

NORTHLAND REGIONAL COUNCIL

HEARING COMMITTEE AGENDA MERIDIAN ENERGY LIMITED APP.045356.01.01

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SUBMISSIONS

Copies of all submissions have been provided to the Hearing Committee under separate cover.

NOTE: *All pre-circulated material, including the agenda and written submissions, is taken as read at the hearing.*

Report to Hearings Commissioner(s) on Resource Consent Application to Northland Regional Council

Executive summary

Meridian Energy Limited have made application to Northland Regional Council for bulk earthworks, drainage, vegetation clearance and works within wetlands across three separate properties at Ruakaka. The purpose of the works is to provide for the establishment, operation and maintenance of a solar energy farm, including solar panels, inverters and related electrical infrastructure, and ancillary activities such as transmission lines, control buildings and substations.

The application requires consideration under the Regional Plan for Northland – Operative in Part 2023 and the National Environmental Standard for Freshwater 2020 as a non-complying activity.

The application was subject to public notification for the period 22 March 2024 – 23 April 2024. A total of eleven (11) submissions were received within the submission period, with one late submission being received and subsequently formally accepted under Section 37. The majority of submissions received raise issues that fall within the jurisdiction of the Northland Regional Council and are generally focused on the potential adverse effects on wetlands on part of the proposal site.

This planning report assesses the extent of potential adverse and positive effects that may arise from the proposal and considers the relevant planning provisions contained in various national and regional planning documents. Careful consideration has been given in particular to the National Policy Statement on Freshwater and National Environmental Standard for Freshwater (NES-F) which are the predominant documents the application is required to be assessed against.

Based on the suite of technical reports and evidence provided, the recommendation on the application lodged with the Northland Regional Council is that it be declined, on the basis that the application cannot satisfy the requirement of Regulation 45(6) of the NES-F. That recommendation is based on the potential adverse effects arising on ecological values which may result from the proposal associated with the loss of wetlands on part of the site that cannot be appropriately offset.

Despite the finding under the NES-F, this report includes further consideration of the relevant provisions of the RPS and RPN. This is provided on the basis that further information addressing the matters raised in this report is invited from the applicant to address the stated concerns prior to and/or at the hearing. Should the additional information satisfy the NES-F, the RPS and RPN provisions are then engaged in considering any decision contrary to that recommended in this report.

Statement of reporting planner qualifications and experience

Alister Hartstone – Reporting Planner

I am a director of Set Consulting Limited, a company established in early 2016 that provides planning consultancy services to both local government and private clients. I currently undertake work for private clients across the upper North Island and Hawkes Bay, and district and regional councils. I hold a Bachelor of Regional and Environmental Planning with Honours from Massey University. I am a Full Member of the New Zealand Planning Institute and an accredited Hearings Commissioner.

I have over 30 years experience in planning and planning-related matters, having previously worked in local government across Manawatu and Northland, commencing in 1995. I have managed a multi-disciplinary team overseeing the processing of all planning-related applications, as well as being involved in development and review of plan changes, presenting evidence at Environment Court hearings, development contribution policy development and implementation, and strategic projects across the council and communities. In addition, I have been involved in several national working groups run by Local Government New Zealand and Ministry for the Environment.

I confirm that I am familiar with the subject site and undertook a site visit on the 4th October 2023. I confirm that the evidence on planning matters that I present is within my area of expertise and I am not aware of any material facts which might alter or detract from the opinions I express. I have read and agree to comply with the Code of Conduct for Expert Witnesses as set out in the Environment Court’s Practice Note 2023. The opinions expressed in this evidence, are based on my qualifications and experience, and are within my area of expertise. If I rely on the evidence or opinions of another, my evidence will acknowledge that.



Alister Hartstone

**Consultant Planner for Northland Regional
Council**

12 July 2024

Date

This report was peer reviewed by the following signatory:



Stuart Savill

Consents Manager

Northland Regional Council

12 July 2024

Date

Abbreviations used in this report

NRC	Northland Regional Council
WDC	Whangarei District Council
RMA	Resource Management Act 1991
RPS	Operative Regional Policy Statement for Northland
RPN	Regional Plan for Northland – Operative in Part 2023
WDP	Whangarei District Plan Operative in Part 2022
NTA	Northland Transport Alliance
NZCPS	New Zealand Coastal Policy Statement 2010
NPS-REG	National Policy Statement on Renewable Electricity Generation 2011
NPS-HPL	National Policy Statement on Highly Productive Land 2022
NPS-ET	National Policy Statement on Electricity Transmission 2008
NPS-FW	National Policy Statement for Freshwater Management 2020
NES-F	National Environment Standard for Freshwater 2020
CEA	Cultural Effects Assessment
CEL	Critical Electricity Line
NZTA	New Zealand Transport Agency
FENZ	Fire and Emergency New Zealand
EIA	Economic Impact Assessment
MEL	Meridian Energy Limited
BESS	Battery Energy Storage System

Report appendices

- (a) NRC Internal Technical Advice – Rural Design Limited regarding ecological effects
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Section 42A Hearing Report

Application details

Council Reference:	Northland Regional Council APP.045356.01.01
Reporting Planner:	A Hartstone, Consultant Planner (Set Consulting Ltd)
Applicant:	Meridian Energy Limited
Activity Summary:	<p>Establish, operate, and maintain a solar energy farm with an approximate project size of 200ha across three sites, requiring consent for the following activities:</p> <ul style="list-style-type: none">• Non-complying activity consent pursuant to Rule C.2.2.6 of the Proposed Regional Plan for Northland to undertake earthworks within significant wetlands.• Discretionary activity consent pursuant to Rule C.2.2.4 of the Proposed Regional Plan for Northland to undertake earthworks within natural wetlands.• Discretionary activity consent pursuant to Rule C.8.3.4 of the Proposed Regional Plan for Northland to undertake earthworks within an identified high risk flood hazard area.• Discretionary activity consent pursuant to Rule C.8.3.4 of the Proposed Regional Plan for Northland to undertake earthworks within ten (10) metres of a natural wetland and river.• Controlled activity consent pursuant to Rule C.8.3.2 of the Proposed Regional Plan for Northland to undertake earthworks exceeding 5000 square metres of exposed earth at any time as part of the project.• Discretionary activity consent pursuant to Rule C.8.4.3 of the Proposed Regional Plan for Northland to undertake vegetation clearance exceeding 200m² in area and within 10 metres of a natural wetland and river.• Discretionary activity consent under Regulation 45 of the National Environmental Standard for Freshwater 2020 for earthworks and land disturbance within natural wetlands associated with specified infrastructure.

NB. The application includes a request for consent for the construction and use of a bore for water supply. This activity was withdrawn from the application subsequent to lodgement and prior to public notification.

Location:

'Site 1' - SH15/Rama Road/Marsden Point Road, being Lots 1 – 3 DP 419151 and Lots 1 – 3 DP 59354

'Site 2' - SH15/McCathie Road, being Lot 1 DP 386730, Lot 1 DP 348043 and Lot 2 DP 325771, Lot 2 DP 348043, and Section 13 SO 32254

'Site 3' - McCathie Road/Marsden Point Road, being Lot 1 DP 406479, Pt Lot 1 DP 36288, Pt Section 1 Blk VII Ruakaka SD, Pt Section 11 Blk VII Ruakaka SD, Pt Section 54 and Sections 55 – 57 and 60 Blk VII Ruakaka SD

Adequacy of information

1. The application was formally received by the Northland Regional Council (NRC) on the 8 September 2023. The application was reviewed with a Section 92 request issued for additional information on the 3 October 2023. It is noted that NRC has used external consultants to review the earthworks in the flood hazard area and ecological effects associated with the application. The Section 92 request and subsequent responses addressed queries associated with applications for the proposal to both the Whangārei District Council (WDC) and NRC.
2. The three items raised by NRC in the Section 92 request related to information identified as required following a review of the ecological and flood hazard information and a query regarding consent sought for a water bore. The applicant responded that they would not seek consent for the water bore. The outstanding matters associated with the earthworks within the identified flood hazard were resolved by way of a meeting between experts and final advice received from Reyburn and Bryant Limited dated 15 November 2023.
3. The initial concerns raised regarding the ecological assessment and more particularly the wetland delineation and offsetting assessment were responded to in full in a consolidated response provided under cover of letter from Reyburn and Bryant Limited dated 17 November 2023. There have been three meetings between ecology experts for NRC and the Applicant held on 9 November 2023, 30 January 2024, and 23 February 2024. Supplementary information addressing functional need and ecological matters was provided under cover of letter from Reyburn and Bryant Limited dated 11 March 2024.
4. Following the close of public notification, a site meeting between experts with NRC staff in attendance took place on the 9 May 2024. No further ecological information has been provided resulting from that site meeting that is relevant to the Section 92 request. The technical advice provided from Rural Design Limited attached to this report summarises the adequacy of information as it relates to ecology. Setting aside differences of expert opinion, it is considered that there is sufficient information to reasonably consider the extent of actual and potential effects.
5. Consideration has been given to the matters raised in the submissions received. There are no matters that have been raised that have not been adequately covered in the information provided. No new matters have been identified in submissions that require additional information from the applicant in order to be suitably considered. The additional information provided following the close of notification has not resulted in any material changes to the proposal that would warrant reconsideration of the decision to publicly notify the applications.

