpoint assessment. However, for residents living at properties at 542 and 532 Hughes Line, the introduction of 2m-3m high mitigation planting along the southern boundary of the Site will notably alter the character of the view for these residents. Therefore, it was assessed the effect should be increased to low-moderate.
  - Based on the information provided by the applicant and field reconnaissance and appraisal, it was assessed that the proposed development can be supported, provided the proposed mitigation and conditions are delivered.
119. Based on the advice of the applicant's landscape planning expert and the findings of the review commissioned by the Council, I consider that effects on landscape character in relation to operation of the solar farm will be minor (low-moderate) and during construction, will be more than



minor (moderate). The rural character of the Site will change but any effects will be contained within the Site once mitigation planting is fully established, and the overall rural character of the surrounding area, generally to the south and west, will be retained.

120. With regard to effects on visual amenity, the applicant provided a detailed assessment of effects on a number of properties. This included 3920 State Highway 2 owned by Ms Emerson, who raised concerns about effects on visual amenity in her submission. The landscape assessment acknowledges that until the mitigation planting reaches maturity, this property will experience moderate to high (more than minor) adverse effects on visual amenity from the garden and lower storey, which will reduce to minor (low-moderate) once mitigation planting achieves maturity. However, effects on landscape and visual amenity values experienced from the upper storey of this dwelling will remain more than minor (moderate-high). That said, long range views of the rural environment and the Maungaraki Range will be maintained. I also acknowledge that the Council commissioned review has identified that the proposed mitigation planting will alter views from 542 and 532 Hughes Line, and effects will be minor (low-moderate).
121. The applicant has proposed an extensive screen planting to mitigate adverse visual and landscape effects on the rural landscape and surrounding properties. However, the proposal represents a long term change to the character of the Site and whilst the proposed mitigation will assist in containing effects on the rural character of the area, it will also alter the views/visual amenity experienced by residents in this locality. In particular, I acknowledge the high level of effect on visual amenity and views obtained from the upper storey of the dwelling at 3920 State Highway 2. That said, this is from bedrooms rather than living areas and the long range views of the surrounding area will be retained. The submitter also chose not to be heard and so I am not able to fully understand the effect of this change on the occupiers of this dwelling.
122. Consequently and acknowledging the effects and changes set out above, I consider that if the proposed mitigation is implemented and conditions imposed, then the majority of the adverse effects on rural character and visual amenity can be appropriately managed and will be acceptable.

### **Glint and Glare**

123. The proposed photovoltaic panels are designed to maximise the amount of light they receive and absorb, and have an anti-reflective coating. The applicant undertook an analysis that glare will not be experienced at any of the fixed observer locations.
124. However, without mitigation, up to 69 minutes of green glare (low potential for temporary after image) and 6 minutes of yellow glare (potential for temporary after image) per annum may be experienced along a short section of Hughes Line in late April and mid-August. No other roads or railways will be effected. The PV tracking tables will either be held back at an angle prior to reaching the offending angle for the

duration of the affected period. Or, the panels will transition forward to an angle beyond the offending angle shortly prior to the affected period.

125. Additional glint and glare modelling was undertaken to analyse the potential for glint and glare effects on the approach paths for the nearby Hood Aerodrome. This analysis found that the PV modules in the south-eastern section of the proposed development will result in glint and glare effects on planes utilising Approach Path 6 for approximately 55 minutes each day. Applying the same mitigation measure of manipulating the PV tracking table software to avoid the offending angles at the appropriate time each day will be sufficient to ensure that the glint and glare effect on passing planes is within acceptable levels. I note that Hood Aerodrome provided their written approval to the proposal provided conditions managing glint and glare were included in the consent (if granted). I agree with this approach, although I have amended the wording not the intent of the conditions. In brief, the main changes to the conditions relate to specifying who are 'affected persons', taking out the detail on the mitigation measures and allowing the Glint and Glare Adaptive Management Plan to address these. I have also included the implementation framework and annual reporting requirement as separate conditions.
126. It is noted that the glint and glare assessment is also supported as part of the Council commissioned review of the LVEA undertaken by Boffa Miskell.
127. Overall, through application of the proposed mitigation measures to manipulate the tracking of the panels to avoid specific positions, I consider the proposal will result in less than minor glint and glare effects.

### **Acoustic Effects**

128. The solar farm is considered one of the quietest forms of renewable energy. However, there are a number of components such as the BESS units, inverters, switch yard and substation which do generate noise. The application was supported by an Acoustic Assessment prepared by the Styles Group which is summarised as follows.
129. The BESS area has been located to achieve a separation distance from existing dwellings. The acoustic modelling undertaken by the Styles Group demonstrates that the acoustic emissions from the proposed development (operational noise) will comply with noise limits at all existing notional boundaries. The acoustic modelling did not identify any need to establish acoustic mitigation as part of the proposal. I also note that the site on the opposite side of Cornwall Road is subject to a recently granted consent to establish a solar farm. If a residential dwelling is constructed on adjoining land in the future, it would likely be at least 800 metres to the south of the BESS.
130. A construction noise management plan (CNMP) was recommended and proffered as a condition to mitigate any potential noise / vibration effects during construction. I agree with this approach and have

included such a condition. I also consider it appropriate, given the number of residential properties in the vicinity of the Site, to require the applicant to engage a suitably qualified and experienced acoustic expert to prepare an acoustic assessment that demonstrates the selected plant and layout arrangements achieves compliance with the noise limits set out in the conditions. This assessment is to be undertaken within six weeks of the solar array becoming operational.

131. Overall, I consider that the proposal will result in less than minor acoustic effects due to the location of noise generating activities within the Site, the requirement to prepare a CNMP and the preparation of a post-construction acoustic assessment.

## **Transport**

132. A Transportation Assessment prepared by Don McKenzie Consulting Ltd was submitted as part of the proposal.
133. Once operational, the Site will have permanent access onto the public road network along Cornwall Road with staff regularly accessing the Site for maintenance and security purposes. Don McKenzie Consulting Ltd assessed that the Site will generate no more than six (3 in and 3 out) car or small van traffic movements on any given day, therefore there will be no discernable effect on the safety or efficiency of the surrounding road network. The site entrance off Cornwall Road is located approximately 200m from the entrance to the nearby substation and agricultural yard (on the other side of Cornwall Road) avoiding potential conflict between vehicles entering and exiting these sites. The site entrance will also have at least 750m clear sight lines in both directions ensuring safe ingress and egress to and from the Site.
134. The more notable transportation effects of the proposal are largely related to the construction phase which will comprise no more than a total of 60 traffic movements (light and heavy vehicles) across the course of the day during times of peak construction. The transportation assessment determined that such volumes of both light and heavy traffic are low and unlikely to have a noticeable effect on the road network. As all parking for staff and construction vehicles will be provided on-site including during the construction and operational phases, no adverse parking outcomes are expected.
135. Construction traffic entering and departing from Cornwall Road will travel west to State Highway 2 and from Hughes Line will travel west towards State Highway 2 via Cornwall Road or via East Taratahi Road. There will be no direct access onto State Highway 2 from or to the Site. The site access onto Hughes Line is approximately 190 metres to the south of the Hendriske property at 532 Hughes Line. However, the residential dwelling is setback approximately 109 metres from the road boundary.
136. However, to ensure that traffic generated during construction does not affect the safe and efficient operation of the road network, I consider it

appropriate to require the preparation of a Construction Traffic Management Plan. This requirement for a management plan will be imposed by way of condition of consent. I also note that no submitters raised any concerns related to traffic generation.

137. Overall, I consider that the proposal will not affect the safe and efficient operation of the road network if undertaken as proposed and a Construction Traffic Management Plan is required.

### **Contamination Effects**

138. A Preliminary Site Investigation has been undertaken and submitted as part of the application which indicated that the Site has been subject to HAIL activities. In particular HAIL activities A.16, A.10, A.17, G.5 and E.1. These are associated with the use of the western side of the Site for effluent disposal from the former AFFCO fellmongery that was located on the opposite side of State Highway 2.
139. The PSI noted that pursuant to regulation 8(4)(b) of the NESCS, it is highly likely that there will be risk to human health if the Proposal is undertaken on the piece of land. The PSI identified the following contaminants are likely to be found during detailed soil testing:
- From fellmongery activity: metals, hydrocabons, sulfides; acids and bleaching agents; cyanides; formaldehyde; pentachlorophenol; dioxins; nitrates; and
  - From existing structures: asbestos; and
  - From potential horticultural land use: organochlorine pesticides.
140. These contaminants pose a risk to human and ecological health, therefore a Detailed Site Investigation (DSI) is required prior to soil disturbance on the Site.
141. Once the actual contaminants and their levels have been identified, appropriate management plans will be developed to manage soil disturbance and disposal in accordance with industry standards. I also understand from the PSI that some remedial work including digging out the effluent pond has been undertaken in the past, so may have reduced the level of contamination that may be found. Furthermore, nitrate levels in groundwater have been reducing over the past 5 or so years.
142. Therefore, as discussed under the NES-CS above, I consider that contaminated soils within the Site can be managed to the extent that actual and potential effects will be no more than minor, provided that the same consent conditions imposed on WAR240183 are applied to this consent.

### **Earthworks**

143. The Site is relatively flat, and earthworks will be limited to topsoil stripping to construct access tracks, hardstand areas and trenching for cabling. All earthworks will be contained within the Site; however, it is noted that

the final nature and extent of the earthworks may be dependent on the findings of the DSI for contamination.

