

**Report pursuant to s42A
Resource Management Act 1991**

In the matter of:	A Notice of Requirement to construct and operate a new intermodal rail and freight hub on land between Palmerston North and Bunnythorpe
And:	A hearing by Palmerston North City Council pursuant to s100A
Requiring Authority:	KiwiRail Holdings Ltd
Hearing date:	9 August 2021

S42A Planning Evidence: Effects and Recommendations Summary Table: KiwiRail Freight Hub Notice of Requirement.

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Report date: 18 June 2021

Purpose of the Effects and Recommendations Summary Table

The following table should be read alongside the s 42A Planning Report. It has been prepared to provide an accessible summary of effects of the NOR we have identified and recommendations we make regarding those effects. It is intended to reflect the analysis and recommendations given in the s 42A Planning Report.

The table provides a summary of:

- a) effects that have been identified by KiwiRail, submitters and the Council's s 42A reporting team;
- b) our recommendations to address these effects;
- c) recommendations for the content of new or modified conditions; and
- d) references to where these effects and recommendations are fully addressed in our report.

All references to condition numbering are to the set of modified conditions provided by KiwiRail in the February 2021 s92 response.

We have not included condition drafting as we consider it would be more efficient for KiwiRail, submitters and the Panel to review and make any further recommendations, before effort is spent on drafting detail. We welcome working with planning experts from other participants to draft and refine the conditions.

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Effects and Recommendations Summary Table

Description	Recommendation	Condition requirements
Section 9.2 Traffic and transport		
<p>Adverse effects of increased traffic and heavy vehicles on the safety and efficiency of the road network, including at the central Bunnythorpe “node” and more widely (in particular along Tremaine Avenue).</p> <p>Effects of the change in road layout and traffic redistribution on the safety and efficiency of the road network.</p>	<p>We expect that mitigation for wider traffic effects will be provided by Waka Kotahi and the Council.</p> <p>To support the collective response, it will be important to obtain traffic data from operation of the Freight Hub. This should be undertaken annually at approximately the same time of the year, and during a period which is outside of school and public holiday periods. Week long traffic counts should be undertaken at Freight Hub connections to public roads and at key locations in the network, including on roads which may be used for rat runs. The locations should be included in the conditions or agreed through the RNIP.</p> <p>The outcomes of traffic monitoring should be used to refine and update the Operational Traffic Management Plan.</p> <p>We recommend a number of modifications to the Operational Traffic Management Plan to provide for Ms Fraser’s recommendations.</p>	<ol style="list-style-type: none"> 1. Include a condition requiring KiwiRail to undertake traffic monitoring annually once operation of the Freight Hub has commenced, at [locations to be specified] for a period of no less than 7 days. The traffic counts must be collected at approximately the same time of year and must not be undertaken during school or public holidays. 2. Modify Condition 67 to require the results of the traffic monitoring to be used to refine and update the Operational Traffic Management Plan. 3. Include a condition that the Requiring Authority shall consult with Waka Kotahi, PNCC, Horizons Regional Council and Manawatu District Council in preparing the Operational Traffic Management Plan and include the outcomes of that consultation, and how it has been responded to, in the plan. 4. Amend Condition 66 to add details of the geographical area [to be specified] to which the Operational Traffic Management Plan will apply.

Description	Recommendation	Condition requirements
	<p>We recommend conditions requiring Level of service assessments and safety audits are undertaken both pre and post development at the intersections and vehicle crossings identified by Ms Fraser.</p> <p>KiwiRail must demonstrate that the existing level of service and safe provision as at pre-development stage, will be maintained when the Freight Hub is operational. Operation is not to commence until this has been demonstrated.</p> <p>We recommend including a condition providing for safe and practical access for 422 and 422A Railway Road to Roberts Line, recognising the access needs of the business.</p>	<ol style="list-style-type: none"> 5. Modify Condition 67(a) to include the actual and forecast traffic loadings on each of the Freight Hub accesses. 6. Modify Condition 67(b) to specify the method for assessing performance - via road safety audits and modelling of the intersection performances, including allowance for interaction with internal rail crossings. 7. Modify Condition 68 to include a trigger for review of the OTMP where there are changes to the external road network such as construction of the ring road or bypasses of Bunnythorpe. 8. Modify Condition 41 to include the following additional level crossings: <ol style="list-style-type: none"> a) pedestrian level crossings in the vicinity of Aorangi Marae and Taonui school b) Campbell Road crossing south of Feilding. 9. Modify Condition 42 to require engagement with Manawatu District Council in the case of (c) and (d) above. 10. Include a new condition: that KiwiRail shall undertake monitoring and assessment of the safety and performance of the local road network through pre-opening road safety audits and level of service assessment of the intersections, links and accesses listed in Condition [as above] to establish the baseline conditions at these intersections, links and accesses. 11. Include a new condition: Prior to construction or modification of any of the changes to the intersections, links and accesses listed in Condition [as

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		<p>above], KiwiRail shall undertake traffic modelling and submit the outcomes of this modelling to the Council for review and certification, to demonstrate that the design will achieve:</p> <ul style="list-style-type: none"> a) An intersection level of service of D or better, as modelled with SIDRA or similar; and b) Road safety audits with no serious or significant safety concerns at the time of opening of the Initial and then Full Stages. <p>12. The following infrastructure shall be modelled and assessed:</p> <ul style="list-style-type: none"> a) Railway Road from Roberts Line to Airport Drive including the side road intersections and accesses onto Railway Road; b) central Bunnythorpe including the intersections of Kairanga Bunnythorpe Road with each of Railway Road and Campbell Road and the interaction with the level crossing, the Maple Street intersection with Railway Road, accesses onto Maple Street and Campbell Road within central Bunnythorpe; c) SH54/ Waughs Road; and d) Stoney Creek Road including its intersections with Ashhurst Road and Kelvin Grove Road. <p>13. Include a condition: Construction shall not commence until the outcomes of the modelling required by Condition [as above] have been peer reviewed and certified by the Council.</p>