6. In summary, it is considered that the information provided with the application allows for consideration of the following matters on an informed basis:
- The nature and scope of the proposed activities that consent is being sought for;
 - The extent and scale of the actual and potential effects on the environment;
 - Those persons and/or customary rights holders who may be adversely affected; and
 - The requirements of the relevant legislation and Regional and District Plan provisions.
7. On this basis, it is considered that the application is supported by adequate information to determine the application in accordance with Section 104(6). The proposal has not changed or been revised in any material form or scale during the processing of the consent application such that re-notification is required.

Report format and methodology

8. This report has been prepared under instructions from NRC as a Section 42A report to assess the application as lodged, additional information received, the submissions received, and the relevant planning framework under the RMA. The report is being presented to assist independent Hearing Commissioners appointed by NRC who have delegation to hear and determine the application.
9. For the purpose of this report, reference to ‘the application’ should be read as the application prepared by Reyburn and Bryant Limited dated September 2023 as lodged with the NRC inclusive of all appendices. Where information is being referred to in the report that is not part of the application, this will be identified as such.
10. As detailed above, the information provided with the application covers all relevant matters associated with the proposed activities. Technical assessments are provided within the application and comments have been provided from experts addressing particular technical matters where required. Therefore, this report has been written in a manner to avoid any undue repetition or descriptions where suitable reference can be made to information in the application as provided for under Section 42A(1A) of the RMA.
11. Where there is agreement on any particular matter, including any technical assessment, this is identified in the report. Where there are any points of disagreement or difference of opinion, these are identified and the relevant points of difference of approach, assessment, or conclusions detailed.

12. Assessment of the proposed activities requires reference to a number of sections of the RMA and provisions in various planning documents. Unless considered necessary, reference will be made to the section and/or planning provision without a copy of that section or provision being included in the report in full.
13. All parties should be aware that a consent has been issued by WDC for the establishment of the proposed solar farm across Sites 1 – 3. A copy of that consent is attached to this report for information purposes only.

The proposal and background

14. The application considered in this report was lodged by Meridian Energy Limited on the 8 September 2023. With the exception of the withdrawal of consent for the water bore, the scope and nature of the proposal has not changed since the date of lodgement.
15. Plans are provided in Appendices 4 and 6 of the application and detail the general proposed layout, the site works required, the table structures which will hold the solar panels, and the location of access and ancillary structures across Sites 1 – 3.
16. Section 4 of the application sets out a detailed description of the proposal, read in conjunction with the plans referenced above. Very briefly, the application provides for preparatory site works that provide for the construction of 200,000 solar panels with a footprint of 172ha across the three sites. The works include bulk earthworks and drainage (including culverts), formation of internal access tracks, landscape planting and screening, security fencing, and formation of a new wetland area. The solar farm will consist of the panel structures utilising either fixed panel or single axis tilt panels. Inverters will be located adjacent to internal accessways throughout the solar farm layout. A satellite control room will be constructed on Site 3, with existing buildings on Site 3 used as an operation and maintenance centre. A number of existing structures and buildings across the three sites will be removed to accommodate the solar farm.
17. The extent of earthworks required across the three sites is 1,906,400m² in area¹ with the intention to retain a neutral cut to fill ratio across the three sites. Appendix 4 includes an 'Indicative Earthwork Cut and Fill Plan' and indicative long sections for each of the three sites. A significant portion of Sites 1 and 3 subject to proposed earthworks are identified as being within River and Coastal Flood Hazard Zones as defined by NRC², while Site 2 is subject to only small isolated areas of identified flood hazards. The extent of these flood hazard areas as they affect the sites is illustrated in Figures 17 – 19 of the application.

¹ Consisting of 937,600m² on Site 1, 415,500m² on Site 2, and 553,400m² on Site 3.

² See NRC website - 'NRC LocalMaps - Natural Hazards'.

18. A significant component of the application is removal of an area of wetland on Site 1 to provide for area for solar panels. The loss of this area is intended to be offset by improvements to wetland to be retained on Site 1, and construction of a large indigenous wetland on Site 3.
19. The application does not appear to seek a consent period or lapse date beyond the defaults specified in Section 123 and 125.
20. Section 2 of the application provides an evaluation of alternatives, with an Alternatives and Optimisation assessment provided in Appendix 3 of the application. It is noted that this details application of an effects management hierarchy as required under the NPS-FM. Consideration of the application of the effects management hierarchy is addressed further in this report.
21. For completeness, a Battery Energy Storage System ('BESS') has been consented on the corner of State Highway 15 and Rama Road (part of 'Site 1') by WDC and NRC. The proposed solar farm will be connected to the BESS via a 33kV overhead connection located within road reserve. Power generated by the proposed solar farm is intended to be introduced to the main grid from the BESS.

Reasons for consent and activity status

22. Section 1.5 of the application and Table 2 therein summarises the relevant planning provisions and reasons for consent from NRC. That assessment is generally accepted and adopted for the purpose of this report. The consents sought under the RPN address bulk earthworks exceeding the permitted standard and being undertaken within a flood hazard area across Sites 1 - 3, and earthworks and vegetation clearance within and adjacent to wetlands on Site 1. The overall activity status of consents required under the RPN is assessed as a non-complying.
23. Consent is sought under Regulation 45 of the NES-F for the construction of specified infrastructure. The application seeks consent for '*...earthworks and land disturbance within natural wetlands...*'. The applicant has since clarified that consent is sought under Regulations 45(1), 45(2), and 45(3). Regulations 45(4) and 45(5) are not engaged by the proposal. These activities require consideration as a discretionary activity.
24. It is considered appropriate in this case to 'bundle' the various activities together as they are inter-related in terms of the proposal. While the activities are intended to be carried out across three separate sites (as defined by records of title), this is not considered to be an impediment to the bundling approach, particularly where the offsetting of wetland loss is intended be addressed across sites 1 and 3.

25. For completeness, it is noted that the RPN was declared part Operative on 13 October 2023, after the application had been lodged. No matters have been identified in the application, such as a change to any relevant rule, as a result of the RPN being declared part Operative.

Site and surrounds description

26. Section 3 of the application provides a detailed description of the site and surrounding locality. Having undertaken a site visit on the 4th October 2023 and travelled past the site on various occasions since then, it is considered that the description provided in the application can be accepted and adopted for the purpose of this report.

Notification and submissions

27. Public notification commenced on the 22 March 2024 and closed on the 23 April 2024. Eleven (11) submissions were received within the submission period, with one late submission received from Northland Fish and Game Council and subsequently accepted pursuant to Section 37 of the RMA. Of the twelve submissions received, ten oppose the application and two support the application.
28. Submissions received generally raise issues that fall within scope of the NRC application as it relates to potential ecological and flood hazard effects. However, several submissions raise matters that are considered to fall outside the scope of the application. The submissions received from Zachary Woods, John and Melodie O'Donnell, Ross and Norma Scobie, and Libby and Francis Williams raise concerns associated with visual effects, landscaping / screen planting, noise and vibration, and traffic safety. These matters are outside the jurisdiction of the NRC and fall to be considered by the WDC. A consent has been granted by WDC for the proposed solar farm across Sites 1 - 3, a copy of which is attached to this report. All of those identified concerns appear to have been assessed in granting the consent. This report therefore does not address these matters further.
29. One matter raised in a submission by Shaun Erickson relates to a 'heat island effect' that may be generated by the proposal. This is considered to be a novel but potentially relevant effect linked to ecology. Mr Erickson has indicated a wish to speak at the hearing so he is invited to provide further information regarding this potential effect. Similarly, the applicant may wish to address this matter prior to or at the hearing.