144. Any runoff generated during the earthworks will likely disperse overland within the Site, soaking to ground, but there is the potential for fine sediment mobilisation and runoff into the Taratahi water race / Waikoukou Stream and wetlands.
145. To prevent and mitigate any adverse environmental effects during the earthworks, the applicant proposes that all works will be carried out in accordance with an Erosion and Sediment Control Plan (ESCP) prepared in accordance with best practice guidelines, prepared in accordance with Condition 4 of WAR240183.
146. I agree with the applicant that, with the implementation of erosion and sediment controls including the treatment of stormwater prior to discharge, potential effects on water quality in the receiving environment during construction will be effectively managed. I recommend imposing similar conditions of consent to those applied to WAR240183.
147. In my opinion, the adverse effects related to earthworks can be appropriately managed through an ESCP and conditions of consent.

### **Services**

148. Wastewater & water are limited to the site office with options available for a portable toilet or on-site holding tanks along with rain tanks for water collection and use.
149. Solar farms do pose a fire risk. As such firefighting storage capacity will be supplied via multiple dual water tanks located across the Site with suitable access for emergency vehicles. This matter relates to providing for the health and safety of people and property, and I recommend that a Fire and Emergency Management Plan is required to be prepared as a condition of consent, as proposed by the Applicant. It will address emergency service access, emergency response procedures, confirm the provision and location of an onsite firefighting water supply, and fire risk management measures and procedures.
150. The firefighting water supply will also be used for panel maintenance when the panels require washing. An application to take water has been lodged with the Carterton District Council to take water from the Taratahi water race to be used for this purpose. If this application is unsuccessful, water will can be trucked onto the Site and stored in the tanks.
151. Overall, I consider that the Site can be appropriately serviced, and that the proposal will not result in adverse effects on the environment.

### **Ecological Effects**

152. The Site includes a number of ecological features, including the Taratahi water race / Waikoukou Stream (which is considered a river under relevant planning provisions), several natural inland wetlands, several areas of potential herpetofauna habitat, and a number of trees that could be roosting sites for indigenous long-tailed bats. An Ecological Assessment prepared by EcoLogical Solutions was submitted as part of the application and assessed the ecological values, and any potential adverse effects on these values. No review of the ecological assessment was sought and none of the submissions raised concerns about ecological values.

### Vegetation

153. Construction of the proposed development will result in the removal of scattered exotic trees. In addition, existing mature vegetation comprising shelterbelts / hedgerows, particularly around the northern site perimeter will be trimmed/topped. The willow woodlot located in the southern portion of the Site is excluded from the proposed development and is to be retained. The Mitigation Planting Plan in the Landscape Assessment provides details on vegetation to be retained and new areas of planting.

154. Vegetation within the Site has been determined to have low ecological value being mainly exotic trees and pasture, but of very high ecological value in terms of its potential to provide habitat for indigenous species, particularly herpetofauna and long-tailed bats, and, to a lesser extent, avifauna. Effects on indigenous fauna are discussed below.

155. With regard to the removal/trimming of exotic trees within the Site to facilitate the construction of the agrivoltaic facility, the ecological assessment has deemed this to have an overall effect ranging from 'very low' to 'low' related to the vegetation itself and not its value as a habitat for indigenous species. I consider this to equate to a less than minor effect and overall acceptable.

### Avifauna

156. The proposal will result in the removal and trimming of a number of exotic trees that have potential to provide nesting habitat for common native and exotic bird species typically found in the rural environment. While the majority of birds within the Site are expected to be common species of no conservation interest, vegetation clearance or trimming (particularly of mature trees) can adversely affect native species when completed over the breeding season (September to February, inclusive).

157. EcoLogical Solutions recommends that vegetation clearance occur within the autumn to winter months so as to not adversely affect the breeding season. If vegetation clearance occurs during the breeding season, other mitigation techniques such as avoiding trees containing nests until chicks have fledged should be implemented to minimise effects.

158. I consider that effects on avifauna can be effectively managed by imposing consent conditions that require trees to either not be felled or trimmed during the bird breeding season or for a bird survey to be undertaken, if the breeding season cannot be avoided.

#### Herpetofauna

159. Part of the proposed access track in the northern portion of the development area intersects with potential lizard habitat. The applicant's ecological assessment identifies that utilising an existing farm track through this area of habitat would avoid effects on the habitat or individual lizards. I agree with this approach but it is unclear whether this recommendation has been adopted by the applicant and the existing track may need to be widened to accommodate a fire truck.

160. With regards to PV module installation, the stonefield in the northern portion of the development area and the large boulder pile in the southwestern portion could both be affected (these locations are shown in Figure 17 of the Ecological Assessment). EcoLogical Solutions recommends the avoidance of these areas of habitat as to avoid effects on the habitat or individual lizards. The applicant has laid out the panels to avoid these areas and in doing so, would also avoid any adverse impacts of excessively shading areas of potentially suitable lizard habitat. However, should lizards need to be relocated, this could be undertaken by a SQEP, noting that a Wildlife Act Permit would also be required. I also recommend that a Lizard Management Plan be prepared and that a condition of consent require this. Furthermore, pest management should be required in any areas into which lizards are relocated.

161. Overall, I consider that the construction and operation of the proposed development will have a less than minor (low magnitude of effect) on herpetofauna and potentially suitable habitat. Other than avoiding the stonefield and boulder pile, no other mitigation measures are proposed unless lizards are likely to be impacted by the proposal and/or require relocation.

#### Long-Tailed Bats

162. I understand from the EcoLogical Solutions assessment that long-tailed bats (pekapeka), a threatened-nationally critical species, may be present within the Site, using it for foraging and potentially roosting. If they are present at the Site, this would mean that their habitat (namely roosting trees) would have at least a high ecological value. Furthermore, proximity to other locations of anticipated and/or known bat habitat means that it is likely that bats use this area. However, knowledge of bat presence is unknown at this time as site-specific bat monitoring has not yet been completed.

163. Pekapeka/Long-tailed bats are edge foragers, typically feeding along the edges and above canopies of trees rather than within a forest's interior. They also use vegetation for commuting between roosting and foraging sites, this means that the loss of vegetation along these routes

can potentially lead to the fragmentation and isolation of bat communities.

164. Furthermore, roost trees are likely uncommon and utilised to fulfil specialised requirements. Therefore, felling such trees (even when bats are absent) could have a disproportionately adverse effect on the local bat population. If the number of suitable roosts and their surrounding habitat is reduced, bats are forced to use roosts that are less optimal for their needs. This means they will use more energy to survive, adversely impacting on survival and reproductive rates. In this way, roost removal creates an increased risk of local extinction. Vegetation clearance also has the potential to cause injury, potentially even mortality to long-tailed bats if they are roosting in a tree when the clearance or trimming occurs.
165. The applicant has proposed that prior to commencing construction works, initial bat monitoring will be undertaken to confirm if long-tailed bats are present at the Site. The outcome of this monitoring will determine if mitigation or avoidance measures are required to protect the habitat. A Bat Management Plan ('BMP') will be prepared by a suitably qualified and experienced ecologist prior to undertaking works on-site.
166. I am somewhat uncomfortable with this approach, as best practice would be to determine bat presence prior to lodging an application, so a determination can be made about the nature and level of any adverse effect(s) on the bats and the appropriateness of any proposed management measures. In lieu of this information, the applicant's ecologist has taken a conservative approach and assessed the level of effect on bats and bat habitat to be more than minor (moderate).
167. I have read the Expert Panel decision that granted consent to the Harmony solar farm on the adjoining site to the south (Paras 7.106 to 7.138). Bat monitoring was undertaken on that site prior to lodging the application, which confirmed that pekapeka frequently utilised the area, likely for foraging along shelterbelts and commuting between forest patches in the vicinity. Sporadic roosting may also possibly occur. The ecological value of pekapeka on that site was assessed in the Ecological Assessment as "very high".
168. At this time, I do not know if pekapeka use or roost within the subject Site (although this seems likely given their presence immediately to the south) or whether any roosting trees or shelterbelts/vegetation used for foraging may need to be removed from the Site, although I note that the woodlot in the southwest of the Site is being retained, which may assist in minimising any potential adverse impacts on bats. I also understand that there is some uncertainty regarding risks to bats from solar farms i.e. collisions with panels. Furthermore, effects on bats will need to consider cumulative effects arising from the clustering of 2 or 3 solar farms in one location.
169. Given this lack of certainty about bats within the Site, the effects management hierarchy cannot be applied (avoid, remedy, mitigate, offset or compensate as per the EIANZ: The Ecology Impact Assessment



(EclA) Guideline, 2018). The need for, or scale of, any offset or environmental compensation that may be required is also not known at this time. However, in my opinion, (whilst not best practice) this can be managed through robust conditions of consent including the requirement to engage a suitably qualified expert to undertake bat monitoring prior to construction, prepare a Bat Management Plan and undertake bat monitoring during the operation of the solar farm: essentially an adaptive management approach. Although, this is a risk to the applicant who may need to amend their proposal if bats are found on site to avoid effects on bats.

### **Reverse Sensitivity Effects**

170. With regards to agrivoltaic developments, there is limited potential for reverse sensitivity to occur, with the greatest risk being activities that would shade the PV modules access to sunlight, and activities that would generate dust which could then accumulate on the modules, thus impacting on their efficiency to generate solar energy and noise sensitive activities.
171. In this instance, the proposal is setback from all site boundaries by at least 10m, which mitigates the potential for adjacent properties to be developed in a manner that would screen sunlight access to the proposed PV modules or be affected by noise from the transformers and batteries. For the northern, eastern, and southern site boundaries, this is further mitigated by the additional separation from adjacent properties by the width of the roads along the boundaries (State Highway 2, Cornwall Road, and Hughes Line, respectively). Further it is considered that the regular washing of panels will ensure that it is not affected by dust that may be generated by adjoining activities.
172. Overall, in my opinion, the proposed agrivoltaic development will not generate reverse sensitivity effects.

### **Cultural and Heritage Effects**

173. There are no sites of cultural significance identified on the Site as noted in the District Plan. Further there are no historic heritage or archaeological site located on the Site or in the surrounding area. Prior to lodgement, there were a number of discussions with iwi, and information regarding the proposal has been shared with representatives from iwi. No comments indicating that there is any concern regarding this proposal have been received from iwi.
174. Overall, I determine that there will be no heritage effects and cultural effects will be no more than minor and therefore acceptable.