Description	Recommendation	Condition requirements
		<p>14. Include a condition: The Requiring Authority shall provide vehicle access for 422 and 422A Railway Road which achieves safe and practical access to Roberts Line [details to be drafted to achieve a construction standard consistent with Rule R20.4.2(a)].</p>
<p>Potential for a poorly integrated arterial road network in the vicinity of Bunnythorpe if the Freight Hub (including the perimeter road) and the ring road designs are not properly aligned and integrated.</p>	<p>KiwiRail propose to prepare a Road Network Integration Plan as a means of ensuring the roading network for the Freight Hub is appropriately managed and integrated with the wider transport network.</p> <p>We recommend a number of changes to the Road Network Integration Plan conditions to:</p> <ul style="list-style-type: none"> a) Require the RNIP to be updated when the vehicle movements associated with the Freight Hub exceed 4,200 vpd and again when they exceed 8,000 vpd. b) Be more specific that the outcome is the safe and efficient operation of the transport network. c) Require the RNIP to be peer reviewed and certified that it achieves the objective of the RNIP and addresses the matters set out in Condition 46. d) Prepare the first RNIP prior to completion of detailed design. e) Require the RNIP to be subject to consultation with Manawatu District Council (as Road Controlling Authority) 	<p>15. Modify Condition 43 to require the RNIP to be prepared <u>and implemented</u>.</p> <p>16. Modify Condition 43 to require the RNIP to be prepared prior to completion of detailed design and lodgement of the first outline plan.</p> <p>17. Include a new condition: The RNIP shall be updated once detailed design is completed. The RNIP shall be reviewed and updated when the vehicle movements associated with the Freight Hub exceed 4,200 vpd and again when the vehicle movements associated with the Freight Hub exceed 8,000 vpd . The results of any review and update to the RNIP shall be circulated to the parties set out in condition 45.</p> <p>18. Modify Condition 44 to include wording to specify that: the outcome should be appropriately managed and integrated <u>to ensure the safe and efficient operation</u> of the wider transport network.</p> <p>19. Include a new condition requiring the RNIP to be submitted to the Council for peer review and certification that it meets the requirements of the RNIP condition 44 and 46.</p> <p>20. Modify Condition 46(c) to include reference to the timing of any changes and upgrades.</p>

Description	Recommendation	Condition requirements
	along with the other parties already specified.	21. Modify Conditions 45 and 46 to require consultation with Manawatū District Council.
Uncertainty as to how the Freight Hub will accommodate safe, efficient, and future proofed integration with the NEIZ, such as provision for a dedicated freight corridor as demand for freight transport between the two 'nodes' increases.	We recommend that a condition be added requiring that KiwiRail demonstrates in the detailed design how the Freight Hub could be integrated with the NEIZ, in a manner consistent with any master plan for the Central NZ Distribution Hub. This information should be provided with the Outline Plan(s).	22. Include a new condition: KiwiRail shall demonstrate in the detailed design constructable options for how the Freight Hub could be integrated with the NEIZ, in a manner consistent with any master plan for the Central NZ Distribution Hub; and provide this information with any outline plan(s).
Effects on access connections for individual properties, from minor roads and from the NEIZ.	<p>The perimeter road must be fully formed and connected to the road network before Railway Road is closed.</p> <p>We recommend that the mitigation identified as required to be delivered by KiwiRail in the ITA at Section 11 is included in the designation conditions.</p> <p>As set out above, we recommend that KiwiRail is required to undertake pre and post development road safety audits and level of service assessments at the locations specified by Ms Fraser.</p>	<p>23. Include a condition that the perimeter road must be fully formed and connected to Railway Road to the north and south prior to the closure of Railway Road.</p> <p>24. Include a condition that all new and realigned public roads shall be vested in the Council upon their completion.</p> <p>25. Include a condition that all new roads and vehicle crossings shall be constructed in accordance with the Councils roading standards.</p> <p>26. Include a condition that: The infrastructure upgrades set out in Section 11 of Technical Report C: ITA shall be undertaken by KiwiRail prior to opening of the Freight Hub.</p>
Effects on cyclists, pedestrians and other vulnerable road users from road network changes, the increase in heavy vehicles and potential	We recommend conditions to ensure the shared path can be constructed prior to Freight Hub construction and will be maintained throughout	27. Include conditions to address the shared path: <ul style="list-style-type: none"> a) That the shared path constructed between Palmerston North and Bunnythorpe is

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<p>disruption to the Council's proposed Palmerston North to Feilding shared path during construction and operation.</p>	<p>Freight Hub development and operation without disruption to shared path users.</p> <p>KiwiRail should provide an assessment of effects on pedestrians and cyclists within areas of increased truck activity, including commuter cyclist routes and the Te Araroa Trail. This should include an assessment of safety and travel times.</p> <p>Include conditions to require provision of a safe, separated path along the new perimeter road.</p>	<p>available at all times during construction and operation of the Freight Hub.</p> <ul style="list-style-type: none"> b) If a diversion is required, a diversion management plan for the shared path must be prepared and submitted to the Council for certification. c) Any diversion or modification to the shared path must have the same dimensions and surface treatment as the path that existed. d) Any diversion or modification must be undertaken in accordance with the certified diversion management plan. <p>28. Include a new condition: A safe separated path comprising of a permanent surface of at least 2.5m in width must be constructed along the entirety of the new perimeter road between the connections to Railway Road to the north and south, for cyclists [and pedestrians], including through or around intersections.</p> <p>29. Include a new condition: That a safe connection across the railway line is provided for cyclists and pedestrians to replace the level crossing at Roberts Line that will be closed to construct the Freight Hub. The purpose of the connection is to provide safe cyclist and pedestrian access between the shared path and the perimeter road. The location of the crossing shall be within 200m of the level crossing that is to be removed, or at such other location as agreed between the Council and KiwiRail.</p>

Description	Recommendation	Condition requirements
<p>Limited information on the scale and nature of construction traffic effects.</p>	<p>More information is required from KiwiRail to fully understand the character and scale of potential construction effects and to determine the appropriate mitigation.</p> <p>We support the use of a CTMP to manage construction traffic effects as proposed but recommend some amendments to these conditions.</p>	<p>30. Modify Condition 54 to state that the CTMP must be prepared at least six months prior to commencement of construction.</p> <p>31. Modify Condition 55 to state that the objective of the CTMP is to outline the methods that will be undertaken to minimise adverse effects from construction traffic and construction works on property access, road user safety and efficiency of the road network.</p> <p>32. Modify condition 57 to include a new clause after (b): identify any safety or upgrade works that are needed to ensure safe site access routes and access points, including the possible night-time movement of construction vehicles.</p> <p>33. Modify Condition 57(f) and (h) to list the affected properties.</p> <p>34. Modify Condition 57(c) to specify the affected infrastructure including public transport, walking and cycling and school bus routes and infrastructure.</p> <p>35. Include a new condition requiring KiwiRail to undertake consultation with the following parties during preparation of the CTMP: PNCC, Waka Kotahi, Horizons RC, Ministry of Education, and Manawatu District Council. The feedback received from that consultation and how that feedback has been responded to shall be included in the CTMP.</p> <p>36. Include a new condition requiring the CTMP to be reviewed at six monthly intervals, taking into account the results of construction traffic monitoring. Where necessary the CTMP shall be updated to ensure that</p>