Statutory provisions

30. The application requires consideration under the provisions of Section 104 of the RMA to determine whether consent can be granted. Section 104(1) of the RMA requires that, subject to Part 2 of the Act, regard should be had to the following matters:
- (a) *any actual and potential effects on the environment of allowing the activity; and*
 - (ab) *any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and*
 - (b) *any relevant provisions of-*
 - i. *a national environmental standard;*
 - ii. *other regulations;*
 - iii. *a national policy statement;*
 - iv. *a New Zealand coastal policy statement;*
 - v. *a regional policy statement or proposed regional policy statement;*
 - vi. *a plan or proposed plan; and*
 - (c) *any other matter the consent authority considers relevant and reasonably necessary to determine the application.*
31. In this case, regard is required to be had to all of the sub-clauses (a), (ab), (b) and (c) set out above in considering the application.
32. The application is assessed as a non-complying activity. Therefore, Section 104D(1) applies, which sets out a 'gateway' test which states (as it relates to this application) that;
- '... a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either—
- (a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or
 - (b) the application is for an activity that will not be contrary to the objectives and policies of—
 - (i) the relevant plan, if there is a plan but no proposed plan in respect of the activity; or....'.
33. The application only needs to pass one of the two 'gateway' tests in order to allow consideration as to whether consent can be granted. If it passes neither of the 'gateway' tests, consent cannot be granted. Should the 'gateway' test be passed, regard can then be had to those matters under Section 104 to determine a final decision.

34. While the application is considered as a bundle of activities adopting a non-complying status, Regulation 45(6) of the NES-F requires three prerequisites to be met in order to grant consent to (in this case) the application sought as a discretionary activity under the NES-F. That matter is addressed further in this report under the Section 104(1)(b) assessment.
35. The remainder of this report addresses the matters under Section 104 and 104D of the RMA. Consideration of conditions that may be imposed to avoid, remedy, or mitigate potential adverse effects under Sections 108, 108AA, and 108A as part of any grant of consent is addressed as part of the assessment.
36. For completeness, it is considered that the application does not engage any matters identified under Sections 104(2A) – (2E) or 104(3)(c) or (d).

Section 104(1)(A) - Actual & potential effects on the environment

Trade Competition

37. With regard to Section 104(3)(a)(i), there are no known issues in the consent application or as a result of the submission process that raise questions of trade competition or the effects of trade competition.

Written Approvals

38. With regard to Section 104(3)(a)(ii), a consent authority must not have regard to the effects on those persons who have given written approval to an application. The application does not include any written approvals.

Receiving Environment and Permitted Baseline

39. When considering the effects of a proposal, consideration of the 'environment' that will 'receive' the effects of any proposal needs to be considered. In identifying the receiving environment, it is necessary to consider the environment as it is at the time of application, and the likelihood of change to that environment in the future, based upon the activities that could be carried out as of right or with respect to resource consents that have been granted (where it is likely that they will be given effect to).
40. There are three components that inform the receiving environment:
 - What lawfully exists in the environment at present;
 - Activities (being non-fanciful activities) which could be conducted as of right; i.e. without having to obtain resource consent ('permitted baseline'); and

- Activities which could be carried out under a granted, but as yet unexercised, resource consent.
41. The existing environment is well-described in the application and supporting documents. As described in 3.2.1 of the application, the BESS is currently being constructed inclusive of earthworks and is a relevant feature of the affected Site 1.
 42. In accordance with Section 104(2), the Council may disregard an adverse effect of an activity on the environment if the Plan or a National Environmental Standard permits an activity on the site with that effect (the 'permitted baseline' test). The baseline has been defined by case law as comprising non-fanciful (credible) activities that would be permitted on the application site as of right by the plan in question.
 43. The extent of any permitted activity under the RPN as it relates to earthworks outside any identified feature including flood hazards is '*5000m² of exposed earth at any time*'. This rule does allow for progressive or staged earthworks to be carried out where no more than 5000m² of earthworks is undertaken at any one time. Within a high-risk flood hazard area, the maximum permitted volume of earthworks is '*50m³ of moved or placed earth in any 12 month period*'. Given the scale of the proposal, any permitted activity is not considered credible to accommodate the type of activity sought where 1,906,400m² of earthworks will be undertaken across three sites, much of which is within a flood hazard area. In addition, there is no permitted status for works within, or within the vicinity of, wetlands under either the RPN or the NES-F.
 44. Overall, it is considered that there is no permitted baseline that readily assists in assessing the effects of the proposal.
 45. While there are no known consents that apply to potential activities on Sites 1 – 3, the following matters are relevant in considering the extent of the existing environment:
 - A consent was granted by both WDC and NRC for a solar farm on land adjacent to Site 1 in late 2019. That consent was granted to New Zealand Refining Company Limited to construct and operate a 26 MW photovoltaic (PV) solar farm on a 41.86ha site on the corner of SH15A, Rama Road, and Mair Road, Marsden Point. The NRC consent provided for bulk earthworks across the site. At the time of preparing this report, this consent has not been given effect to and it would appear unlikely that the consented activities will commence before the consents lapse. On this basis, this consented activity is not considered to form part of the existing environment.

- Land adjoining Site 3 to the north identified as part of 551 Marsden Point Road is subject to a subdivision consent granted by WDC in June 2022, with NRC consent granted for bulk earthworks and stormwater management in January 2022. Together, those consents provide for twenty two (22) light industrial allotments with public road and associated infrastructure on a portion of the site zoned Light Industrial in the Whangarei District Plan. One of the lots is intended to contain an existing consented sand mining operation, while the balance area is intended to be developed for light industrial purposes in accordance with the zoning. At the time of preparing this report, NRC staff have advised that the consent is considered to have been given effect to on the site. Therefore, this consented activity is considered to form part of the existing environment.

Assessment of effects

46. Section 5 of the application provides an assessment of environmental effects informed by technical reports forming part of the application. That assessment addresses effects associated with both the WDC and NRC applications. Those effects that are relevant to the NRC application are considered to be as follows:

- Cultural Effects.
- Ecological Effects.
- Flood Hazard effects – Earthworks.
- Construction effects – Earthworks.
- Positive Effects.

47. The following assessment addresses each of these matters in turn.

Cultural effects

48. Section 5.2 of the application addresses the extent of cultural effects associated with the proposed activities and relies on the provision of a CEA provided by Patuharakeke Te Iwi Trust Board dated 26 September 2023³, and a document entitled 'Te Parawhau Hapu Korero' dated 12 October 2022.

³ Noting that the applicant advised NRC at the time of lodgement that the CEA was 'pending'. A final version of the CEA was provided to NRC on the 29 September 2023.

49. During the notification period, a submission has been received from Patuharakeke Te Iwi Trust Board that generally supports the application and refers back to the CEA provided with the application. The CEA provides a comprehensive record of consultation with the applicant and identifies relevant provisions within the Patuharakeke Hapū Environmental Management Plan that provide context to identified cultural concerns and how they may be addressed. Section 5.2 of the CEA sets out specific cultural effects that may arise from the proposal, as well as identifying social and economic consideration for tāngata whenua. Section 6 sets out a recommendation with a list of provisos. The applicant appears to have accepted the recommendations contained in the CEA, stating under Section 5.2 of the AEE that *'It also contains a number of recommendations, the majority of which have been included as proposed conditions of consent.'*
50. A submission has been received from Dr Mere Kepa in opposition to the proposal although it is not clear whether that submission is made in her capacity as an individual or on behalf of Te Parawhau Hapu and Te Patuharakeke o Te Parawhau Hapu. It is noted Dr Kepa prepared the document entitled 'Te Parawhau Hapu Korero' provided as part of the application as lodged. The commentary in both the 'Te Parawhau Hapu Korero' and subsequent submission raise concerns regarding land confiscation by the Crown and the consequences of those actions for Te Parawhau. In addition, the 'Te Parawhau Hapu Korero' includes reference to provision of a healing garden *Mara Rongoa o Te Parawhau Hapu*. The applicant has acknowledged this request and refers to provision of the garden being accommodated as part of the detailed design phase for the wetland on Site 3.
51. It is noted that the WDC consent includes a condition requiring a landscape planting and management plan to be subject to input from hapu, and records that *'This condition has been offered by the consent holder in order to address relevant matters raised in response received from Patuharakeke Te Iwi Trust Board and Te Parawhau.'*
52. While acknowledging that the underlying land, being part of the historical Poupouwhenua Block, is subject to claims and a history of alienation, the documentation provided is not read as directly opposing the proposal. The applicant is responding to the cultural concerns raised and provided for the recommendations made in the CEA and Te Parawhau Hapu Korero, and this is considered sufficient in this case to suitably address any cultural concerns. On that basis, any cultural effects arising from the proposal are considered to be minor subject to implementation of the recommendations made in the consultation documents.