### **Decommissioning of the solar farm**

175. The applicant proposes to decommission the solar farm at the end of its 40 year lifespan, and return the land to primary production. Soil testing is proposed to ensure the Site is not contaminated by the agrivoltaic developments (recognising the historic contamination) and the land

can be used for growing crops and grazing animals. The applicant also proposes to dispose of solar farm components and infrastructure in a way that maximises reuse and recycling. For any parts that cannot be reused or recycled, the applicant will seek to ensure that they are disposed of in an environmentally responsible way in accordance with industry best practices.

176. It is noted that there may be elements of the development that Transpower wishes to take responsibility for, and therefore, removal of those elements may not be possible.
177. However, I note that the application does not appear to have fully addressed potential adverse effects arising from the decommissioning of the Site, such as the generation of traffic and noise and the undertaking of earthworks. I therefore recommend that the matters proposed to be addressed by the Decommissioning Management Plan should be expanded to include the management of associated effects relating to these matters. If this is accepted, in my opinion, the decommissioning of the solar farm and associated infrastructure (as required) can be undertaken in a manner that will enable it to be used for primary production and without generating adverse effects on the environment.

### **Cumulative Effects**

178. As per the direction in Mr Robinson's legal opinion, I have addressed the cumulative effects of the Proposal and other consented solar farms in the surrounding area.
179. The site between the Site and the River to the northeast at 51, 99 and 107 Cornwall Road is subject to a consent that enables the establishment of a 25-hectare solar farm comprising 25,000 to 35,000 panels (Masterton solar farm). The consent to establish a large solar farm to the south of the Site at 510 Hughes Line, 271 Perrys Road & 303 East Taratahi Road is currently under appeal (Harmony solar farm). A solar farm has also been granted consent at 331 Norfolk Road (Light Years Solar). As such, I consider it necessary to consider cumulative effects, in particular on rural character and the openness anticipated by both the Operative and Proposed Wairarapa Combined District Plans.
180. Unfortunately, due to the timing of the application being lodged and the decisions being issued on the Masterton solar farm and the Harmony solar farm, neither the applicant's LVEA nor the Council commissioned review have addressed cumulative effects. I have also not considered the potential cumulative effects arising from the Light Years Solar farm given its distance from the subject Site: approximately 3.4km to the northwest.
181. In my planning opinion, if all these solar farms are constructed with consequent landscape planting, the rural character of the area will be altered, with an overall loss of openness. That said, the intent of the rural objectives and policies is to achieve a sense of openness across the entire Rural Zone. These proposals, being clustered together, will in effect

contain that loss to a small area of the rural zone, that is located in proximity to industrial activities and Masterton, thus retaining a sense of openness within the remaining rural area. Furthermore, their proximity to the Masterton Substation limits the need for new lines and associated works, which can also impact on rural character and amenity values.

182. Therefore, whilst resulting in a cumulative effect (the loss of openness and a change to the rural character), I consider this to be preferable to scattering such activities across the Rural Zone. I note this clustering of activities and loss of openness due to shelterbelts/screen planting has similarities to other areas of Wairarapa where orchards or horticulture crops are the predominant land use, such as immediately west of Greytown and sections of Norfolk Road west of Waingawa.
183. I have addressed the need to consider cumulative effect on bats in the section on Long tailed bats/pekapeka above.

### **Positive Effects**

184. The proposal will provide a renewable energy source, assisting New Zealand with achieving its climate change emissions targets under national legislation and under relevant international agreements. This will include generating enough electricity to supply approximately 35,000 homes per year and saving approximately 130,000 tonnes of CO<sub>2</sub> per year through providing electricity from a renewable source as opposed to fossil fuels. I note that Mr Telford made a submission in support of the proposal for similar reasons.
185. The proposal will provide employment opportunities for the local community during the construction phase, as well as, to a lesser scale, during the operational phase of the project.
186. The proposal will enable productive use of much of the land, through pastoral grazing of sheep or other primary production, which in turn will provide additional positive economic outcomes for the landowner and contribute towards the viability of the local rural economy.
187. The inclusion of the BESS component of the proposal will support the disconnect between peak renewable energy generation with peak demand on the electricity network.

### **Conclusion of Assessment of Effects**

188. The proposal will have a more than minor effect on landscape character during construction, and on 3920 State Highway 2 on an ongoing basis in terms of visual amenity effects from upper storey windows (noting that the property owner chose not to be heard). There is also a lack of certainty regarding effects on long-tailed bats, although this can likely be managed by way of robust conditions of consent and a Bat Management Plan. All other effects: traffic, noise, effects on rural

character, contaminated land, clearance of vegetation, loss of Herpetofauna and bird habitat and reverse sensitivity can be appropriately managed and mitigation measures applied as required.

## **S104 CONSIDERATION OF APPLICATION**

### **s104(1)**

189. In accordance with Section 104(1) of the Resource Management Act 1991 ('RMA'), I have assessed the proposal against the provisions of the national policy statements, national environment standards, and other regulations that are relevant to this application pursuant to Section 104B of the RMA.
190. In my opinion, there are no other relevant and reasonably necessary matters, in addition to those addressed above, required to determine the application.
191. With regard to Part 2, the proposal has been assessed against all relevant planning instruments and is consistent with / not contrary to those instruments. In my opinion, those instruments are not considered to be invalid, incomplete, or uncertain, and in turn can be assumed to have particularised and already given effect to Part 2 of the Act, therefore the Activity is also consistent with Part 2.

### **s104(2)**

192. There is no relevant permitted baseline given the small scale of buildings that can be constructed as a permitted activity for non-primary production or residential purposes (25m<sup>2</sup>) and for energy generation facilities (10m<sup>2</sup>). Furthermore, there is no permitted baseline for a solar farm which always requires resource consent as a Discretionary Activity.

### **s104 (6) and (7)**

193. A consent authority may decline an application for a resource consent on the grounds that it has inadequate information to determine the application. In making an assessment on the adequacy of the information, the consent authority must have regard to whether any request made of the applicant for further information or reports resulted in further information or any report being available.
194. Consideration has been given to the matters set out under this section of the Act and nothing has been identified which would result in Council refusing this application or granting it subject to conditions in accordance with this section of the Act; noting that the lack of certainty regarding effects on long-tailed bats, can likely be managed by way of a Bat Management Plan. I also note that the Applicant was never requested to provide definitive information on the presence of bats as part of the s92 request for further information.

**s104B Determination of applications for discretionary or non-complying activities**

195. I have considered the application pursuant to section 104, including any actual and potential effects on the environment of allowing the activity, and the relevant provisions of the Regional Policy Statement and District Plan(s), and the adequacy of information provided. In my opinion, the proposed activity can be granted resource consent subject to conditions.

**CONDITIONS**

196. I advise that I have read the Harmony Energy Solar Farm conditions imposed by the expert consenting panel appointed under the COVID-19 Recovery (FastTrack Consenting) Act 2020. I have taken a similar approach, whilst recognising the adverse effects arising from, and the recommended management measures proposed for, this particular solar farm. In that regard, I have taken and modified the conditions of consent proffered by the applicant including the augier conditions that seek to manage glint and glare effects. The recommended consent conditions are set out in Appendix 1.

197. I also note that for matters addressed by both Carterton District Council and Greater Wellington Regional Council such as contaminated land and earthworks, care has been taken to avoid duplication of, or contrary, conditions.

**Prepared by:**

**Date:** 28<sup>th</sup> November 2024



Claire Kelly  
Independent Planning Consultant  
Planner/Senior Principal at Boffa Miskell

**Reviewed by:**

**Date:** 28<sup>th</sup> November 2024



Hamish Wesney  
Planner/Partner at Boffa Miskell

## APPENDIX 1: RECOMMENDED CONSENT CONDITIONS



### RESOURCE MANAGEMENT ACT 1991

#### DECISION OF THE CARTERTON DISTRICT COUNCIL ON A RESOURCE CONSENT APPLICATION

<b>Application No:</b>	240005
<b>Consent Type:</b>	Land Use
<b>Applicant:</b>	Masterton Solar and Energy Storage Ltd.
<b>Site Address:</b>	3954A State Highway 2 CARTERTON
<b>Legal Description:</b>	Lot 2 DP 2099, Pt Lot 3 DP 2099, Pt Lot 1 DP 46533, Lot 1 DP 19148, Pt Lot 4 DP 2099, Lot 1 DP 17189, Lot 1 DP 3447, Pt Lot 4 DP 2099.
<b>Proposal:</b>	100-megawatt renewable energy project. The establishment and disestablishment of an agrivoltaics development (solar farm with primary production) including solar panels, inverters, transformers, battery energy storage system, a substation, a site office and connection to the nearby Masterton Substation.
<b>Decision Date:</b>	XX December 2024.
<b>Lapse Date:</b>	XX December 2029.
<b>Term of the Consent:</b>	40 years (XX December 2064).

#### Definitions and Abbreviations

Agrivoltaic	Means the dual use of land for solar energy production and agriculture.
BESS	Means Battery Energy Storage System.
BMP	Means Bat Management Plan.
CDC	Means Carterton District Council.