Description	Recommendation	Condition requirements
		<p>the CTMP is meeting the objective set out in Condition 55. Results of the review and any updated CTMP shall be provided to the Council for recertification.</p> <p>37. Include a new condition requiring construction traffic monitoring at [locations to be specified] and at a frequency [to be specified].</p> <p>38. Include a new condition that KiwiRail shall prepare a safe school travel plan for local schools [to be specified] in consultation with the Ministry for Education, the Council, Waka Kotahi, Horizons Regional Council and an appointed representative(s) from the schools. The safe school travel plan must identify safe travel routes for school traffic (to include walking and cycling), restrictions on the timing and types of vehicles using those routes and other measures [to be specified] to ensure the safety of school related traffic. The safe school travel plan shall be included in the CTMP.</p> <p>39. Modify Condition 57(d) to add: including details of how the shared path and Te Araroa Trail will be kept open and operational at all times.</p> <p>40. Modify Condition 57 to require that the CTMP shall: Take into consideration the need for the management of any combined / cumulative traffic effects associated with any other major construction activity occurring within the City at the same time.</p> <p>41. Modify Condition 57 to include a new clause: identify how access to the northern end of Richardsons Line at Roberts Line will be maintained at all times, to provide for truck access to and within the NEIZ.</p>

Description	Recommendation	Condition requirements
		<p>42. Modify Condition 57 to include a new clause: Provide details of how traffic movement along the Roberts Line corridor between 703 and 803 inclusive, and operational access to Foodstuffs at 703 Roberts Line, will be provided for at all times during construction, including for trucks.</p> <p>43. Include a new condition: Prior to commencement of construction, the Requiring Authority shall undertake a pre-construction inspection of [locations to be specified] and document, including using photographs, the condition of the roads. A copy of the pre-construction inspection report shall be provided to the Council prior to construction commencing.</p> <p>44. Include a new condition: During and on completion of construction, the Requiring Authority shall repair any damage caused to the roads as a result of construction traffic associated with the Freight Hub construction to at least the same condition as recorded during the pre-construction inspection undertaken in accordance with Condition [as above].</p>
<h3>Section 9.3 Noise and vibration effects</h3>		
<p>The Freight Hub will emit noise comparable with a major industrial development into an existing environment that currently has low ambient noise levels. Noise-generating activities could occur at any time within a 24 hour period, 7 days a week. Noise from the Freight</p>	<p>We recommend adopting the operational noise and vibration limits (noise and vibration emissions from the Freight Hub) identified by Mr Lloyd as set out in his report in Appendix A.</p> <p>We recommend adding and amending the conditions consistent with those set out in Appendix A of Mr Lloyds s 42A report, which includes enforceable noise standards.</p>	<p>45. Include a condition: Noise emissions should be no greater than 55dB LAeq(1hr) at all times and 85dB(LAmax) between 10pm and 7am. These limits apply at the (modelled 55 dB LAeq(1hr)) noise management boundary.</p> <p>46. Include a condition: All operational activities at the Freight Hub must be designed and conducted to ensure that noise does not exceed 65dB LAeq(1hr)</p>

Description	Recommendation	Condition requirements
<p>Hub will exceed criteria for reasonable noise at existing dwellings close to the Freight Hub. There is a high degree of uncertainty about the noise generated by the Freight Hub at each of the future operational stages because the details of what is to occur in those future stages is not yet known. Noise has been modelled for a particular scenario in the Acoustic Assessment, but this is only a placeholder.</p> <p>KiwiRail proposes a noise and vibration management plan as the primary means to manage future noise and vibration emissions. However, KiwiRail has not proposed noise emission limits.</p> <p>The cost of mitigating significant adverse noise effects on sensitive receivers beyond the Freight Hub boundary are not provided for in the NOR. Therefore, the costs of undertaking mitigation works to existing buildings, adapting peoples' way of life or relocating away from the effects will be the responsibility of</p>	<p>We recommend that KiwiRail is required to update the operational noise contour map once the design is confirmed. The updated map should be used to determine the relevant contours in the noise measurement boundary referred to in the above recommendations. The updated map should also be included in the Operational Noise and Vibration Management Plan.</p> <p>We recommend that KiwiRail considers modifying the designation to include any land where additional off-site mitigation will be required to avoid, remedy, or mitigate adverse effects. This would provide both KiwiRail and landowners with adequate process (under s 185 and s176(1)(b)) and provides opportunity to protect an owners right to reasonable use of their property.</p>	<p>within any site zoned Rural or Residential outside the designation.</p> <p>47. Include a condition: Vibration at any occupied building outside the designation shall not exceed 0.3 mm/s vw,95.</p> <p>48. Include a condition: Within the 45 dB LAeq(1hr) contour, noise emitted from the Freight Hub shall not cause the noise levels specified in Tables ZZ1 and ZZ2 (in Appendix A of Mr Lloyds report) to be exceeded. Include an advice note that noise exceedance may be measured or predicted.</p> <p>49. Include a condition: Where the condition above is not met, noise insulation and/or ventilation shall be installed (where accepted by the property owner) at KiwiRail's cost, to achieve the internal noise levels in Tables ZZ1 and ZZ2 (in Appendix A of Mr Lloyds report). The noise insulation shall assume maximum noise levels from either the current or any future Freight Hub operational noise contour map and the noise characteristic shall be that of a representative locomotive.</p> <p>50. Include a condition that KiwiRail shall update the operational noise contour map once the design is confirmed and submit this to the Council. The updated map will be the map against which compliance with the noise limits will be measured.</p> <p>51. Modify Condition 72 to include a requirement that the updated operational noise contour map is included in the ONVMP.</p>

Description	Recommendation	Condition requirements
<p>those receiving the effects rather than KiwiRail.</p> <p>Development of future noise-sensitive activities on surrounding land outside the proposed designation will not be controlled. New or existing landowners may, unaware of the nature and extent of noise effects prior to the Freight Hub becoming fully operational, establish new noise-sensitive activities that will later be subject to unmitigated Freight Hub noise.</p>		<p>52. Modify Condition 72(b) to include details of the noise barrier on the western boundary.</p> <p>53. No condition recommendation at this stage.</p>
<p>There is a high level of uncertainty as to the extent of adverse effects associated with road traffic noise and the exact location of these effects, including the potential for adverse cumulative effects of road traffic associated with the future regional freight ring road.</p>	<p>We recommend that the noise barrier on the western side of the Freight Hub be located between the Perimeter Road and dwellings wherever this is practical.</p> <p>The Acoustic Assessment assumes that a stone mastic asphalt surface will be applied to the perimeter road. We recommend this is included as a condition.</p>	<p>54. Include a condition that requires KiwiRail to construct the western noise barrier between the perimeter road and dwellings on Clevely Line and Roberts Line that exist at the time the NOR is confirmed. The noise barrier shall be constructed prior to construction of the perimeter road.</p> <p>55. Include a condition that requires the full length of the perimeter road to be surfaced with stone mastic asphalt.</p>
<p>The site establishment period is long (at least three years) and will involve heavy earthmoving equipment working over a large area. Mitigation of construction noise and vibration will be required for nearby dwellings.</p>	<p>We recommend amending the Construction Noise and Vibration Management Plan and Construction Traffic Management Plan conditions in line with Mr Lloyd's recommendations, which include:</p>	<p>56. Adopt conditions consistent with those set out in Mr Lloyd's Appendix A:</p> <ul style="list-style-type: none"> a) Limits and assessment – construction noise b) Limits and assessment – construction vibration.