Ecological effects

53. The activity seeks consent for earthworks and vegetation clearance under Regulation 45(1) – (3) of the NES-F as well as consent under the RPN for earthworks and vegetation clearance within 10 metres of a wetland, and works within significant wetlands. The extent of the earthworks and vegetation clearance, both within and adjacent to existing areas of natural wetland, are the key focus for consideration of ecological effects associated with the proposal. The extent of potential effects is contained almost entirely within Site 1, which contains kanuka forest and shrubland and dune slack wetlands of various characteristics. The Ecology report states that ‘...*there is no indigenous ecosystems remaining on these sites*’ (being Sites 2 and 3).
54. The application is supported by a significant amount of ecological information addressing the current ecological values (both terrestrial and aquatic) and the extent of adverse effects on those values. The Ecological Effects Assessment prepared by Boffa Miskell Limited dated 28 August 2023 provided at Appendix 13 to the application as lodged (‘the Ecology report’) summarises the extent of ecological effects of the proposal (inclusive of a number of avoidance and mitigation measures) as:
- Low to Very Low effects in terms of the ecological effects on terrestrial vegetation values.
 - Positive effects on wetland and avifauna ecological values in the short to medium term.
 - Very Low effects on freshwater values.
 - Very Low to Low effects on bird, lizard, fish and bat ecological values, with the potential for positive effects in the short to medium term, particularly for lizards and birds.
55. The Ecology report includes the following conclusion:
- ‘Overall, by effectively implementing the outlined avoidance and mitigation strategies the level of ecological effects of the proposed Ruakākā solar park development on terrestrial values is expected to be Low to Very Low, on wetland values is likely to be Low and on freshwater values is likely to be Very Low, with an expected Net Gain in terrestrial vegetation, wetland, avifauna and herpetofauna values in the short to medium term (~ 3 - 5 years)⁴.

⁴ Executive Summary, Ecological Effects Assessment Prepared for Meridian Energy Limited, Boffa Miskell Limited

56. A notable feature of the proposal is the intended retention and improvement of approximately 2ha of open water wetland habitat which will increase the total wetland extent retained to approximately 9.1ha, with removal of approximately 17ha wetland habitat, all contained on Site 1. To offset the loss of wetland on Site 1, the applicant intends to construct an 11.73ha indigenous wetland area at the southern extent of Site 3 adjoining McCathie Road which is currently grazed pasture. Section 8.2 of the Ecology report sets out the extent of wetland loss, improvement, and offsetting in more detail.
57. The Ecology report has been reviewed by Rural Design Limited ('RDL') on behalf of NRC. The extent of the review, initial findings, discussions with the applicant, and outstanding points of disagreement are detailed in the attached statement from RDL and are not repeated in detail in this report for brevity. A Memorandum prepared by NRC entitled 'Ruakaka Solar Farms - Review of Assessment of likely groundwater levels report' dated 13 June 2024 is attached to this report, which informs some of the findings of the review.
58. It is noted that a majority of the submissions have raised concerns regarding the extent of ecological effects and have been considered and responded to briefly by RDL in the attached statement.
59. A key concern raised in the review by RDL is the manner in which BML has undertaken the delineation of wetlands on Site 1. RDL sets out these concerns which include surveys of different areas of wetland at different times during different climatic conditions, use of information to define wetlands areas without ground-truthing, and the timing of surveys in relation to ground water levels and 'non-normal' circumstances. Extensive discussions between BML and RDL since lodgement have not resolved these concerns. As a result, RDL states that *'RDL remains of the opinion that BML reporting has not accounted for the true wetland extent on site, and that the natural inland wetland extent on Site 1 is much greater (approximately 10 ha more) than that provided within the BML reporting and mapping. The wetland extent is crucial for aligning the subsequent ecological value/significance assessments, ecological effect evaluations, and mitigation proposals. Given that the Application strongly relies on offsetting to account for the proposed wetland loss, the required offset cannot be accurately assessed given that the true wetland loss on Site 1 is likely much greater than that shown in BML reporting.'*

60. While RDL considers that assessment of the proposed off-setting on Site 3 cannot be accurately assessed, RDL expresses the view that *'In my opinion, the proposal to remove over 17 ha of dune slack wetlands (please note the wetland extent/wetland loss on Site 1 is still in dispute between RDL and BML) through aquatic offset may be considered inappropriate altogether, given that the wetland habitat types identified on Site 1 are dune slack wetlands, which are rare and nationally threatened ecosystem types and are considered irreplaceable. These ecosystem types cannot be readily offset given that they rely on a range of complex ecological, geological, and hydrological conditions. Irreplaceability is a consideration both under RPS and NPS-FM.'*
61. In summary, RDL's position is that the proposal as presented is likely to generate more than minor and potentially significant adverse ecological effects on natural inland wetlands. In the absence of a more definitive assessment of the extent and values of the wetlands and potential offsetting, the position is that the potential adverse effects on the wetlands are such that the proposed activity should be avoided. This effectively means that no earthworks should occur within or directly adjacent to the existing wetlands on Site 1 where such works would adversely affect their function.

Flood hazard effects - earthworks

62. The bulk earthworks being undertaken across Sites 1 - 3 are located within areas identified as River Flood Hazard Zones ('RFHZ'). While proposed earthworks within Site 2 will only occupy a small area identified as RFHZ, those works are of sufficient scale to trigger consideration as part of the application.
63. The Ruakaka Flood Modelling Report prepared by Beca Limited dated 7 July 2023 provided at Appendix 7 to the application as lodged ('the Flood report') summarises the extent of potential effects of the earthworks on existing flood hazard levels as follows:

'Modelling demonstrated that the development will generally reduce maximum water levels on adjacent properties in the 50 year with climate change and 100 year with climate change events. Water levels will increase by about 1 mm upstream of Site 1; a difference that is within the margin of modelling error. Increases were also modelled within a drain alongside Mair Rd (downstream of Site 1); however this was contained within the drain. Velocity differences are likewise minor. The model shows that the proposed development will have a negligible effect on flooding.'

64. The inputs and use of the model informing the Flood report and the conclusions therein have been reviewed by Water Technology Limited ('WTL') for NRC. Further clarification regarding the modelling details, assumptions, and mitigation measures has been sought and provided. Notably, additional information has been provided under cover of letter from Reyburn and Bryant Limited dated 15 November 2023 following discussions between WTL and Beca Limited⁵. That letter records the offer of a flooding condition which requires the applicant to prepare and submit the results of a hydraulic model illustrating maximum specified flood level increases for 100 year, 5 year and 2 year ARI rainfall event. This condition proposes that the results of the model are to be submitted to NRC and approved (or certified) 40 days prior to construction commencement.
65. In addition, WTL have reiterated that a flood control bund as specified in the Flood report, to be constructed along the south-western side of the Rama Road on Site 1, is to be designed, constructed and maintained by the consent holder. That requirement will need to be include as a condition of any consent.
66. Submitters have raised concerns regarding the extent of the flood modelling and whether it represents the worst case scenario associated with climate change. The Flood report records the extent to which climate change events have been incorporated into the 50 and 100 year ARI, as well as being included in sea level rise as part of the model. No concerns have been raised regarding this approach by WTL in the review.
67. On that basis, the conclusion regarding the extent of adverse effects associated with earthworks in the identified flood hazards as stated in the Flood report by Beca below is adopted for the purpose of this report:

'The proposed development has a minimal, and generally positive, effect on flood levels for the following reasons:

- *Site 1: while earthworks make it easier for water to reach the central drain, the bund with outlet structures along the downstream (north-eastern) boundary attenuates flow such that downstream water levels do not exceed pre-development levels.*
- *Site 2: earthworks are a mixture of cut and fill, and do not substantially change flow paths or storage.*
- *Site 3: earthworks across the site are predominantly in cut, and particularly so for the wetland on the southern side. This means that there is there is more volume available for water to pond in during a flood. That is, the proposed development increases the available flood attenuation storage available.'*

⁵ The correspondence includes reference to Metis Consultants – Metis were engaged by WDC to review stormwater management requirements as part of the land use consent lodged with WDC.