CMP	Means Construction Management Plan.
CNMP	Means Construction Noise Management Plan.
Construction	Means the building and removal of the solar farm including trenching and laying of cables.
CTMP	Means Construction Traffic Management Plan.
CDC	Means Carterton District Council.
DCMP	Means Decommissioning Management Plan.
DMP	Means Dust Management Plan.
FEMP	Fire and Emergency Management Plan.
GGAMP	Means Glint and Glare Management Plan.
GWRC	Means Greater Wellington Regional Council.
LIZMP	Means Lizard Management Plan.
LMP	Means Landscape Management Plan.
Operational Date	Means the date on which the inverters and/or transformers and/or battery energy storage system are switched on and commence operating.
OSMP	Means Operational Site Management Plan.
Site	Means Pt Lot 2 DP 2099, Pt Lot 3 DP 2099, Pt Lot 1 DP 46533, Lot 1 DP 19148, Pt Lot 4 DP 2099, Lot 1 DP 17189, Lot 1 DP 3447, Pt Lot 4 DP 2099.
SQEP	Means a Suitably Qualified and Experienced Practitioner.
Term of the Consent	Means the time within which, pre-construction works commence including the preparation of management plans, and the solar farm is constructed, operating and deconstructed.
WAPCMP	Means Weed and Animal Pest Control Management Plan.

## General Conditions

1. Except as modified by consent conditions, the agrivoltaic development approved by this decision must be carried out in accordance with the plans and all information submitted with the application lodged on 1<sup>st</sup> March 2024, and the further information submitted to Council on 17<sup>th</sup> April 2024. Where there is any conflict between these documents and the conditions, the conditions of consent prevail.

The plans include as follows:

- Site Plan MST-004 Rev 4, dated 17 April 2024;
- Cable Route MST-002 Rev 4, dated 17 April 2024;
- BESS & Switchyard Layout MST-003 Rev 4, dated 17 April 2024;
- Water Tank MST-101 Rev 1, dated 15 April 2024;
- Inverter + MV Transformer MST-102 Rev 1, dated 15 April 2024;
- Welfare Building / Office MST-103 Rev 1, dated 15 April 2024;
- MV Switchgear building MST-104 Rev 1, dated 16 April 2024;
- MV Switchgear building MST-105 Rev 1, dated 17 April 2024;
- BESS MST-106 Rev 1, dated 15 April 2024;
- HV Transformer MST-107 Rev 1, dated 15 April 2024;
- Substation MST-108 Rev 1, dated 15 April 2024;
- Substation MST-109 Rev 1, dated 15 April 2024;
- Substation MST-110 Rev 1, dated 15 April 2024;
- Tracker Configuration MST-111 Rev 1, dated 15 April 2024.

## **Lapse**

2. The consent lapses five years after the date on which it commences unless given effect to before that date.

## **Review of Conditions**

3. Carterton District Council (CDC) may review any or all conditions of this consent by giving notice of its intention to do so pursuant to section 128 and 129 of the Resource Management Act 1991, within one month of each anniversary of the commencement of this consent for any of the following reasons:
  - a) for the purposes of responding to any adverse effect on the environment which may arise from the exercise of the consent and which it is most appropriate to deal with at a later stage. These effects include, but are not limited to, those that may arise in relation to:
    - i. dust management during construction;
    - ii. noise and traffic during construction;
    - iii. operational noise;
    - iv. glint and glare;
    - v. landscaping;
    - vi. operational traffic effects and parking;
    - vii. ecological effects; and
    - viii. cultural effects.
  - b) For the purpose of ensuring that the conditions are effective and appropriate in managing the effects of the activities authorised by these consents.
  - c) For the purpose of reviewing the adequacy of and the necessity for monitoring undertaken by the Consent Holder.
  - d) If necessary and appropriate, for the purpose of requiring the Consent Holder to adopt the best practicable option to address adverse effects on the environment.



- e) If the results of a bat monitoring report provided under Condition 26 indicate that a more than low level of effects on bats is detected and measures to address this have not been added into the Bat Management Plan required by Condition 29.

## **Complaints**

4. Prior to commencing works on the Site, the Consent Holder must install signage that can be read at a distance of 5 metres, on the Site boundary which identifies the Consent Holder and the name, phone number and email address of the Site Manager who can be contacted 7 days a week in the event of an emergency or complaint.
5. The Consent Holder must maintain a register of any complaints received regarding the activities authorised by this resource consent. As a minimum, the register must include:
  - a) The name and contact details (if supplied) of the complainant.
  - b) The nature and details of the complaint.
  - c) The location, date and time of the complaint and the alleged event giving rise to the complaint.
  - d) The weather conditions and wind direction at the time of the complaint, where relevant to the complaint.
  - e) Other activities in the area, unrelated to the Project, that may have contributed to the complaint.
  - f) The outcome of the Consent Holder's investigation into the complaint; and
  - g) A description of any measures taken to respond to the complaint.
6. The register of complaints must be maintained on site and CDC must be notified of any complaint received that relates to the activities authorised by this resource consent as soon as reasonably practicable and no longer than two working days after receiving the complaint.
7. The Consent Holder must respond to any complainant in writing as soon as reasonably practicable and, within five working days of receiving the complaint, advise CDC and the complainant of the outcome of the Consent Holder's investigation and all measures taken, or proposed to be taken, to respond to the complaint. The Consent Holder must undertake those measures within 40 working days of receiving the complaint.

## **Management Plan Conditions**

8. The Consent Holder must prepare the following Management Plans for certification by CDC as specified in Table 1 below. The Consent Holder must prepare the Management Plans in accordance with the

requirements of the relevant conditions.

9. The Consent Holder must ensure the Management Plans:
  - a) Provide the overarching principles, methodologies and procedures for managing the effects of the project to achieve the environmental outcomes and performance standards required by these conditions.
  - b) Are maintained and implemented by the Consent Holder in accordance with the conditions of consent and timeframes in Table 1.
  
10. All Management Plans must be prepared by a suitably qualified and experienced person (SQEP).

**Table 1: Management Plans**

<b>Management Plan</b>	<b>Condition Reference</b>	<b>Documents to Council for Certification- Minimum Timeframe</b>
Bat Monitoring Plan	19	30 working days prior to the commencement of the pre works bat survey.
Bat Monitoring Report	26	Once every year for 5 years, commencing from the first year that the solar farm is operational, and every five years after that.
Bat Management Plan (BMP)	28	40 working days prior to construction commencing.
Lizard Management Plan (LIZMP)	31	20 working days prior to construction commencing.
Landscape Management Plan (LMP)	35	20 working days prior to construction commencing.
Construction Management Plan (CMP)	38	20 working days prior to construction commencing.
Construction Noise Management Plan (CNMP)	39	20 working days prior to construction commencing.
Construction Traffic Management Plan (CTMP)	40	20 working days prior to construction commencing.
Dust Management Plan (DMP)	41	20 working days prior to construction commencing.
Fire and Emergency Management Plan (FEMP)	42	20 working days prior to construction commencing.

Operational Site Management Plan (OSMP)	69	30 working days prior to the site becoming operational
Weed and Animal Pest Control Management Plan (WAPCMP)	70	30 working days prior to the site becoming operational
Glint and Glare Adaptive Management Plan (GGAMP)	74	30 working days prior to site becoming operational
Decommissioning Management Plan (DCMP)	86	Five years prior to decommissioning

### **Management Plan Certification**

11. The Consent Holder must submit the above Management Plans to CDC in accordance with the timeframe specified in Table 1.
12. If CDC refuses to certify the Management Plan, the Consent Holder must submit a revised management plan for certification as soon as practicable.
13. Construction must not commence until all plans identified in Table 1 which are required to be submitted prior to construction have been certified by CDC.
14. The certification process must be limited to confirming that the Management Plan has been prepared in accordance with the relevant condition(s) and will achieve the objectives of the resource consent condition which sets out the requirement for the management plan.

### **Amendments to Management Plans**

15. The Consent Holder may make amendments to a certified Management Plan before the relevant works (or relevant portion of works) are undertaken, subject to the certification of Council prior to an amendment taking effect. Any such amendment must be consistent with the objectives, performance requirements and technical requirements of the Management Plan and relevant consent conditions. The existing certified plan will continue to apply until a revised plan has been certified.
16. If the Council's response is that they are not able to certify the proposed amendments, the Consent Holder must consider any reasons and recommendations of Council and resubmit an amended Management Plan for certification.

### **Implementation/Compliance**

17. The Consent Holder must implement and comply with the certified management plans at all times.
18. All personnel involved with the construction of the project must be

made aware of, and have access to, all conditions and Management Plans applicable to the construction of the project, including any amendments to the management plans. Copies of these documents must be kept on site at all times.

## **Monitoring and Management of Bats conditions**

### **Bat Monitoring**

19. A Bat Monitoring Plan must be prepared by a SQEP and provided to CDC for certification in accordance with the timeframe in Table 1. The objective of the Bat Monitoring Plan is to determine if any bats roost or use the Site as habitat, manage any adverse impacts on bats and monitor any detectable change in habitat use on the Site once the solar arrays have been installed. This is to be achieved through both a pre-construction bat survey and post-construction monitoring, requiring actions at different stages of the proposal. The results from the monitoring will inform the Bat Management Plan required under Condition 28.

The Bat Monitoring Plan must include the following:

- a) A pre-works bat survey, as described in Condition 20.
- b) Bat monitoring during the operation of the solar farm, as described in Condition 25.
- c) An incidental discovery protocol, as described in Condition 26.
- d) Details of monitoring methods.
- e) Details of the frequency of monitoring.
- f) Identification of what measures will be used to determine if there has been any detectable changes in habitat use by bats.

20. The pre-works bat survey required by Condition 19 must be completed by a SQEP in the period commencing 1 October and finishing 31 April in the year prior to construction commencing, with the objective of determining the nature and extent of long-tailed bat activity at the Site including the following:

- a) Collection of baseline data including bat numbers, through placement of ABM sites across habitat types including open space area, shelter planting, trees, streams, and edge habitats.
- b) Identification of matters to inform the preparation of the Bat Management Plan required by Condition 29, including:
  - i. potential foraging habitat and potential bat flyways within the Site;
  - ii. trees with potential bat roost characteristics within vegetation that may be subject to clearance on site;
  - iii. trees with potential bat roost characteristics within vegetation on site that will be retained which may require construction and lighting controls;
  - iv. how bats use the Site in conjunction with surrounding land; and
  - v. any other matters which will require management.