Description	Recommendation	Condition requirements
<p>This may include off-site mitigation, although it is not clear what that off-site mitigation might entail, when this would be determined or put in place and who would be responsible for its implementation.</p>	<p>a) Adopting the construction noise criteria: NZS 6803:1999 <i>Acoustics – Construction Noise set out in Condition 59 (a)</i> within the CNVMP.</p> <p>b) Including construction vibration criteria for vibration control.</p> <p>c) Providing more specificity regarding limitations on heavy vehicle construction traffic routes during night and peak times, including where these limitations should be applied.</p> <p>We also recommend that KiwiRail provide further information to identify what “enhanced mitigation measures” will be required if construction noise and vibration limits cannot be achieved at nearby noise sensitive activities. KiwiRail have stated that they may not meet these standards but have not described how they will mitigate the resultant adverse effects.</p>	<p>57. Modify Conditions 58 – 61 in line with Mr Lloyd's recommended changes to the Construction Noise and Vibration Management Plan conditions.</p> <p>58. Modify Condition 57. The Construction Traffic Management Plan shall: identify the numbers, frequencies, and timing of traffic movements for each phase of the construction programme as developed under the Construction Management Plan, including any limitations on heavy vehicle movements through key areas (<u>including local roads</u>) during night (<u>10pm to 7am</u>) and peak times [<u>to be specified</u>] as required <u>to mitigate noise and vibration effects on noise sensitive activities</u>.</p> <p>59. Include a condition which specifies the enhanced mitigation measures that would come into effect if the conditions requiring compliance with the construction noise and vibration standards are not met.</p>
<p>Uncertainty as to the extent and timing of noise mitigation measures for neighbouring dwellings, including timing of the construction of the proposed noise mitigation barriers.</p>	<p>We recommend a standalone condition is included to ensure the further investigation of neighbouring dwellings to determine whether Category A noise criteria would be exceeded and whether acoustic treatment is required to be undertaken. The condition should specify at what stage the noise investigation should be undertaken and by whom.</p> <p>We support KiwiRail's proposed amendments to Condition 72 that require the outcome of the</p>	<p>60. Include a condition requiring KiwiRail to undertake further investigation to determine whether the construction Category A noise criteria would be exceeded at nearby dwellings and whether acoustic treatment is required. The investigation shall be undertaken prior to construction and the results included in the CNVMP. The investigation should be undertaken by a suitably qualified person.</p> <p>61. Include a condition: A noise barrier that meets the design criteria [to be advised by KiwiRail – see recommendation] is built in the specified locations [to</p>

Description	Recommendation	Condition requirements
	<p>investigations and the acoustic treatment necessary to be included in the ONVMP.</p> <p>We recommend that KiwiRail provides further information regarding the design criteria that will be applied (including how height is to be determined) when designing the noise barriers, including criteria that will be applied where nearby dwellings are on elevated ground.</p> <p>We recommend a condition is added to specify that a noise barrier is in place prior to construction. That barrier could be a temporary or a permanent one, as long as it achieves the criteria to be advised by KiwiRail.</p>	<p>be confirmed] prior to the construction of the perimeter road.</p>
<h2 style="text-align: center;">Section 9.4 Visual and landscape</h2>		
<p>There are likely to be long term moderate-high to high adverse effects on visual amenity and landscape character arising from the construction staging and operation of the Freight Hub.</p>	<p>We recommend that KiwiRail adopt the mitigation measures recommended in the LVA.</p>	<p>62. Include a new condition that: The landscape mitigation measures set out in Section 7 of Technical Report E: LVA shall be implemented by KiwiRail prior to opening of the Freight Hub.</p>
<p>There will be a fundamental change to the predominantly rural character of much of the designation extent. This is downplayed in KiwiRail's landscape and visual assessment, with an overreliance placed on the NEIZ design guide to achieve</p>	<p>We recommend including a condition requiring KiwiRail to prepare a design framework to inform the development of the detailed design of the Freight Hub. Ms Whitby and Ms Linzey have suggested the following matters for which design outcomes will be required to be developed, which we support, noting that a comprehensive process involving KiwiRail and other parties will</p>	<p>63. Include a condition: Freight Hub Design Framework:</p> <ul style="list-style-type: none"> a) The Requiring Authority shall prepare a Design Framework no later than three months prior to commencement of detailed design that includes the design principles and design outcomes that the design, construction and operation of the Freight Hub is to achieve.

Description	Recommendation	Condition requirements
<p>appropriate landscape and visual integration.</p>	<p>be required to develop a full set of principles and outcomes:</p> <ul style="list-style-type: none"> a) A whole of landscape approach to appropriately integrate the Freight Hub with its immediate and wider landscape setting. b) Maximise beneficial outcomes for natural character, rural character and visual amenity, to complement a high quality landscape. c) Maintain and/or enhance amenity values in the wider landscape, including the sensory appreciation of the rural landscape (including but not limited to visual aspects). d) The design of noise mitigation structures, to have particular regard to visual amenity, outlook and privacy, and landscape character. e) The integrated lighting design, to have particular regard to visual amenity, landscape character and natural darkness of the night sky. f) Building and structure design to reflect the rural character of the context. g) Community identity and place, including opportunities to reflect the context of place and/or cultural and historical values of place. 	<ul style="list-style-type: none"> b) The Requiring Authority shall invite and make provision for the CLF and mana whenua to actively participate in the development of the Design Framework. c) The detailed design of the Freight Hub must achieve the design principles and design outcomes contained in the Design Framework. d) Any management plan required by conditions of this designation, or outline plan prepared and submitted in accordance with section 176A of the RMA, must demonstrate compliance with the design framework. e) The Design Framework shall include (but not be limited to) [a set of agreed principles and outcomes]. <p>64. Modify Condition 48 to add: The Landscape Plan shall implement the design principles and design outcomes contained in the design framework.</p> <p>65. Modify Condition 50 to include further matters that the Landscape Plan should address:</p> <ul style="list-style-type: none"> a) Describe how permanent works, such as earthwork areas, are integrated into the surrounding landscape and topography, and the suitability of slopes for planting where proposed planting is located. b) Describe and map any proposed new landscape planting.