68. Following receipt of the above advice, during cursory investigations regarding activities on surrounding sites, it was noted that NRC has previously granted consent for bulk earthworks on a property at 551 Marsden Point Road Ruakaka. This property adjoins Site 3 along its northern boundary. That consent provides for approximately 13 hectares of earthworks involving a constructed wetland and cut and fill earthworks, ultimately to provide for a subdivision and associated industrial / commercial land use activities. A copy of this consent and associated details has been provided to WTL to consider whether any cumulative effects may arise, where earthworks and changes to ground levels not anticipated to date may affect any conclusions and/or consent conditions reached regarding the proposal as it affects Site 3. This does not appear to have been considered or addressed as part of the Flood report provided with the application.
69. WTL have considered this matter and advised under cover of email dated 26 June 2024 that 'I had a look at the information provided and the HKRS applications suggest that floodplain volume displaced will be offset. I would infer from this, that any impact would be mitigated. Given the HKRS is located at the fringe of the flood extent, I would be comfortable concluding that any cumulative impact would not be significantly different than those shown in Beca's modelling report. Even with consideration of the cumulative impacts, it would be acceptable.'
70. On the basis of the information provided with the application and the supporting review carried out by WTL on behalf of NRC, it is considered that any adverse effects associated with earthworks affecting flood hazard levels will be less than minor. That conclusion relies on the implementation of conditions as identified by the applicant.

Construction effects - earthworks

71. The extent of bulk earthworks across Sites 1 – 3 exceeds the permitted standard of 5000m² of exposed earth at any time. The consideration of ecological effects associated with earthworks and associated vegetation clearance where they are in or adjoin wetlands has been addressed above. The remaining extent of potential adverse effects arising from the earthworks activities is associated with erosion and sediment control and potential dust nuisance arising from windblown material being discharged to air.
72. Section 4.18 of the application addresses earthworks, including provision of a draft Erosion and Sediment Control Plan. This is informed to some extent by Section 4.19 Construction Management, which offers the provision of a Construction Environmental Management Plan by way of conditions of consent as a means of identifying and implementing all necessary measures to avoid off-site effects associated with earthworks. This is a common approach to larger-scale earthworks projects and is considered an appropriate response to manage the potential adverse effects of earthworks across Sites 1 – 3.

73. Subject to suitable conditions of consent requiring a comprehensive Construction Environmental Management Plan, which will include a final Erosion and Sediment Control Plan, any adverse effects associated with bulk earthworks across Sites 1 – 3 will be suitably mitigated or avoided such that any adverse effects are minor.
74. For completeness, it is noted that conditions of the WDC consent require a Construction Management Plan to be prepared and implemented, and specific conditions require dust management across the sites.

Positive effects

75. Section 5.3 of the application summarises the positive effects arising from the proposal should consent be granted. More detail regarding the background to the proposal and the intended outcomes of the project are set out in Sections 1.1 and 1.2 of the application.
76. It is recognised that the development of renewable energy sources for electricity generation has gained significant impetus in New Zealand. International and national commitments at central government level are currently directed through the Climate Change Response (Zero Carbon) Amendment Act 2019 and, more recently, the adopted Emissions Reduction Plan. As summarized in Section 1.1 of the application, increased reliance on renewable energy from alternative sources such as solar farms is integral to achieving the outcomes sought. The application states:

'The principal benefits from the solar farm would be the production of around 150-200GWh of electricity generation (energy) per year and would be capable of providing over half of Northland's average annual energy consumption. Electricity is central to our day-to-day life and there are frequently no substitutes, yet its availability is often taken for granted. Reliable and cost-efficient access to electricity is fundamental to the ongoing progress of both New Zealand and its economy. Its supply is also critical to the ongoing operation of communication networks and other infrastructure, as well as the operation of banks, hospitals, schools, and other public and private institutions that service the ongoing social, economic, and cultural wellbeing and health and safety of people and communities.'

77. That statement is accepted and adopted for the purpose of this report. The positive effects associated with the establishment and operation of the proposed activity, resulting from activities that require consent from NRC if granted, are considered to be significant on a regional and potentially national basis.

78. Setting aside the capacity for increased renewable energy, the increased resilience of the energy infrastructure servicing Northland is considered to be a relevant and potentially significant positive effect. Recent events where electricity supply to Northland has been compromised or lost has caused significant adverse economic and social effects for the region. The application does not detail the extent to which the proposal would increase energy self-reliance within Northland. However, provision of large-scale renewable electricity generation within the Northland region would be expected to significantly reduce risks associated with compromised supply.
79. These positive effects are considered to weigh heavily in considering the overall extent of environmental effects.

Consent period and duration

80. The application is understood to be seeking the default consent period of five (5 years) in order to give effect to all consents sought as specified under Section 125 of the RMA.
81. With regard to the duration of consent, this is applicable to all components of the application as per Section 123(d) of the RMA. The application seeks the maximum term of 35 years duration for this consent.
82. Given the scale of the development, the consent lapse and duration periods sought are considered appropriate.

Conclusion regarding environmental effects

83. Careful consideration has been given to the environmental effects arising from the suite of activities that form the activities lodged with the NRC.
84. In summary, the potential adverse effects associated with the bulk earthworks across sites 2 and 3 are acceptable and will result in only minor adverse effects subject to suitable conditions as generally set out in the application.
85. In addressing the extent of adverse effects associated with removal of wetlands on Site 1, there is conflicting ecological evidence that, despite best efforts by the respective ecological experts to date, is not easily reconcilable. The delineation of the wetlands on Site 1 and the extent and values associated with those wetlands are in contention. Without being able to readily determine the existing environment that will be adversely affected, it is not possible to assess the potential adverse effects on the ecological values resulting from the proposal.

86. It is understood that there has been further exchange of information between the ecologists and the applicant is intending to present further information prior to or at the hearing to directly address the concerns raised by RDL.
87. It is noted that Section 1.6 of the NPS-FW states as follows:
- (1) *In giving effect to this National Policy Statement, local authorities must use the best information available at the time, which means, if practicable, using complete and scientifically robust data.*
 - (2) *In the absence of complete and scientifically robust data, the best information may include information obtained from modelling, as well as partial data, local knowledge, and information obtained from other sources, but in this case local authorities must:*
 - (a) *prefer sources of information that provide the greatest level of certainty; and*
 - (b) *take all practicable steps to reduce uncertainty (such as through improvements to monitoring or the validation of models used).*
 - (3) *A local authority:*
 - (a) *must not delay making decisions solely because of uncertainty about the quality or quantity of the information available; and*
 - (b) *if the information is uncertain, must interpret it in the way that will best give effect to this National Policy Statement.*
88. As it stands at the time of preparing this report, Clauses (1) and (2) have been addressed by way of the information available, and it is considered that appropriate and practicable steps have been taken in attempts to reduce uncertainty regarding the extent of potential adverse effects on wetlands.
89. It is considered that Clause (3) applies. There is uncertainty about the quality and quantity of information available, to the extent that there is disagreement between experts regarding the extent and value of affected wetlands. Any decision must not be delayed due to this disagreement. The assessment of Regulation 45(6) of the NES-F suitably informs giving effect to the NPS-FW.

Section 104(1)(ab) – ENVIRONMENTAL offsetting or compensation

90. In this case, Section 104(1)(ab) is a relevant consideration. The application proposes offsetting for the loss of wetland on Site 1 by the way of a constructed wetland on Site 3. A more detailed consideration of this is provided in the assessment of the relevant planning provisions below.

Section 104(1)(b) - Provisions of standards, policy statements and plans

91. Section 104(1)(b) requires a decision-maker to have regard to the relevant provisions of a suite of planning documents at a national, regional and district level. Those that are considered to contain relevant provisions required to be had regard to in this report are as follows:

- New Zealand Coastal Policy Statement 2010.
- National Policy Statement on Renewable Electricity Generation 2011.
- National Policy Statement on Freshwater Management 2020.
- Resource Management (National Environment Standards for Freshwater) Regulations 2020.
- Northland Regional Policy Statement 2016.
- Proposed Regional Plan for Northland Operative in Part 2023.