21. The results of the pre works bat survey must be provided to CDC and the Department of Conservation.
22. The results of the pre works bat survey results must be utilised as part of the preparation of the Bat Management Plan set out in Condition 28 and must form a baseline for future monitoring during the operational period under Condition 24.
23. Prior to submitting the Bat Monitoring Plan to CDC for certification, the consent holder must:
  - a) Forward to the appropriate Department of Conservation District Office a draft copy of the Bat Monitoring Plan requesting their comments in writing within 30 working days;
  - b) Provide the Department of Conservation with an opportunity to meet and discuss their comments. The consent holder must provide at least 15 working days' notice to the Department of Conservation of a date and time to meet.
  - c) Consider modifying the Bat Monitoring Plan in relation to any comments raised by the Department of Conservation.
  - d) Comments received from the Department of Conservation should be included in the Bat Monitoring Plan provided to CDC for certification. Where the consent holder determines that some or part of any comments provided by the Department of Conservation should not result in a modification to the Bat Monitoring Plan, commentary justifying this decision must be provided to CDC when submitting the Bat Monitoring Plan for certification.
24. Bat monitoring during the operational period of the solar farm required by Condition 19 must be undertaken by a SQEP and must:
  - a) Include a control site.
  - b) Include at a minimum, monitoring for a two week period, every year for a five (5) year period following construction and then once every five (5) years after that, during:
    - i. November-December (pre-parturition), and
    - ii January-February (post-Parturition), and
    - iii. March-April (mating season).
25. The Incidental Discovery Protocol required by Condition 19 must be implemented for the life of the Project and must specify:
  - a) A programme of inspections to identify dead or injured bats at a frequency agreed with CDC.
  - b) That if dead or injured bats are discovered, the species and number must be:
    - i. recorded, along with date, time, location and information on injuries;
    - ii. reported to the Department of Conservation, and immediately transported to a veterinarian (approved by the Department of Conservation) experienced in indigenous wildlife rehabilitation. Where possible, the location, photographs and cause of injury/death is to be reported to the Department of Conservation.

- c) That information on any bat strikes must be kept by the Consent Holder should they be required to be inspected by CDC or the Department of Conservation.

26. Within one month of concluding each monitoring period during the operation of the solar farm (i.e. once every year for 5 years, commencing from the first year that the solar farm is operational, and every five years after that) a SQEP must, on behalf of the Consent Holder, submit to CDC a Bat Monitoring Report setting out:

- a) The results of the monitoring.
- b) Data collected as a result of the implementation of the Incidental Discovery Protocol relating to bats described in Condition 25.
- c) If the SQEP identifies that the solar farm results in a detectable change in habitat use that result in a more than low level of adverse effects on bats, recommendations for additional mitigation measures and monitoring required.
- d) If recommendations for additional mitigation measures and monitoring are made in accordance with clause (c) above, the Consent Holder must within 30 working days amend the Bat Management Plan required under Condition 28 and the Bat Monitoring Plan required under Condition 19 as appropriate to give effect to those recommendations, using the amendment process as set out in Conditions 15 and 16.

27. The Bat Monitoring Report must also be provided to the Department of Conservation.

### **Bat Management Plan**

28. Following completion of the pre-works bat survey under Condition 19 and in accordance with the timeframes in Table 1, a Bat Management Plan (BMP) must be prepared by a SQEP and submitted to CDC for certification. The purpose of the BMP is to outline management actions to be implemented to avoid, minimise or mitigate the risk of disturbance and injury/mortality of long-tailed bats during construction and operation of the solar farm.

29. The BMP must:

- a) Set out the credentials of the bat ecologist undertaking bat management.
- b) Be informed by the pre-works bat survey required by Condition 19.
- c) Identify and locate any trees with potential bat roost characteristics that are proposed for clearance.
- d) Include methodologies to guide bat management prior to and during vegetation clearance in accordance with the most recent version of the Bat Roost Protocols prepared by the Department of Conservation's Bat Recovery Group.
- e) Provide details of the setbacks for key noise generating activities associated with the ongoing operation of the solar farm from confirmed bat roosting habitat.
- f) Provide details of how impacts from the construction activities

will avoid, minimise or mitigate the risk of disturbance and injury/mortality of long-tailed bats including to implement:

- i. Restrictions on enabling works or construction works between 0.5 hours before sunset and 0.5 hours after sunrise, including within 50m of any tree identified as having potential bat roost characteristics;
  - ii. Restrictions on artificial lighting at night associated with enabling works or construction works and if needed for security reasons, provision for motion sensor controlled lighting that is directed away from any tree identified as having potential bat roost characteristics.
- g) Provide measures to minimise any potential impacts on maternity roosts during the months of November to January inclusive including restrictions on piling works occurring within 50m of any tree identified as having potential bat roost characteristics during the pre-commencement survey.
- h) Provide measures to avoid, minimise or mitigate impacts of the risk of disturbance and injury/mortality of long-tailed bats from the ongoing operation of the solar farm (including, lighting controls, boundary planting and other methods).
- i) If (h) cannot be achieved:
- i. outline measures to enhance bat habitat within and at the boundary of the site including any snags/spars to be retained within boundary planting; and
  - ii. Provide details of any offsite activities undertaken to compensate for any loss of bat roosting, feeding and commuting habitat.
- j) The certified Bat Monitoring Plan required by Condition 19 and all Bat Monitoring Reports prepared under Condition 26 must be attached to the Bat Management Plan as appendices.

30. Prior to submitting the BMP for certification in accordance with Condition 29, the Consent Holder must:

- a) Forward to the appropriate Department of Conservation District Office a draft copy of the BMP requesting their comments in writing within 30 working days;
- b) Provide the Department of Conservation with an opportunity to meet and discuss their comments. The consent holder must provide at least 15 working days' notice to the Department of Conservation of a date and time to meet.
- c) Consider modifying the BMP in relation to any comments raised by the Department of Conservation.
- d) Comments received from the Department of Conservation should be included in the BMP provided to CDC for certification. Where the consent holder determines that some or part of any comments provided by the Department of Conservation should not result in a modification to the Bat Management Plan, Management Plan for certification.

#### *Advice Note*

*The Consent Holder must obtain authorisations under the Wildlife Act 1953 or under subsequent legislation as required by the Department of Conservation to handle and/or relocate any long-tailed bats. Any*

*Wildlife Act Permits must be provided to CDC for reference.*

## **Pre-Construction conditions**

### **Lizard Management Plan**

31. In accordance with the timeframe set out in Table 1, a Lizard Management Plan (LIZMP) must be prepared prior to works that pose injury / mortality risks to indigenous lizards (construction works) and provided to CDC for certification. The purpose of the LIZMP is to outline appropriate measures that, when effectively implemented, will avoid identified risks to lizards.
32. A LIZMP prepared in accordance with Condition 31 must include the following:
  - a) identification of areas of potentially suitable lizard habitat and which must be excluded from the placement of access tracks, solar platform piles, and solar panels (to avoid excessive habitat shading or any habitat removal); and
  - b) identification of any lizard release areas; and
  - c) habitat enhancement and predator control measures to be undertaken in lizard release areas (wetland and setback areas).

#### *Advice Note*

*The Consent Holder must obtain authorisations under the Wildlife Act 1953 or under subsequent legislation as required by the Department of Conservation to handle any lizards. Any Wildlife Act Permits must be provided to CDC for reference.*

### **Bird Survey**

33. Where trees are to be cleared or trimmed, this must occur outside of the main bird breeding season (1 September – 28 February (inclusive)) to avoid any risk of impacts to nesting protected indigenous birds. The Consent Holder must also undertake the construction of solar farm outside of the main bird breeding season (1 September – 28 February), to avoid adverse effects to breeding indigenous birds.
34. As an alternative to Condition 33, a pre-construction including any tree trimming and clearance, bird survey of the Site must be carried out by a suitably qualified ecologist/ornithologist with over five years experience conducting bird surveys (SQEP), in order to:
  - a) Determine whether bird species observed during the survey are deemed to be of conservation concern by the (SQEP) and are breeding within the solar array footprint or any tree to be cleared or trimmed. Subsequently:
    - i. If breeding species are absent, works may proceed within the breeding season; or
    - ii. If breeding species are present within the site, works may proceed subject to setbacks from nests or other similar measures to avoid or otherwise manage impacts to breeding



birds, as advised by the SQEP.

## **Landscape Management Plan**

35. In accordance with the timeframe set out in Table 1, the Consent Holder must submit to CDC, for certification, a Landscape Management Plan (Landscape MP). The LMP must include mitigation planting to be undertaken in general accordance with the Mitigation Planting Plan prepared by Mansergh Graham Landscape Architects Ltd (ref. MAP No-04, revision 3, dated December 2023). The purpose of the LMP is to provide for the planting, management and, the maintenance of the existing and proposed vegetation around the boundaries of the Site, given its importance in mitigating adverse visual and glint and glare effects.

As a minimum the LMP must include the following:

- a) Identification of vegetation within the Site and along the site boundaries to be retained and protected or replaced in accordance with the Mitigation Planting Plan in Appendix 5 of the Landscape Assessment.
- b) Include measures to maintain and consolidate the existing or any replacement vegetation along the boundaries of the Site, including planting existing gaps, replacing trees and vegetation that die, are windblown or become diseased, to achieve dense and effective visual screening, with a minimum height of 2 metres.
- c) detail a planting and maintenance programme (staging, timing and species) to consolidate and maintain any of the shelterbelts/planting around the Site for the life of the solar farm.
- d) New mitigation screen planting must be established in the locations as identified in the Mitigation Planting Plan to provide screening of the development from the adjoining dwelling and properties, and must be:
  - i. Undertaken in a manner compliant with the Electricity (Hazards from Trees) Regulations 2003 or equivalent subsequent regulation; and
  - ii. Maintained to a height within the range of 2m minimum and 3m maximum.