Description	Recommendation	Condition requirements
	<p>h) Pedestrian and cycle access around the site and to/from the Bunnythorpe community area.</p>	<p>c) Planting of noise mitigation walls, to include taller species at the wall edge, lower growing shrubs and groundcovers at the exterior edge (to provide an impression of open space);</p> <p>d) Any proposed new landscape or visual amenity planting shall be implemented as soon as reasonably practicable so that it provides effective visual mitigation prior to construction of buildings within the designation.</p> <p>e) Show connections between the designation footpaths and cycleways and local linkages or paths outside the designation.</p> <p>f) Take into account the outcomes of consultation with the community (including, but not limited to, landowners within and adjacent to the designation), mana whenua, Palmerston North City Council, Horizons Regional Council and Waka Kotahi NZ Transport Agency.</p> <p>g) Demonstrate awareness of, and respect of sites of cultural and historical significance.</p> <p>h) Describe additional mitigation opportunities for natural character.</p> <p>i) Show and describe mitigation to address visual amenity effects between Richardson's Line to 873 Roberts Line, properties along Te Ngaio Road east of Maple Street, Maple</p>

Description	Recommendation	Condition requirements
		<p>Street, 163 Clevely Line west, and residential properties directly alongside the NIMT.</p> <ul style="list-style-type: none"> j) Show and describe how stormwater ponds will be designed to appear as natural features and to enhance local biodiversity as far as practicable. k) Demonstrate how the Freight Hub will be integrated with its surrounding context, including but not limited to the following: <ul style="list-style-type: none"> i. How noise mitigation structures will be designed to mitigate effects on landscape character and visual amenity. ii. How planting will enable an impression of open space (characteristic of rural character) when viewed from outside the Freight Hub,. iii. How Freight Hub buildings will complement existing rural architecture. <p>66. Include a condition: Buildings within the Freight Hub shall be setback at least:</p> <ul style="list-style-type: none"> a) 30 metres from Richardsons Line; b) 8 metres from Railway Road and Roberts Line; c) 40 metres from the new perimeter road.
<p>It is not clear whether mitigation planting can be established early enough to provide mitigation during the site establishment and</p>		<p>67. Include a condition: A Planting Establishment Plan must be prepared prior to commencement of construction and must:</p>

Description	Recommendation	Condition requirements
<p>construction phase. The practicalities of early planting are likely to be particularly problematic on the eastern boundary with Sangsters Road.</p>		<ul style="list-style-type: none"> a) Require all proposed new landscape or visual amenity planting (other than planting along Sangsters Road) to be completed at least three (3) years in advance of bulk earthworks associated with construction of the Freight Hub floor. b) Require all proposed new landscape or visual amenity planting along Sangsters Road to be completed prior to bulk earthworks associated with construction of the Freight Hub floor commencing. c) Specify that all proposed new planting must commence in the first planting season following the completion of each stage, or discrete location of, construction works. d) Specify as a minimum that trees should reach a height at maturity of 10 metres and shrubs to reach a minimum height at maturity of 6 metres, except where these would create adverse effects to the National Grid within the designation. e) Specify that all planting must achieve at least an 80 percent canopy cover, with the majority of tall tree species reaching a height of 10 metres within 10 years of being planted.¹

¹ Paragraph 6.64 and 6.82 Technical Report E

Description	Recommendation	Condition requirements
		<ul style="list-style-type: none"> f) Specify plant size (at time of planting), numbers of each species, plant location and plant spacings. g) Specify planting methods, including ground preparation, mulching and any trials. h) Specify plant and animal pest management strategies. i) Specify growing conditions that will ensure the successful establishment, growth and on-going viability of planting. j) Describe how all planting and fencing will be maintained to a high standard by KiwiRail at all times to complement a high quality image (including, but not limited to, weed control, removal of litter and vandalism, maintenance of plants to ensure clear pathways and sightlines, replacement of dead plants). <p>68. Include a condition: All planting shall be undertaken in accordance with the Planting Establishment Management Plan.</p> <p>69. Include a condition: The Planting Establishment Management Plan shall be submitted to the Council for technical certification.</p>
Section 9.5 Cultural values		
No cultural values assessment is available to inform the assessment of the NOR in relation to effects on	In our opinion the design and mitigations should be informed by a cultural values assessment or an alternative means of guidance from tangata whenua. We also consider that the design and	70. Modify Condition 26 to state that preparation of the mana whenua framework shall commence no later than three months after the Requiring Authority's decision on the notice of requirement and must be

Description	Recommendation	Condition requirements
<p>Māori cultural and traditional relationships with the area.</p>	<p>mitigations once developed should be assessed by tangata whenua, potentially through a cultural impact assessment. Both of these assessments need to be undertaken by mana whenua or a person endorsed by mana whenua. We also note that each mana whenua entity may wish to prepare their own CVA and CIA rather than participate in a single combined assessment.</p> <p>We are of the view that we should not recommend conditions requiring CVAs and CIAs to be developed because such conditions would need to be supported by iwi submitters. CVAs would need to be either undertaken or endorsed by mana whenua (KiwiRail cannot independently evaluate the effects on cultural values when they do not hold the knowledge of what those values are). This would be consistent with partnership arrangements requested by iwi submitters.</p> <p>We support the appointment of kaitiaki as cultural monitors, and consider this would be best addressed through the Mana Whenua Engagement Framework proposed by KiwiRail. We recommend that the Mana Whenua Engagement Framework should be prepared well in advance of commencement of construction.</p>	<p>completed within nine months, or three months before detailed design or any works commencing, whichever is the earlier.</p> <p>71. Include a new condition: that the mana whenua engagement framework shall be implemented when undertaking all works and activities authorised by the designation.</p> <p>72. Amend condition 32 to include new clauses:</p> <ul style="list-style-type: none"> a) Details of contractor training regarding the skills necessary to be aware of the possible presence of cultural or archaeological sites or material; b) General procedures following the accidental discovery of possible archaeological sites, kōiwi tangata, wāhi tapu or wāhi taonga, including the requirement to immediately cease enabling or construction works activities in the vicinity of the discovery and the requirement to notify parties including, but not limited to, Heritage New Zealand Pouhere Taonga; c) Procedures for the custody of taonga (excluding kōiwi tangata) or material found at an archaeological site. <p>73. Modify Condition 32 to add the following words, or words of similar effect: In the event of kōiwi tangata being discovered, work must cease immediately in the vicinity of the remains and mana whenua,</p>