92. For completeness, it is recorded that the National Policy Statements relating to Electricity Transmission, Indigenous Biodiversity, and Urban Development are not considered relevant to the proposal. There are no direct or obvious implications of the application that engage these NPS's. The National Policy Statement for Highly Productive Land and the National Environmental Standard addressing Contaminated Land have been considered in the granting of the WDC consent.

New Zealand Coastal Policy Statement

93. Part of Site 1 is located within the coastal environment as defined in the RPS, and is therefore subject to consideration under the New Zealand Coastal Policy Statement 2010. However, the area subject to the coastal environment will not be subject to any earthworks or development, and only extends into the area identified as 'Kanuka Block' and 'wetland' that will be retained and enhanced on Site 1.

94. It is therefore considered that the objectives and policies of the NZCPS are engaged by the proposal, but the proposal will be consistent with the NZCPS.

National Policy Statement on Renewable Electricity Generation 2011

95. Section 6.6 of the application provides an assessment of the NPS-REG provisions. The assessment provided under 6.6.2 is generally accepted and adopted for the purpose of this report. As alluded to in the application, Policies C1 and C2 in the NPS-REG are directly engaged by the application. Those policies read as follows:

'POLICY C1

Decision-makers shall have particular regard to the following matters:

- a) the need to locate the renewable electricity generation activity where the renewable energy resource is available;
- b) logistical or technical practicalities associated with developing, upgrading, operating or maintaining the renewable electricity generation activity;
- c) the location of existing structures and infrastructure including, but not limited to, roads, navigation and telecommunication structures and facilities, the distribution network and the national grid in relation to the renewable electricity generation activity, and the need to connect renewable electricity generation activity to the national grid;
- d) designing measures which allow operational requirements to complement and provide for mitigation opportunities; and
- e) adaptive management measures.

POLICY C2

When considering any residual environmental effects of renewable electricity generation activities that cannot be avoided, remedied or mitigated, decision-makers shall have regard to offsetting measures or environmental compensation including measures or compensation which benefit the local environment and community affected.'

96. The information provided with the proposal is considered to be sufficient to address clauses a) – e) of Policy C1. It is noted that none of the clauses include specific reference to environmental effects considerations – they appear to be directed at operational constraints, although adaptive management measures are understood to be aligned with adaptive management in an environmental context.
97. In addressing Policy C2, as discussed in the effects assessment above, there is disagreement regarding the extent of ecological effects arising from the proposal. Avoidance of the wetlands is recommended by RDL, while a combination of avoidance, removal, and offsetting is considered appropriate by the applicant.

National Policy Statement on Freshwater Management 2020

98. Section 6.7 of the application provides an assessment of the NPS-FW provisions. The provisions identified in that assessment are directly relevant to the proposal. In addition, Objective 2.1(1)(c) and Policy 15 is engaged where renewable energy is considered to provide for social and economic well-being now and for the future, which is a central tenet of the NPS-REG. Cultural well-being is considered to be suitably addressed by the expression of cultural perspectives from Patuharakeke Te Iwi Trust Board and Te Parawhau Hapu Korero. These perspectives include commentary that are considered to address Policies 1, 2, and 15 of the NSP-FW as they relate to giving effect to Te Mana o te Wai, the consultation process has provided for Māori freshwater values to be identified and provided for, and the proposal enables some recognition of cultural well-being via the provision of a *Mara Rongoa* within the constructed wetland design⁶.
99. The application refers to Policy 4 '*Freshwater is managed as part of New Zealand's integrated response to climate change*' as being of most relevance (in conjunction with policy 6). In reviewing this Policy and associated context of the NSP-FM, it is considered this policy is not directly related to the application. The Policy is considered to be more relevant to generation of hydroelectric power rather than loss of wetlands associated with construction of renewable energy sources such as solar farms.
100. Policy 6 states '*There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.*' Section 3.22 of the NPS-FM directs policy wording and framework to be included in the relevant regional plan. The RPN has incorporated these changes via policy D.4.23 Natural Inland Wetlands. Therefore, an assessment of the relevant provisions of the RPN provided below addresses the NPS-FM requirements, noting that Section 104D(1)(b) requires consideration of the objectives and policies of the relevant plan. This assessment is provided despite the findings in assessing the NES-F provisions below in the event the applicant provides suitable evidence prior to or at the hearing to address the NES-F conclusion below.

Resource Management (National Environment Standards for Freshwater) Regulations 2020.

101. The application seeks consent under Regulation 45 Construction of Specified Infrastructure. For completeness, 'specified infrastructure' is defined in Appendix 3 of the RPS, and includes:

⁶ Where those policies are to be read in the context of a resource consent application.

'...(f) Electricity generation facilities (including Ngāwhā geothermal power station and Wairua hydroelectric power station) which supply electricity to either the national grid or the local distribution network'.

The proposed solar farm is considered to be an electricity generation facility intended to supply electricity of the national grid and therefore is specified infrastructure based on this definition.

102. The NES-F sets out the activities under Regulation 45 requiring discretionary activity consent as previously addressed in this report. Regulation 45(6) states as follows:
- '(6) A resource consent for a discretionary activity under this regulation must not be granted unless the consent authority has first—
- (a) satisfied itself that the specified infrastructure will provide significant national or regional benefits; and
 - (b) satisfied itself that there is a functional need for the specified infrastructure in that location; and
 - (c) applied the effects management hierarchy.'
103. Clauses (a) – (c) specify three prerequisites that each need to be met in order to consider granting consent to the activities sought under the NES-F.
104. The evidence provided is considered sufficient to satisfy the requirement that the proposed specified infrastructure is of a location and scale that it will provide (at least) significant regional benefits and therefore can satisfy regulation 45(6)(a). Those benefits are identified in the application but can be summarised as development of a significant source of renewable energy as a response to climate change, security of energy generation and supply for Northland, and subsequent social and economic benefits associated with on-going sustainable development of electricity supply.
105. The functional need for the specific infrastructure in that location specified under Regulation 45(6)(b) is addressed in both the application and through provision of additional information during the processing of the application. A legal opinion has been provided from Chapman Tripp under cover of letter dated 27 June 2024, which includes reference to case law where the matter of functional need has been considered. That opinion refers back to and supports an assessment of the functional need provided by way of letter dated 11 March 2024 (provided as an unsigned memo from Meridian Limited). That memo lists various matters (a) – (g) as justification for functional need for the solar farm to be located on Site 1, as well as justification for offsetting of ecological effects via a constructed wetland on Site 3.

106. Careful consideration has been given to the information provided and whether it supports a position that there is a functional need for the activity in that location. 'Functional need' is defined in Subpart 3 of the National Policy Statement for Freshwater Management 2020 (NPSFM), clause 3.21, as follows:

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

107. The evidence from Meridian sets out that the primary functional need for the solar farm to be located in that environment is so that it is adjacent to (or as near as possible to) the Bream Bay sub-station and BESS site. The location of this existing infrastructure is considered to be a primary reason for the proposed solar farm to be located and operated in the intended location. The evidence indicates that that existing infrastructure is necessary for the proposal to function, i.e. the proposed solar farm can only occur in that environment. It is understood that if there was no ability to readily connect a proposed solar farm to suitable infrastructure such as a sub-station and/or BESS, it would not be functionally viable on that site. On that basis, it is considered that there is suitable evidence to show a functional need for the proposal in that environment.
108. The effects management hierarchy referred to under Regulation 45(6)(c) is defined under 3.21 of the NPS-FM. The application includes a document entitled '*Engineering Alternatives and Optimisation Report - Ruakākā Energy Park Solar Farm*' at Appendix 3. This document states its purpose as presenting '*...the Engineering options assessment undertaken for the Ruakākā Energy Park Solar Farm against a range of criteria to determine a solar farm layout that achieves an efficient and practicable (commercially viable) solar farm on the sites that avoids the maximum extent of wetlands*'.
109. It is understood that this document adopts the findings of BML as it relates to the extent and value of wetlands on Site 1 as the starting point for assessing and implementing an effects management hierarchy. The disparity in views between BML and RDL regarding the ecological extent and values of the wetlands on Site 1 results in a difference of opinion regarding the application of the hierarchy to the proposal. RDL expresses the opinion that the hierarchy has not been appropriately applied to the site, given the significant and irreplaceable values associated with the wetlands on Site 1. RDL provides an assessment of the relevant provisions contained in Appendix 6 of NPS-FM Principles for Aquatic Offsetting in support of this opinion.
110. Further detail regarding RDL's position on this matter is provided in the statement attached to this report. Adopting the position as set out by RDL, the proposal cannot be considered to satisfy Regulation 45(6)(c).