36. All security fencing must be located internally within the Site and be screened by the mitigation planting. The security fencing must have a maximum height of 2.6m and the posts must not exceed 3.0m. Closed board fencing must be prohibited along the site boundaries.

37. Plant species planted within 10m of the water race must be only those in the list of acceptable trees and shrubs in the document titled Guidelines for Water Race Property Owners and is available on the Council's website. *Pinus radiata*, poplar and willow must not be planted within 10m of the water race.

## **Construction Management Plan**

38. In accordance with the timeframe set out in Table 1, the Consent Holder must submit to CDC for certification, a Construction Management Plan (CMP). The purpose of the CMP is to ensure that construction works are undertaken in manner that minimise adverse effects on the environment including adjoining properties and their occupants.

The CMP must include, as a minimum:

- a) Sequence of earthworks and progressive reinstatement / stabilisation of earthworks areas;
- b) Detail regarding specific sediment and erosion control measures in relation to sequencing of earthworks, including timing for installing / erecting sediment and erosion control measures;
- c) Confirmation that all site works and soil disturbance activities must maintain a minimum 3.0m width setback from the banks of the water race and include details on how this set back will be achieved;
- d) Monitoring and maintenance schedule for erosion and sediment control measures, including maintenance checks prior to (where practically appropriate) and after inclement weather; and
- e) Outline the weather condition trigger/s for implementing a watering schedule of internal roads and manoeuvring areas during dry and/or windy periods, and suspension of operations should the weather conditions become unfavourable.
- f) Reference to, or inclusion of the Construction Noise Management Plan required by Condition C12 to ensure compliance with the noise requirements outlined in Condition 49.
- g) Reference to, or inclusion of, the Construction Traffic Management Plan required by Condition 39.

## **Construction Noise Management Plan**

39. In accordance with the timeframe set out in Table 1, the Consent Holder must submit to CDC for certification, a Construction Noise Management Plan (CNMP) prepared by a SQEP. The objective of the CNMP is to identify and require the adoption of the Best Practicable Option for ensuring compliance with the relevant conditions of this consent and minimising any other unnecessary noise. The CNMP must manage construction noise generally and must be prepared with reference to Annex E, New Zealand Standard NZS6803:1999 Acoustics – Construction Noise. The Construction Noise Management Plan must include (but not be limited to), the following matters:

- a) The roles and responsibilities of the personnel in the contractor team for managing and monitoring noise levels and effects.

- b) Expected hours of construction (and any required limits on hours of construction).
- c) Construction machinery and equipment that will be used (and their operating noise levels).
- d) The timing and duration of specific construction activities over the total construction period.
- e) The location and proximity of neighbouring dwellings.
- f) Systems or procedures for receiving and resolving any community complaints about noise emissions, including noise monitoring, where appropriate.
- g) Induction and training procedures for construction personnel.
- h) Methods and measures to mitigate noise effects including, but not limited to, structural mitigation such as barriers, shrouds or enclosures, the scheduling of high noise construction, selection of low noise machinery, or temporary offers from the contractor to the adjacent dwelling occupants to reduce noise effects during periods of high noise.
- i) Use of maps to identify any areas of piling that are likely to exceed the consented construction noise limits without specific attenuation or management.
- j) Identification of suitable methods of noise attenuation or management that should be used to comply with the noise limits set out in Condition 44 when piling within these areas and/or any procedures that must be implemented prior to construction work beginning in these areas.

### **Construction Transport Management Plan**

40. In accordance with the timeframe set out in Table 1, the Consent Holder must submit to CDC, for certification, a Construction Traffic Management Plan (CTMP). The purpose of the CTMP is to detail how all conditions relating to heavy and light vehicle and movements and access will be achieved.

The CTMP must include, but is not limited to, the following matters:

- a) Roles, responsibilities and contact details, including for public enquires;
- b) Construction staging and proposed activities;
- c) Expected number of vehicle movements, particularly heavy vehicle numbers during each phase of construction;
- d) Management of construction traffic access in accordance with Conditions 49 to 53 including no access off State Highway 2;
- e) Measures to ensure that all construction workers, contractors and deliveries to the Site are aware of the requirement set out in (d) above and measures to ensure that this is monitored and enforced.
- f) Location of onsite parking and loading areas for deliveries;
- g) Measures to prevent, monitor and remedy tracking of debris onto public roads and dust onto sealed sections in

accordance with the Dust Management Plan required by Condition 41;

- h) Measures for regular communications with residents located on Hughes Line and Cornwall Road.
- i) The procedure for recording concerns/complaints regarding construction traffic.

### **Dust Management Plan**

41. In accordance with the timeframe set out in Table 1, the Consent Holder must submit to CDC, for certification, a Dust Management Plan (DMP). The purpose of the DMP is to minimise the generation of dust from earthworks, the movement of vehicles on and off the site and any other dust generating activity to ensure that any dust that is noxious, dangerous, offensive or objectionable, is avoided to the extent practicable and otherwise remedied or mitigated. The DMP must include measures to address dust effects on neighbouring dwellings.

### **Fire and Emergency Management Plan**

42. Prior to commencing construction, the Consent Holder must prepare a Fire and Emergency Management Plan (FEMP) in consultation with Fire and Emergency New Zealand. The purpose of the FEMP is to minimise the risk of fire within the Site and to adjoining properties, whilst also ensuring that the Site is equipped to control any fire or emergency that does happen.
43. The FEMP must include, but not be limited to:
- a) Details on emergency service access and emergency response procedures.
  - b) Confirmation of the provision and location of an onsite firefighting water supply.
  - c) Fire risk management measures and procedures.
44. The Consent Holder must provide the FEMP including evidence of sign off by Fire and Emergency New Zealand to CDC for information purposes.
45. The FEMP required to be prepared in accordance with Consent Condition 42 above must be reviewed every 5 years, or where there are site changes including equipment changes. A revised plan must be provided to Fire and Emergency New Zealand for sign-off and to CDC for information purposes.

### **Construction**

#### **Pre-start meeting**

46. At least ten working days prior to commencement of construction

- on site, the Consent Holder must provide to CDC, the following:
- a) The name and contact details of the successful contractor.
  - b) The planned date, staging and duration of construction.

47. The Consent Holder must hold a pre-start meeting that:
- a) Is located on the subject site;
  - b) Is scheduled not less than five working days prior to the commencement of activities;
  - c) Includes:
    - i. CDC Monitoring Officer, or delegated representatives;
    - ii. Representatives of the contractors who will undertake operations on site.

**Advice Note:**

*The purpose of the pre-start meeting required under Condition 46 is to ensure that all relevant parties are aware of and understand the requirements for compliance with the conditions of this consent, the certified management plans and relevant environmental legislation requirements.*

48. A copy of the final conditions of consent and certified pre-construction management plans must be made available by the Consent Holder at the pre-start meeting.

**Construction Noise Levels**

49. Construction noise levels at the façade of any occupied dwelling or building must comply with the following limits, when measured and assessed in accordance with NZS 6803:1999: Acoustics – Construction Noise:

Time Period	Maximum Noise Levels	
	L <sub>Aeq</sub> (15 min)	L <sub>AFMax</sub>
7.30am – 6.00pm, Monday to Saturday	70dB	85 dB
All other times and on Public Holidays	45 dB	70 dB

**Earthworks**

50. The Consent Holder must undertake earthworks in accordance with Conditions 4 and 14 to 25 of WAR240183 and certified by GWRC.
51. The Consent Holder must take all practicable steps to minimise sediment loading due to the works, by ensuring all stormwater and water discharged from the construction activities is directed to an erosion and sediment control measure or device prior to discharge.

**Accidental Discovery Protocols**

52. In the event that an unidentified archaeological site is located during works, the Consent Holder must ensure the following is undertaken:
- a) Works must cease immediately at that place and within 20m

- around the site.
- b) The contractor must shut down all machinery, secure the area and advise the Site Manager.
  - c) The Site Manager must secure the site and notify the Heritage New Zealand Archaeologist. Further assessment by an archaeologist may be required.
  - d) If the site is of Māori origin, the Site Manager must notify the Heritage New Zealand Archaeologist and Representatives Ngāti Kahungunu ki Wairarapa and Rangitāne o Wairarapa of the discovery and ensure site access to enable appropriate cultural procedures and tikanga to be undertaken, as long as all statutory requirements under legislation are met (Heritage New Zealand Pouhere Taonga Act 2014, Protected Objects Act 1975).
  - e) If human remains (kōiwi tangata) are uncovered, the Site Manager must advise the Heritage New Zealand Archaeologist, NZ Police and Representatives of Ngāti Kahungunu ki Wairarapa and Rangitāne o Wairarapa and the process under (a)-(b) must apply. Remains are not to be moved until such time as iwi and Heritage New Zealand have responded.
  - f) If it is not clear whether a bone is human, work must cease in the immediate vicinity until a specialist can be consulted and a definite identification made.
  - g) The site must be secured in a way that protects the koiwi as far as possible from further damage.
  - h) Works affecting the archaeological site and any human remains (kōiwi tangata) must not resume until Heritage New Zealand gives written approval for work to continue. Further assessment by an archaeologist may be required.
53. If taonga, including artefacts such as carvings, stone adzes, and greenstone objects are discovered, the Consent Holder must ensure the following protocols are complied with:
- a) The area containing the taonga will be secured in a way that protects the taonga as far as possible from further damage.
  - b) Consultation will be undertaken with Representatives of Ngāti Kahungunu ki Wairarapa and Rangitāne o Wairarapa, who will advise on appropriate tikanga and be given the opportunity to conduct any cultural ceremonies that are appropriate.
  - c) An archaeologist will examine the taonga and advise Heritage New Zealand Pouhere Taonga of the finding.
  - d) The actions in a), b) and c) will be carried out within an agreed stand down period and work may resume at the end of this period or when otherwise advised by Heritage New Zealand Pouhere Taonga.
  - e) The Archaeologist will notify the Ministry for Culture and Heritage of the find within 28 days as required under the Protected Objects Act 1975. This can be done through the Auckland War Memorial Museum.
  - f) The Ministry for Culture and Heritage, in consultation with the tangata whenua, will decide on custodianship of the taonga

(which may be a museum or the iwi whose claim to the artefact has been confirmed by the Māori Land Court). If the taonga requires conservation treatment (stabilisation), this can be carried out by the Department of Anthropology, University of Auckland (09-373-7999) and would be paid for by the Ministry. It would then be returned to the custodian or museum.