Description	Recommendation	Condition requirements
	<p>We recommend that mana whenua are invited to contribute to the development of the Design Framework and the Landscape Plan and that this is included in the conditions.</p> <p>We agree that the proposed accidental discovery protocol in Condition 31 and 32 is an appropriate mechanism to address iwi concerns about accidental finds. In the event that kōiwi tangata or taonga are discovered, we recommend amendments to Condition 32.</p>	<p>Heritage New Zealand Pouhere Taonga, New Zealand Police and the Council must be contacted.</p>
<p>Iwi and other submitters have identified a wide range of potential impacts on their values through submissions and call for a partnership approach to development and decision making on the Project.</p>	<p>We recommend that KiwiRail establish an Iwi Working Group to ensure effects are managed in a culturally appropriate manner, as proposed by Rangitāne.</p>	<p>74. No additional conditions proposed.</p>
<p>Iwi are concerned about the potential adverse effects on whenua and wai from sediment discharges and erosion, stormwater discharges (on water quality and quantity), freshwater ecology, landscape, design, flooding and the relationship of mana whenua and their culture and traditions with land, water, sites, wāhi tapu and other taonga.</p>		

Description	Recommendation	Condition requirements
<p>The high level of modification, in particular the culverting of existing watercourses, appears to conflict with the objective of the NPS FM in terms of prioritising the values of waterbodies and freshwater ecosystems and is likely to be inconsistent with Policy 1 in relation to giving effect to Te Mana o Te Wai.</p>	<p>We consider the significant loss of waterways with undetermined natural values will undermine Te Mana o te Wai.</p> <p>This issue will need to be addressed through the regional consenting process.</p>	<p>75. No additional conditions proposed.</p>

Section 9.6 Ecology

<p>There are potential effects on fauna that have not been assessed. During construction there could be effects on fauna through disturbance, injury and mortality. During operation, there could be effects from noise, lighting or vibration on terrestrial fauna values.</p>	<p>We recommend that no works should be undertaken until full ecological surveys have been undertaken of the entire designation extent, in order to fully understand the values of the site and confirm the presence or absence of ecological values.</p> <p>An ecological management plan should be prepared, which demonstrates how ecological effects will be managed (see below).</p> <p>Following the completion of the site surveys an Ecology Management Plan (EMP) should be prepared for certification. The EMP should be comprehensive and should address all affected habitat and fauna values in recognition of their amenity, cultural and intrinsic values (One Plan Policy 6-1 (b) and (c)). This should be prepared with mana whenua to enable them to contribute to the appropriate management of</p>	<p>76. Include a condition: Prior to any works commencing a full and complete assessment of the ecological values of the site shall be undertaken in accordance with best practice methods to identify the extent and values of the terrestrial, freshwater and wetland habitats of the site. This shall include, but not be limited to:</p> <ul style="list-style-type: none"> a) Stream classification, extent and values, including habitat and ecosystem function assessments, within the site and within the receiving environment. b) Surveys of streams to identify any erosion prone areas to provide a baseline state against which to measure change. c) Wetland extent and values, in accordance with Schedule F and NPS FM definitions. d) Vegetation assessment to identify extent and values, including both habitat values and
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Description	Recommendation	Condition requirements
	<p>taonga species and in line with the intention of Te Mana o te Wai.</p>	<p>presence of Threatened or At Risk Species, and against the criteria within Schedule F of the One Plan.</p> <ul style="list-style-type: none"> e) Lizard surveys to identify species present and habitat values. f) Bat surveys, if the vegetation assessment identifies potential temporary roost trees. g) Bird surveys, to identify species likely to use the site on a temporary or permanent basis, including specifically assessment of wetland birds if wetlands are identified. h) Freshwater fauna surveys to identify the presence of fauna within the streams on site, upstream of the site and within the receiving environment downstream of the site. <p>77. Water quality including, but not limited to, parameters related to urban and industrial run off, suspended and deposited sediment and presence of periphyton and macrophytes.</p> <p>78. Include a condition: An ecological management plan shall be prepared and submitted to the Council for certification prior to any works being undertaken on the site.</p> <p>79. The objective of the EMP is to address the potential adverse effects of the Freight Hub on ecological and biodiversity values.</p> <p>80. The EMP shall be prepared in consultation with mana whenua and must include:</p>

Description	Recommendation	Condition requirements
		<ul style="list-style-type: none"> a) A summary of the ecology and biodiversity values and effects of the Freight Hub b) How adverse effects on these habitats and fauna values will be managed c) Identification and management of taonga species d) Mitigation requirements for works e) Induction procedures for site staff f) Describe the details of any ecological or biodiversity offsetting or compensation and any associated management requirements <p>81. Monitoring, including cultural monitoring</p>
<p>There may be significant adverse effects on the values of the waterbodies within the site, including substantial loss of natural form of streams and loss of wetlands, which will require mitigation and / or offsetting or compensation to address these effects.</p>	<p>The detailed design of the Freight Hub should avoid and minimise effects on streams and wetlands to the extent practicable.</p> <p>For those effects that are demonstrably unavoidable, the effects management hierarchy defined in the NPS FM 2020 should be adhered to.</p> <p>These effects will be specifically considered through the regional consenting process. The design of the project may need to be altered to avoid the effect in the first place, or alternative methods employed (that are not within the current proposals), to be able to obtain those consents.</p>	<p>82. No additional conditions proposed.</p>
<p>During construction, there is the potential for discharges of sediment</p>	<p>KiwiRail have stated they will manage these effects through an erosion and sediment control</p>	<p>83. Include a condition that requires the preparation of an Erosion and Sediment Control Plan, including the</p>

Description	Recommendation	Condition requirements
<p>laden water to enter the receiving environment (streams and/or wetlands). Suspended sediments can affect water clarity and be an irritant to fauna, while deposited sediments can alter in-stream habitat and communities.</p>	<p>plan (either as a standalone document or through the Stormwater Management Framework) with reference to best practice standards but this is not addressed in the proposed conditions.</p> <p>These effects will be specifically considered through the regional consenting process. The design of the project may need to be altered to avoid the effect in the first place, or alternative methods employed (that are not within the current proposals), to be able to obtain those consents.</p>	<p>requirements for its content to be aligned with best practice.</p>
<p>There are uncertainties as to the feasibility of fish passage through the extensive culverts proposed.</p>	<p>We consider it is premature to attribute a positive benefit to fish passage from the future necessary compliance with the NES FW, given the challenges the design presents for meeting the New Zealand Fish Passage Guidelines.</p> <p>The potential effects on fish passage will be addressed at the regional council consenting stage, recognising that the design of the project may need to be altered to avoid the effect in the first place, or alternative methods employed (that are not within the current proposals), to be able to obtain those consents.</p>	<p>84. No additional conditions proposed.</p>
<p>No protection is in place for wildlife within existing habitats in the event of vegetation clearance.</p>	<p>Recommendations to manage effects on fauna during construction have been identified in the Ecology Report and should be adopted. In the event that some works can take place prior to</p>	<p>85. Include a condition: In the event of discovery or any 'At-Risk' or 'Threatened' flora or fauna (as defined by the Department of Conservation's New Zealand Threat Classification System) within the Designation that is not specifically addressed by the EMP, the</p>