111. Based on the above assessment, and relying on the expert opinion of RDL, consent cannot be granted under the NES-F.

Northland Regional Policy Statement 2016

112. Section 6.8 of the application addresses the provisions of the RPS. The assessment is generally accepted and adopted for the purpose of this report, with the exception that reference to ‘Three Waters Management (TWM)’⁷ appears to be an error. It is noted that the RPS has not been updated to reflect changes resulting from national planning documents introduced since 2018, including the NPS-FW. While the RPS contains a number of relevant provisions set out and discussed below, the national direction set by the NPS-FW in particular has since been incorporated directly into the RPN, with no corresponding changes to the RPS. On this basis, consideration of the proposal against the RPS provisions as it relates to the ecological effects in particular is summarised only. A more detailed and focused assessment is provided against the RPN provisions.
113. Objectives 3.5 Enabling Economic Wellbeing, 3.7 Regional Significant Infrastructure, 3.8 Efficient and Effective Infrastructure, and 3.9 Security of Energy Supply are all considered to be engaged by the proposal. These objectives are read as supporting the proposal. In particular, Objective 3.9 Security of Energy Supply is considered to encapsulate the relevance of all four objectives to the proposal, with the following statement made in the Explanation:
- ‘Northland’s relatively low rate of generation, coupled with the vulnerability of energy supply through Auckland and the network within Northland, is detrimental to the social and economic wellbeing of the region. For example, Northland has a number of industries that rely on a secure supply of energy such as the Marsden Point oil refinery, primary production activities such as dairying and horticulture and other industrial and commercial activities, including manufacturing and processing. Diverse sources of energy generation in Northland will give the region security and provide economic, social and environmental benefits. The region also needs to reduce its reliance on fossil fuels by promoting the development of renewable energy sources.’*
114. The supporting policies for these objectives are generally grouped together under the ‘Regional Form and Infrastructure’ section of the RPS. The relevant policies are considered to be:
- Policy 5.2.3 - Infrastructure, growth and economic development,
 - Policy 5.3.2 - Benefits of regionally significant infrastructure,

⁷ Three Waters Management (TWM) is a Whangarei District Plan Chapter.

- Policy 5.3.3 - Managing adverse effects arising from regionally significant infrastructure
 - Policy 5.4.1 - Recognising and providing for the benefits of renewable electricity generation activities and supporting the sustainable use and development of Northland's renewable energy resources.
115. The proposal is considered to be consistent with these policies generally for the reason expressed in Section 6.8.2 of the application. The proposal promotes the provision of renewable energy infrastructure, the benefits are considered to be significant, and Policy 5.4.1 is considered to give effect to NPS-REG.
116. However, Policy 5.3.3 sets out proviso to the supportive themes of the RPS provisions by specifying criteria to be considered when considering adverse effects arising from establishment and operation of regionally significant infrastructure. This policy is set out below in full.
- (1) Allow adverse effects arising from the establishment and operation of new regionally significant infrastructure and the re-consenting of existing operations where:
 - (a) The proposal is consistent with Policies 4.4.1(1), 4.4.1(2), 4.6.1(1)(a), 4.6.1(1)(b), 4.6.1(2) and 4.6.2 (1);
 - (b) The proposal does not result in established water quality limits or environmental flows and / or levels being exceeded or otherwise could lead to the over-allocation of a catchment (refer to Policy 4.1.1);
 - (c) Damage to and / or loss of the relationship of iwi with ancestral sites, sites of significance, wāhi tapu, customary activities and / or taonga is avoided or otherwise agreed to by the affected iwi or hapū; and
 - (d) In addition to the matters outlined in 1) (a) – (c) above, other adverse effects are avoided, remedied or mitigated to the extent that they are no more than minor.
 - (2) Allow adverse effects arising from the maintenance and upgrading of established regionally significant infrastructure wherever it is located, where:
 - (a) The adverse effects whilst the maintenance or upgrading is being undertaken are not significant; and
 - (b) The adverse effects after the conclusion of the maintenance or upgrading are the same or similar to before the activity being undertaken.
 - (3) When managing the adverse effects of regionally significant infrastructure decision makers will give weight to:
 - (a) The benefits of the activity in terms of Policy 5.3.2;

- (b) Whether the activity must be recognised and provided for as directed by a national policy statement;
 - (c) Any constraints that limit the design and location of the activity, including any alternatives that have been considered which have proven to be impractical, or have greater adverse effects;
 - (d) Whether the proposal is for regionally significant infrastructure which is included in Schedule 1 of the Civil Defence Emergency Management Act as a lifeline utility and meets the reasonably foreseeable needs of Northland.
 - (e) The extent to which the adverse effects of the activity can be practicably reduced. Such an assessment shall also take into account appropriate measures, when offered, to provide positive effects, either within the subject site or elsewhere provided that the positive effects accrue to the community of interest and / or resource affected; and
 - (f) Whether a monitoring programme for any identified significant adverse effects with unknown or uncertain outcomes could be included as a condition of consent and an adaptive management regime (including modification to the consented activity) is used to respond to such effects.
 - (g) Whether the infrastructure proposal helps to achieve consolidated development and efficient use of land.
117. Objective 3.4 Indigenous Ecosystems and Biodiversity is the relevant objective addressing consideration of the ecological effects of the proposal. Policy 4.4.1 Maintaining and protecting significant ecological areas and habitats is relevant to the proposal, noting that Clause (3) of the Policy refers to consideration of adverse effects outside the coastal environment. This Policy is considered to be effectively replaced by the NPS-FW and NES-F provisions as they relate to natural inland wetlands.
118. Objective 3.12 Tāngata whenua role in decision-making accommodates consideration of the cultural effects of the proposal. This objective and associated policies are considered to be suitably addressed by the information provided both with the application and through submissions.
119. Objective 3.13 Natural Hazard Risk includes consideration of risks and impacts on infrastructure and includes a directive under Clause (c) of the Objective of *'Avoiding inappropriate new development in 10 and 100 year flood hazard areas and coastal hazard areas'*; Policy 7.1.5 – Regionally Significant Infrastructure and Critical Infrastructure informs that objective. Clauses (1) and (2) of that policy are considered to be suitably addressed by information in the application, noting that:
- The solar farm once established is a passive activity where the panel structures can be established and operated without being unduly affected by any potential flood hazard as identified across the sites.

- The need for earthworks and associated infrastructure to be located within the flood hazard is based on the scale of the proposal requiring large areas of land, the location of the Sub-station and BESS in proximity to the panels, and the suitable land zoning of Sites 1 and 2 to accommodate the proposal.
- The proposed location (particularly Sites 2 and 3) is considered appropriate noting the underlying land zoning, the cultural considerations that have informed the proposal, and the availability of large tracts of relatively flat suitable land located close to the Sub-station and BESS site.
- Detailed modelling of the flood hazard and associated off-site effects associated with displacement of water resulting from earthworks has been undertaken and reviewed by WTL for NRC. The extent of the hazard will not be exacerbated on any surrounding land subject to suitable conditions of consent.