*Advice Note:*

*The above protocols in relation to archaeological discoveries do not apply when an archaeological authority issued under the Heritage New Zealand Pouhere Taonga Act 2014 is in place. An Archaeological Authority issued under the Heritage New Zealand Pouhere Taonga Act 2014 is a legal document and supersedes the discovery protocols.*

*These discovery protocols cannot override the legal conditions of an archaeological authority. In accordance with the Heritage New Zealand Pouhere Taonga Act 2014, where an archaeological site is present (or uncovered), an authority from Heritage New Zealand is required if the site is to be modified in any way.*

*It is an offence under s 87 of the Heritage New Zealand Pouhere Taonga Act 2014 to modify or destroy an archaeological site without an authority from Heritage New Zealand Pouhere Taonga irrespective of whether the works are permitted, or consent has been issued under the Resource Management Act 1991.*

## **Traffic and Vehicle Access**

54. Construction traffic entering and departing from Cornwall Road must be directed west towards State Highway 2 corridor to minimise impact on traffic loads on Hughes Line.
55. Construction traffic entering and departing from Hughes Line must be directed west towards State Highway 2 via Cornwall Road or via East Taratahi Road to minimise impact on traffic loads on Hughes Line (section south of East Taratahi Road).
56. Construction traffic must only be directed to use Hughes Line south of East Taratahi Road in emergency circumstances or if State Highway 2 is temporary closed.
57. The Consent Holder must not utilise either of the two vehicle crossings to or from State Highway 2 for any form of access during construction works or operation of the solar farm.
58. All of the proposed vehicle entranceways must be recessed such that any access gate is installed a minimum of 10m from the edge of the adjacent road seal (to allow vehicles to be parked safely clear of the carriageway).

## Services

59. At least one (1) month prior to a site office building being established on the site, the Consent Holder must provide to the CDC information on the nature of on-site staff and visitor amenities, and how water supply and wastewater will be managed.

### Advice Note

*It is accepted by the Consent Holder that there is a possibility that additional resource consent may be required regarding the provision of water supply and/or on-site wastewater management. All information required to obtain such consent/s, including obtaining relevant specialist reports, are the responsibility, and cost, of the Consent Holder.*

60. All infrastructure works must be designed, constructed, installed, and commissioned in accordance with the following.
- Carterton District Council's Land Development and Subdivision Infrastructure Guide. A copy of the latest revision can be found on the Council's website.
  - Wairarapa Combined District Plan 2011
  - New Zealand Standard NZS4404:2010 Land Development and Subdivision Infrastructure.
61. All investigation, calculations, design, construction supervision and certification of the infrastructure works under this consent must be carried out or under the control of persons defined in Section 1.7.1 of NZS4404:2010.
62. Construction of water race infrastructure and vehicle access must be undertaken by persons defined in Section 1.7.2 of NZS4404:2010.

## Water Races

63. Prior to any construction works commencing on the Site the Consent Holder must submit an application to CDC for the construction of new culvert pipelines or upgrade of existing pipelines over the water race channel.

### Advice Note:

*The application form titled; Carterton District Council Water Race Alteration Application can be found on the Council's website. A non-refundable administration fee will be calculated and payable at the time of such an application. The application must include all relevant design and construction documentation including drawings, specifications, and calculations.*

64. Where the proposed internal access roads obstruct the water race



channel and unless a specific design is certified by CDC, culvert pipes and end treatments must be sized appropriately for the catchment intercepted and must be the greater of

- the diameter of any existing culvert pipes; or
- (DN) 600mm nominal diameter.

*Advice Notes:*

- a. Specific designs for the proposed culvert must be based on Section 4.3.9 from NZS4404:2010 unless an alternative is approved by Carterton District Council. The culvert must be of suitable capacity and must integrate the control of stormwater peak flows as set out in Section 4 of NZS4404:2010. Additionally, the maximum consented flush flow through the Taratahi Water Race is 800L/s.*
- b. The determination of operating condition for the proposed culvert must be governed by the most restrictive of the two flow types, inlet control or outlet control. The headwater level must not cause surcharge at the inlet unless the embankment fill is part of a detention device or has been designed to act in surcharge.*
- c. Fish passage through culvert must always be maintained. The culvert outlet must ensure non-scouring velocities at the point of discharge and must not exceed 2m/s without specific provision for energy dissipation and velocity reduction.*

65. At least one (1) month prior to construction activities commencing on the Ste, the Consent holder must provide CDC detailed design drawings for certification for managing the potential conflict between the development and the piped water race that transects the southeastern corner of the development area. Construction activities must not commence until the Council has provided certification of the detailed design drawings.

66. The positioning of the solar panels and associated tracking tables piles must provide space for Council staff and Contractors to access the piped water race for maintenance purposes without resulting in damage to the adjacent panels. The detailed design drawings to be provided to Council for certification must clearly indicate the minimum clear width and length over the pipe that can be practically achieved.

67. In the event of an alteration to the alignment of the piped water race, the Consent Holder must submit an application to CDC The application form titled: Carterton District Council Water Race Alteration Application can be found on the Council's website. A non-refundable administration fee will be calculated and payable at the time of such an application.

### **Contamination Conditions**

68. The Consent Holder must manage contaminated land in accordance with Conditions 5 to 6 of Regional Council Consent:

*Advice Note*

*It is noted that the findings of the DSI may require additional resource consent/s from either the District Council and/or the Regional Council associated with the remediation of the affected area in order to avoid adverse effects of existing contaminants in the soil on human health. The responsibility, including all associated costs, of obtaining of any such resource consent/s, including any specialist reporting and the Consent Authority processing fees, must be born wholly by the Consent Holder.*

**Post Construction and Operational Conditions**

**Operational Site Management Plan**

69. In accordance with the timeframe set out in Table 1, the Consent Holder must submit to CDC for certification, an Operational Site Management Plan (OSMP). The purpose of the OSMP is to ensure the solar farm and educational/community/iwi visits are operated in a manner that avoids, mitigates or remedies adverse effects on the environment. This should include, but not be limited to:

- a) Measures for scheduled maintenance and off-site monitoring of equipment.
- b) Measures to ensure that broken or faulty panels and equipment are removed from the Site as soon as reasonably practicable.
- c) Measures to ensure discarded panels are appropriately disposed of off-site. The number of panels replaced, and the disposal method must be recorded.
- d) Measure for arranging and recording educational/community/iwi visits to the Site.
- e) Measures for controlling traffic, including parking and manoeuvring, in relation to educational/community/iwi visits to the Site.
- f) Reference to, or inclusion of, the ongoing maintenance requirements set out in the certified LMP and Weed and Animal Pest Control Management Plan.

**Weed and Animal Pest Control Management Plan.**

70. In accordance with the timeframe set out in Table 1 the Consent Holder must submit to CDC for certification, a Weed and Animal Pest Control Management Plan (WAPCMP). The purpose of the WAPCMP is to control all existing and maintain a low density of or eliminate pest plants and animal species within the Site to enhance indigenous biodiversity. The WAPCMP must achieve the following performance targets:

- a) Gorse, Broom and Blackberry must be retained at no more

- than 5% of total vegetation coverage within the Site.
- b) Rats across the Site must be controlled to at or below a 5% Rat Tracking Index every year for ten years; and
  - c) Mustelids across the Site must be controlled to at a low detection level every year for ten years; and
  - d) Mice must be controlled to at or below 10% Mouse Tracking Index at any lizard release site (if lizard relocation is undertaken), every year for ten years.

And include (but not be limited to):

- a) Requirements, including methods and timing, of weed control.
- b) Ongoing maintenance of weeds and plant pests.
- c) Methods and timing of animal pest control, including methods for recording catch.
- d) Ongoing control of animal pests and recording of catch data.
- e) Parameters to measure the control of weeds and control of pest animals.
- f) Requirements for regular and ongoing maintenance and monitoring.

71. Weed and animal pest control must be implemented in accordance with the guidelines and timeframes set out in the certified WAPCMP for the duration of the resource consent.
72. The Consent Holder must, on an annual basis, for 10 years, commencing from the Operational Date, provide a report prepared by a SQEP to CDC setting out:
- a) Catch data records; and
  - b) Maintenance works undertaken to control weeds and pests; and
  - c) Reporting against the parameters used to measure the control of weeds and control of pest animals; and
  - d) The success or otherwise of any weed and pest control; and
  - e) Works to be undertaken during the next year.
73. If recommendations for additional mitigation measures and monitoring are made in accordance with clause e) above, the Consent Holder must within 30 working days amend the WAPCMP required under Condition 70 as appropriate to give effect to those recommendations, using the amendment process as set out in Conditions 15 and 16.

### **Glint and Glare Adaptive Management Plan**

74. In accordance with the timeframe set out in Table 1, the Consent Holder must submit to CDC for certification, a Glint and Glare Adaptive Management Plan (GGAMP). The purpose of the GGAMP is to ensure that unanticipated glint and glare effects arising post construction of the solar farm do not impinge on the operation of Hood Aerodrome, and on the safe and efficient operation of

adjoining roads.