Description	Recommendation	Condition requirements
	<p>the regional consents being sought, the Wildlife Act 1953 requirements will apply.</p> <p>A condition should be included to require development of a At Risk or Threatened flora and fauna discovery protocol prior to works commencing.</p>	<p>Requiring Authority must determine a course of action:</p> <ul style="list-style-type: none"> a) Based on the advice of an independent, suitably qualified and experienced ecologist; b) With reference to the Ecological Management Plan framework; and c) Taking into account the outcomes of any consultation with mana whenua and the Department of Conservation. <p>86. The Requiring Authority must provide written advice to the Responsible Officer(s) setting out the course of action determined in accordance with clause (a).</p>

Section 9.7 Natural character

<p>Mitigation measures (such as construction of stormwater management ponds and “recreation and naturalisation” of a channel in place of the northern stream) have been mis-identified as positive effects of the Freight Hub (on the natural character of rivers and their margins and wetlands).</p> <p>Total loss of some sections of stream, extensive culverting of the majority of other streams and constructed conveyance of the northern stream, along with potential removal of</p>	<p>We recommend that KiwiRail revisit their categorisation of natural character effects as moderate positive and confirm how they anticipate providing for mitigations and potentially offsetting that is likely to be required to obtain regional council consents.</p>	<p>87. Natural character effects will be fully addressed through regional resource consents.</p>
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Description	Recommendation	Condition requirements
<p>natural wetlands will not preserve the existing natural character. Those adverse effects on natural character are not avoided or mitigated by the construction of artificial water bodies or other measures, therefore, significant additional mitigation or offsets are likely to be required. It is unlikely that these adverse effects will be able to be mitigated or offset within the designation boundary.</p>		
<h2 style="text-align: center;">Section 9.8 Stormwater management and flooding</h2>		
<p>Parts of the Freight Hub lie within a Flood Prone Area and there is potential for increased risk of flooding both upstream and/or downstream of the site, and erosion effects to downstream watercourses.</p> <p>There is potential for deterioration of water quality in receiving systems, due to discharge of contaminated runoff and increased temperature of runoff.</p> <p>Integration of the stormwater management system with existing networks is required.</p>	<p>We recommend that the requiring authority implements the Stormwater Management Framework as described in Appendix A and B of KiwiRail's Technical Report G - Stormwater Flooding Assessment and that this is included as conditions. The Framework is necessary to ensure that the stormwater design integrates effectively with the Council's stormwater management approach in the NEIZ.</p> <p>The Stormwater Management Framework conditions we recommend should incorporate and replace the relevant conditions proposed by KiwiRail (Conditions 33 – 40).</p>	<p>88. Include a condition: A Stormwater Management Framework must be prepared to address, as a minimum, the matters in Appendix B and in accordance with the assumptions set out in Appendix A of Technical Report G – Stormwater Flooding Assessment.</p> <p>89. Include a condition: The Council, mana whenua and the Horizons Regional Council must be consulted in the development of the Stormwater Management Framework.</p> <p>90. Include a condition: The Stormwater Management Framework must be updated to reflect the requirements of regional council consents. The Final Stormwater Management Framework (with any amendments required by regional consents) must be submitted with the first Outline Plan.</p>

Description	Recommendation	Condition requirements
		91. Modify Condition 9 to add that the Outline Plan shall include a report describing how the Stormwater Management Framework has been developed and integrated into the Freight Hub design, including how recommendations and feedback from the Council, mana whenua and Horizons Regional Council have been addressed.
During construction there is potential for adverse effects from erosion of exposed soils and discharge of sediment-laden water, impacting on downstream receiving environments and resulting in adverse effects on aquatic life and habitat.	See ecology section for recommendation to prepare an erosion and sediment control plan. This issue will be addressed in detail through the regional consenting process.	92. See ecology section for condition regarding preparation of an Erosion and Sediment Control Plan.
Section 9.9 Lighting		
Updated modelling results show that glare to residential dwellings will be significant. Of the 32 dwellings considered, only three meet the identified curfew limits and 50% don't meet every day (non-curfew) limits for an A2 low district brightness (rural) environment. The proposed acoustic barriers will not mitigate glare. Landscape and visual effects of lighting have not been assessed.	KiwiRail should submit the final lighting design for expert peer review and certification. The detailed lighting design should: <ul style="list-style-type: none"> a) Demonstrate reduction in glare to meet curfew limits b) Satisfy R12A.4(f), road user glare effects via Threshold Increment calculations in accordance with recommendations of AS/NZS4282:2019 c) Include details of under carriage lighting and low level security lighting 	93. Include a condition: The Requiring Authority shall prepare and submit to Council a Lighting Design Plan that: <ul style="list-style-type: none"> a) Includes details of low-level security lighting. b) Includes details of under carriage lighting. c) Identifies locations where selective dimming of floodlights will be required. d) Demonstrates where compliance with the skyglow condition will be achieved. e) Incorporates where appropriate, the International Dark-Sky Associations recommendations on good lighting.

Description	Recommendation	Condition requirements
	<p>d) Consider selective dimming of offending floodlights to reduce their brightness.</p> <p>To ensure that obtrusive lighting effects are adequately mitigated, we recommend that the lighting design is required to comply with AS/NZS 4282:2019, Zone A2 limits.</p>	<p>f) Specifies design requirements for buildings to mitigate any potential roof glare to the south and particularly the PN Airport Air Control Tower.</p> <p>g) Demonstrate that glare to the PN Airport Control Tower resulting from light emitted from the Freight Hub meets the AS/NZS4282 limits for Zone A2.</p> <p>h) Meets the road user glare effects standards in R12A.4(f) of the District Plan using the Threshold Increment calculations in accordance with recommendations of AS/NZS4282:2019.</p> <p>i) Specifies lighting systems that turn off operational lighting when not required.</p> <p>94. Include a condition: The lighting design must achieve compliance with AS/NZS 4284:2019 – Control of the obtrusive effects of outdoor lighting, Zone A2 limits.</p> <p>95. Include a condition: The Requiring Authority shall implement the Lighting Design Plan.</p> <p>96. Modify Condition 63. Add wording to the following effect: <i>and AS/NZS 4282:2019 – Control of the obtrusive effects of outdoor lighting, Zone A2 limits.</i></p> <p>97. Modify Condition 9 by adding a clause: Confirmation that a CAA NZ Part 77 Determination has been obtained.</p>