Proposed Regional Plan for Northland Operative in Part 2023

120. The RPN provisions are set out in Section 6.9 of the application. Relevant objectives and policies are identified in the assessment provided, noting that one additional policy is identified as relevant, being D.6.5 Flood Hazard Management – Development Within Floodplains. For completeness, the relevant objectives identified in Section F of the RPN are considered to be as follows:
- F.1.3 Indigenous Ecosystems and Biodiversity,
 - F.1.5 Enabling Economic Well-being,
 - F.1.6 Regionally Significant Infrastructure,
 - F.1.7 Security of Energy Supply,
 - F.1.9 Tāngata whenua role in decision-making
 - F.1.10 Natural hazard risk
121. In assessing the objectives and policies, it is considered that the proposal will be generally consistent with the majority of provisions relating to tāngata whenua, enabling economic well-being, regionally significant infrastructure, and natural hazards. This is based on the conclusions reached in the assessment of effects and consideration of provisions in higher order documents, none of which suggest a direct conflict between the proposal and any such provisions.
122. Those policies contained in the RPN that require more detailed assessment are considered to be as follows:
- D.2.7 Minor adverse effects arising from the establishment and operation of Regionally Significant Infrastructure

- D.2.9 Appropriateness of Regionally Significant Infrastructure proposals (except the National Grid)
 - D.2.12 Renewable energy
 - D.2.18 Managing adverse effects on indigenous biodiversity
 - D.2.20 Precautionary approach to managing effects on significant indigenous biodiversity and the coastal environment
 - D.4.22 Natural wetlands – requirements
 - D.4.23 Natural inland wetlands
 - D.4.24 Wetland – values
123. Consistency with those policies referring to regionally significant infrastructure hinge on *inter alia* allowing minor adverse effects⁸, considering the benefits of regionally significant infrastructure, and demonstrating a functional need for the activity. These three themes are considered to underpin the assessment as to whether the proposal is consistent with the RPN and align with Regulation 45(6) of the NES-F.
124. Policy D.4.23 Natural Inland Wetlands in the RPN has been included at the direction of 3.22 Natural Inland Wetlands contained in the NPS-FW. The application includes a brief commentary on 3.22 of the NPS-FM at paragraph 6.7.2 and concludes that the proposal is consistent with it. The relevant part of Policy D.4.23 as stated in the RPN is as follows:

'D.4.23 Natural inland wetlands

The loss of extent of natural inland wetlands is avoided, their values are protected, and their restoration is promoted, except where:

- 1) *the loss of extent or values arises from any of the following:*
 - a) *the customary harvest of food or resources undertaken in accordance with tikanga Māori;*
 - b) *wetland maintenance, restoration, or biosecurity (as defined in the National Policy Statement for Freshwater Management) activities;*
 - c) *scientific research;*
 - d) *the sustainable harvest of sphagnum moss;*

⁸ Noting that this reflects the test under Section 104D(1)(a) for a non-complying activity.

- e) *the construction or maintenance of wetland utility structures (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020);*
 - f) *the maintenance or operation of specified infrastructure, or other infrastructure (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020);*
 - g) *natural hazard works (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020); or*
- 2) *the Regional Council is satisfied that:*
- a) *the activity is necessary for the construction or upgrade of specified infrastructure; and*
 - b) *the specified infrastructure will provide significant national or regional benefits; and*
 - c) *there is a functional need for the specified infrastructure in that location; and*
 - d) *the effects of the activity are managed through applying the effects management hierarchy; or...’.*

125. This policy reflects the wording of Regulation 45(6) which has been assessed above. This Policy is only relevant should a finding be made that Regulation 45(6) can be met by the proposal. If Regulation 45(6) can be met, then it is considered that the proposal will be consistent with Policy D.4.23, and will suitably address and avoid any conflict with the other identified policies of the RPN in terms of wetland loss and ecological effects.

Conclusion regarding consistency with Planning Provisions

126. Based on the expert opinion provided by RDL on behalf of NRC, it is considered that Regulation 45(6) of the NES-F cannot be satisfied. Therefore, there is no ability to grant consent to the activities sought under the NES-F as they relate to Site 1.
127. Despite this finding, the assessment above has considered the full suite of national and regional standards, regulations, statements, and plans. There are a number of objectives and policies from the NPS-REG through the RPS and RPN that support and promote renewable energy development. However, all of the relevant provisions have a proviso requiring consideration of the extent of adverse effects that may arise. That consideration is encapsulated in the assessment of Regulation 45(6) the NES-F.
128. Should a finding be made that Regulation 45(6) can be satisfied, on the basis that the effects management hierarchy has been appropriately applied, then the proposal is open to a finding that it is consistent with all relevant planning provisions, and more particularly to then satisfy the gateways test under Section 104D(1).

Section 104(1)(c) – Other matters

129. Section 104(1)(c) allows the decision-maker to consider any relevant and reasonably necessary matters in order to determine the application. Two matters are considered relevant and reasonably necessary to consider in order to determine the application.
130. Section 7 of the application identifies several statutory and international requirements addressing climate change. These are considered relevant insofar as they add weight to the need for consideration of renewable energy sources. Insofar as it may be relevant, New Zealand is a signatory to The Ramsar Convention on Wetlands, which is an intergovernmental treaty for the conservation and wise use of wetlands and their resources. Regardless, it is considered that these documents do not readily assist in determining the application. They do not add any weight or imply further obligations to be met through the resource consent process, and are only read as being ancillary to ad informing the likes of the NPS-REG and NPS-FW.
131. The second matter relates to any precedent effect arising from the granting of consent. A precedent effect is likely to arise in situations where consent is granted to a non-complying activity that lacks any evident unique, unusual or distinguishing qualities that serve to take the application outside of the generality of cases or similar sites in the vicinity.
132. In this case, any potential precedent effect would be very unlikely. The circumstances of the proposal in terms of character, scale, and location would mitigate against any possibility of a precedent being set should consent be granted.

Section 104D – Non-complying activity

133. Section 104D requires consideration only where a finding is made that Regulation 45(6) of the NES-F can be satisfied. Should that finding be made, the ‘gateway test’ set out under Section 104D as stated in the ‘Statutory Provisions’ section of this report applies.
134. In the event the expert opinions of BML and RDL can be reconciled such that Regulation 45(6) is satisfied, it will be possible to find that the proposal passes both gateway tests, where the adverse effects are minor and the proposal is consistent with the objectives and policies of (in this case) the RPN.

Part 2 of the Act

135. The application does not include any consideration as to whether recourse is required back to Part 2 of the RMA in making any decision on the application. In this case, the matters requiring consideration are specific and the national and regional planning documents directing the assessment of the proposal are extensive and comprehensive. On this basis, an assessment of Part 2 matters is not considered to be necessary in order to determine the proposal.

Conclusion and recommendation

136. An application has been lodged with NRC for bulk earthworks, drainage, vegetation clearance and works within wetlands across three separate sites at Ruakaka. The purpose of the works is to provide for the establishment, operation and maintenance of a solar energy farm, including solar panels, inverters and related electrical infrastructure, and ancillary activities such as transmission lines, control buildings and substations.
137. The extent of adverse effects arising from proposed activities on Sites 2 and 3 are considered to be minor in all respects. The information provided with the application and subsequent reviews of that information for NRC find that there are no significant values on those sites that will be adversely affected. The proposed earthworks can be undertaken without increasing any risk of off-site flood hazards occurring, subject to conditions.
138. The extent of earthworks on Site 1 will cause a loss of wetland intended to be offset as proposed in the application. Based on the advice from RDL acting for NRC, the ecological effects will be more than minor and potentially significant. The only way to provide for development on any part of Site 1 is to avoid effects on the wetlands, the extent and value of which is not agreed between experts. That finding informs the assessment of Regulation 45(6) of the NES-F and resulting conclusion that the Regulation cannot be satisfied for reasons set out in this report. Consent therefore cannot be granted to the application as proposed.
139. It is acknowledged that the consistency of the proposal with provisions contained in the NPS-REG, RPS, and RPN carries significant weight in considering a grant of consent but fall outside the consideration of Regulation 45(6).
140. This report has been prepared on a 'proviso' basis, where it is anticipated that further information may be provided by the applicant prior to or at the hearing that may satisfy Regulation 45(6) in all respects. Should that occur, and Regulation 45(6) can be satisfied, further assessment under Section 104 and 104D has been provided to consider a possible grant of consent.

141. Consideration has been given to possible alternative pathways for a recommendation to partially grant consent, or recommend conditions to support a grant of consent, that may reconcile the differing expert opinions regarding ecological effects. Such an approach might involve grant of consent only for development on Sites 2 and 3, or partial or conditional consent for works on Sites 1 - 3 if a position addressing the loss of wetlands could be ascertained. However, such an approach is not considered appropriate at this time. It will be for the applicant to advise on options they may consider acceptable in terms of any such approach to the grant of consent, noting that it is understood that the viability of the project rests on the extent of the activities across Sites 1 – 3 as proposed.
142. It is acknowledged that the Applicant has provided a set of draft conditions at Appendix 10 of the application that may be considered as the basis for a discussion with NRC staff on conditions that may form part of a grant of consent.