As a minimum the GGAMP must include the following:

- a) the contact details for the Consent Holder and their agent responsible for addressing glint and glare complaints, ensuring that persons affected by glint and glare have a direct line of communication for reporting issues.
- b) procedures for reporting and addressing glint and glare issues by affected parties. This includes:
  - i. The information required when lodging a complaint.
  - ii. The timeline within which the Consent Holder must acknowledge receipt of the complaint.
  - iii. A detailed timeline for the investigation and response process, ensuring that any substantiated glare issues reported are addressed promptly and effectively within a specified timeframe, not exceeding 30 days from receiving the complaint.
  - iv. detailing a range of possible mitigation solutions to address reported glint and glare issues.
- c) a monitoring regime to assess the effectiveness of the mitigation measures implemented to address reported glint and glare issues. This includes feedback from affected parties on the resolution of reported glare issues.

#### *Advice Note*

*A substantiated adverse glint and glare effect is one which has been reported and a technical assessment has confirmed the effect has occurred, has an adverse effect on Hood Aerodrome, and/or on the safe and efficient operation of adjoining roads, and will likely continue to occur.*

75. The GGAMP must be implemented for whichever is the greater duration of the following:

- a) A period of three years following the date on which construction of the solar farm commences; or
- b) For a year following any remedial action undertaken in accordance with Consent Condition 74(b) above.
- c) During this period, the Consent Holder is obligated to respond to and manage glint and glare complaints as per the procedures outlined in the GGAMP.

76. The Consent Holder must submit an Annual Report to the Consent Authority if requested, summarising the glint and glare complaints received, actions taken, and the effectiveness of the mitigation measures implemented. The Annual Report may also recommend whether ongoing management of glint and glare issues is required along with any relevant supporting information.

### **Glint and Glare Mitigation**

77. Glare along Cornwall Road, Hughes Line and State Highway 2 or on aircraft must be mitigated by an area of no backtracking in the south-eastern portion of the Site until the planting establishes to a

minimum height of 3.0m. The Consent Holder must submit a map to CDC confirming the extent of this area and any required mitigation planting with dimensions for consent monitoring and administration, prior to the solar farm commencing operation for certification.

## Noise Limits

78. The noise (rating) level from the operation of the solar farm must comply with the following noise limits when measured and assessed at any notional boundary:

<b>Time Period</b>	<b>Maximum Noise Levels</b>
Daytime, 7.00am – 7.00pm	55 dBA L <sub>10</sub>
Nighttime, 7.00pm – 7.00am	45 dBA L <sub>10</sub>
Nighttime, 9.00pm – 7.00am	75 dBA L <sub>Max</sub>

All sound levels must be measured in accordance with NZS 6801:1999 “Acoustics – Measurement of Environmental Sound” and assessed in accordance with NZS 6802:1991 “Assessment of Environmental Sound”.

79. Within six weeks of the solar array becoming operational, a suitably qualified and experienced acoustic consultant must perform measurements to confirm compliance with both the daytime and night-time noise limits contained in Condition 78 above. The assessment must include an objective analysis of any special audible characteristics during the day and at night in accordance with Appendix B4 of NZS 6802:2008 Acoustics - Environmental Noise.
80. Within 2 weeks of undertaking the acoustic measurements required under Condition 79, the Consent Holder must prepare and provide a report to Carterton District Council. The report must set out the results of the monitoring and any mitigation measures to address any non-compliance with the noise standards in Condition 78. The mitigation measures must be certified by the Council prior to implementation.
81. The mitigation measures must be installed within 2 weeks of being certified by CDC.
82. Further measurements must be undertaken by a SQEP once the mitigation measures have been installed to confirm compliance with both the daytime and night-time noise limits contained in Condition 78 above. The results of these measurements must be provided to Carterton District Council.
83. The process set out in Conditions 79 to 82 must continue until such time as compliance with both the daytime and night-time noise limits contained in Condition 78 above have been achieved.

## **Monitoring bird strike**

84. The Consent Holder must undertake monitoring for bird strike to include:
- a) a record of information about any bird species found dead at the Site that appear to have suffered trauma injuries, including species, number, and suspected cause of death. Input from an SQEP or veterinarian may be required.
  - b) Provide this information on an annual basis, to Carterton District Council and / or the Department of Conservation, in order to increase the understanding of possible bird strike issues with solar arrays.

### *Advice Note*

*The Consent Holder may need to obtain authorisations under the Wildlife Act 1953 or under subsequent legislation as required by the Department of Conservation to handle injured indigenous birds or store dead indigenous birds. Any Wildlife Act Permits must be provided to CDC for reference.*

## **Cleaning of the panels**

85. Solar farm infrastructure within the site (including, but not limited to: panels; inverters; transformers and switchgear) must only be cleaned with water or a biodegradable cleaner.

## **Decommissioning of Development**

86. In accordance with the timeframe set out in Table 1, the Consent Holder must submit to CDC for certification, a Decommissioning Management Plan (DCMP). The purpose of the DCMP is to manage the adverse effects associated with deconstructing the solar farm.

The following matters regarding decommissioning of the development must be outlined:

- a) The methodology for removal of all structures and associated infrastructure administered by the Consent Holder;
- b) Any measures to avoid, remedy or mitigate adverse effects associated with the generation of traffic and the undertaking of earthworks;
- c) Any measures to ensure that the Construction Noise levels in Condition 50 are met;
- d) The intended disposal location for all structures and associated infrastructure to be removed from the Site;
- e) The methodology for reinstatement of the Site to its predevelopment standard that will enable it to be used for primary production;
- f) The soil testing strategy to be implemented with regards to the confirmation that, as a result of decommissioning the development, the Site is suitable to return to full productive agricultural use;

g) A completion report must be provided to the CDC no more than six (6) months following completion of the decommissioning of the development. The completion report must confirm compliance with the requirements of Condition 86 as well as the Decommissioning Management Plan, as well as the findings of the testing required under Condition 86(d) above were, and what, if any, remedial actions were subsequently undertaken.

87. Prior to the end of the forty (40) year consent duration, as outlined above in Condition 86, the Consent Holder must remediate the Site in accordance with the DCMP, including removing all structures, as well as any associated infrastructure administered by the Consent Holder, including (but not limited to) PV modules, tracking table posts and mechanisms, BESS units, substation (only that located within the subject site), switchyard station building, and site office building. Where relevant, all associated electrical cables must either be removed or decommissioned in accordance with electricity transmission industry best practice and standards.

#### *Advice Note*

*Any structures, equipment or cables owned by or transferred to Transpower's ownership are not subject to Conditions 86 and 87.*

#### **RECOMMENDED ADVICE NOTES**

1. The Site is located in an area that is not serviced with a reticulated drinking water supply and wastewater disposal by Carterton District Council. Wastewater disposal is to be dealt with on-site by the owner.
2. The Consent Holder may require a building consent for the installation of new stormwater and wastewater infrastructure within the property boundaries. Grant of a resource consent for the proposed activity does not imply approval for construction of new wastewater infrastructure.
3. That costs, pursuant to Section 36 of the Resource Management Act 1991, be paid by the applicant.
4. The Consent Holder must take all practicable steps to minimise sediment loading due to the works, by ensuring all stormwater and water discharged from the construction activities is directed to an erosion and sediment control measure or device prior to discharge.
5. For the purposes of assessing existing culvert capacities, it has been noted that the method of estimating flows in the Taratahi water race assumes passage of 800L/s at the head based on Waingawa river flow exceeding 3.5m<sup>3</sup>/s. The applicant must note that 800L/s flow rate is a consent limit for instantaneous flow through the water race and may not represent actual flow through the water race at its head. The flow intake from the Waingawa river into the Taratahi

water race is undertaken in a controlled manner and is adjusted to suit demand and weather conditions (to avoid flooding).

6. The earthworks associated with the proposed activity must not alter the configuration of an existing overland flow path i.e., the works must maintain the same route of the overland flow path, maintain the same entry, and exit point at the site boundary, and not alter the volume and velocity of water flow. Earth and other material stockpiles must not be stored within an existing overland flow path.
7. The Consent Holder may consider applying for the abstraction of water from the Taratahi water race for the purposes of firefighting. The water from the water race can be used to store water in the proposed storage tanks. To initiate the request for a new water abstraction point from the Taratahi water race, the consent holder can submit an application using the relevant form(s) from the Council's website. The consent holder must comply with the terms and conditions imposed by Council at the time of such an application.
8. Notwithstanding acceptance of the resource consent application and subsequent engineering designs by Carterton District Council, the consent holder remains responsible for reviewing the proposed activity against other regional plans, policies and rules provided by Greater Wellington Regional Council. Acceptance of any design or resource consent granted by Carterton District Council does not transfer any responsibility to Carterton District Council or provide any assurance that the activity complies with other Regional plans, policies, and rules.
9. Any new or proposed vehicle crossing access from the State Highway 2 corridor, the consent holder must seek approval from Waka Kotahi New Zealand Transport Agency prior to construction.
10. Prior to commencing any work and activities in the road corridor on Cornwall Road and Hughes Line, the consent holder must obtain a Work Access Permit (WAP) from the Council's Corridor Manager through submission of a complete Corridor Access Request (CAR).
11. Prior to any work commencing on the Site the consent holder must submit an application to Carterton District Council for planting any trees and shrubs within 10m of a water race. Permission to plant trees and shrubs must only apply to the species outlined in the application.

The application form titled; Carterton District Council Water Race Alteration Application can be found on the Council's website. A non-refundable administration fee will be calculated and payable at the time of such an application.

12. The Consent Holder must apply for a new vehicle crossing from Cornwall Road and Hughes Line that meets the requirements in Appendix 5 of the Wairarapa.



An application form can be found on the Council's website using the link below.

<https://cdc.govt.nz/document/vehicle-crossing-application-form>