Description	Recommendation	Condition requirements
		<p>98. Adopt Condition 63, but add a requirement to comply with AS/NZS 4282:2019. The last sentence can be added to along the following lines: <i>and AS/NZS 4282:2019 – Control of the obtrusive effects of outdoor lighting, Zone A2 limits.</i></p>
<p>Proposed acoustic barriers will provide some mitigation of spill light beyond the site boundaries and spill light to residential dwellings will be to acceptable levels for a rural environment.</p>	<p>The following lighting standard should be adopted in the conditions: AS/NZS 4284:2019 – Control of the obtrusive effects of outdoor lighting, Zone A2 limits (for Rural, low district brightness).</p>	<p>99. See above</p>
<p>Skyglow effects will be to acceptable levels for a rural environment.</p>	<p>We recommend that KiwiRail adopt the following measures to reduce skyglow where practicable:</p> <ul style="list-style-type: none"> a) Use lights with 3000K colour temperature LEDs in lieu of the proposed 4000K LED's, this can be expected to reduce the blue light content within the white light by up to 25%. b) Minimise the light projected at or above the horizontal, ideally no lights should be tilted above the horizontal and no lights should project light above the horizontal. c) Do not overlight, only provide the lighting level required for the user/task. d) Turn off lights when not required. <p>We recommend appropriate lighting control systems are incorporated into the lighting design</p>	<p>100. Include a condition: Skyglow caused by artificial lighting shall have a Sky Glow Upward Light Ratio of no greater than 0.003, calculated in accordance with AS/NZS4282:2019.</p>

Description	Recommendation	Condition requirements
	so that lights are turned off when not required for operational safety.	
Potential adverse effects from headlight vehicle sweep on dwellings.	The Construction Traffic Management Plan and Operational Traffic Management Plan conditions should be amended to require consideration of the effects of headlight sweep on residential dwellings and mitigation of any identified adverse effects.	<p>101. Modify Condition 57: Include a further clause: Consider if headlight sweep onto the windows of a residential dwelling bedroom is likely to occur because of construction traffic movements within the site and when exiting the site, if so, provide details for measures to mitigate its effects.</p> <p>102. Modify Condition 67, include a further clause: Consider whether headlight sweep onto the windows of a residential dwellings bedroom is likely to occur as a result of night-time traffic movements within the site and when exiting the site. If so, provide details for measures to mitigate its effects.</p>
Potential adverse effects of lighting on navigation for Palmerston North Airport.	<p>To avoid adverse lighting effects on traffic controller observations from the PN Airport Control Tower the lighting design must demonstrate that glare to the tower will meet the AS/NZS4282 limits for Zone A2. This should be demonstrated through the submitted Lighting Design Plan.</p> <p>KiwiRail to obtain a CAA NZ Part 77 determination and provide documentation to demonstrate this has been obtained with the Outline Plan.</p> <p>Roof glare should be managed to ensure there are no adverse lighting effects on traffic</p>	<p>103. Include a condition: Glare to the PN Airport Control Tower resulting from light emitted (including artificial light and glare from buildings and structures) from the Freight Hub must meet the AS/NZS4282 limits for Zone A2.</p>

Description	Recommendation	Condition requirements
	controller observations from the PN Airport Control Tower.	
Effects of construction lighting at night.	We recommend that a Construction Lighting Management Plan is prepared, which addresses potential effects from construction vehicle headlight sweep, security lighting and working lights. The standard to be adopted is AS/NZS 4282:2019 Zone A2 limits. The plan should be included in the Construction Management Plan.	104. Modify Condition 53(e) by replacing with the following text: a construction lighting management plan to address potential effects from construction vehicle headlight sweep, security lighting and working lights in order to comply with AS/NZS 4282:2019 Zone A2 limits.
Section 9.10 Air quality		
<p>KiwiRail's non-quantitative assessment approach is not specific enough about the nature, scale and location of the proposed Freight Hub activities relative to the locations of sensitive receptors. This affects the level of confidence in the conclusions and recommended mitigation proposed by KiwiRail.</p> <p>Air discharges associated with the operation of the Freight Hub are likely to include dust from yard operations, particularly from vehicle traffic or from spills of dusty materials, etc. The Freight Hub facilities include a log handling yard, which could accumulate dusty materials. It is</p>	<p>We recommend that the CMP is amended to be more specific about the requirements for dust management during construction. We note Ms Ryan's recommendations for construction dust management and monitoring.</p> <p>Ms Ryan recommends the scope of the Operational Dust Management Plan should be broadened to address all potentially adverse discharges to air (i.e. particulates and odour), not just dust. However we do not consider there is scope to widen this in the current NOR process (as it is a regional council matter and KiwiRail have not volunteered a condition that addresses air quality more widely).</p> <p>As set out in KiwiRail's proposed scope for the Operational Dust Management Plan, we recommend that the condition includes a mechanism so that complaints about dust</p>	<p>105. Modify Condition 53(d) to incorporate the following into the Construction Management Plan requirements:</p> <ul style="list-style-type: none"> a) Requiring real-time continuous monitoring of PM₁₀; b) An action trigger value for the PM₁₀ monitoring of 150 µg/m³ as a 1-hour average; c) On-site wind direction and strength monitoring; and d) Works to cease when winds exceed 10 metres per second and blowing towards the dwelling and/or if winds exceed 7 metres per second and a dwelling is within 100 metres downwind. <p>106. Modify Condition 76: Operational Dust Management Plan: The objective of the Operational Dust Management Plan is to detail the mitigation and ongoing measures to control dust effects from the operation of the Freight Hub <u>in order to minimise dust</u></p>

Description	Recommendation	Condition requirements
<p>unclear if there will be any unsealed areas.</p> <p>The construction operations have the potential for dust discharges, including from earthworks such as cut and fill operations, bund construction and vehicle movements.</p> <p>Submitters are concerned at the potential for contamination of roof-sourced water supply from airborne pollutants.</p>	<p>inform reviews of the Operational Dust Management Plan.</p>	<p><u>exposure to protect human health and amenity, specifically that of sensitive receptors. The ODMP must demonstrate that there shall be no noxious, dangerous, objectionable or offensive dust to the extent that the discharge causes an adverse effect at or beyond the site boundary.</u></p> <p>107. Amend Condition 78: complaints shall be recorded and feedback provided on how issues raised in complaints have been resolved.</p> <p>108. Add a condition: The Operational Dust Management Plan shall be submitted to the Council for certification by an appropriate qualified and experienced professional.</p> <p>109. Modify Condition 80 so that the review of the ODMP is required to take into account any complaints received.</p>
<p>The emissions from land transport, diesel trains and heavy vehicles, have the potential to cause effects to air quality, principally from PM10, PM2.5 and NOX emissions. There may also be effects of odour from diesel combustion.</p>	<p>On the basis of Ms Ryan's advice, we understand that operational effects on air quality should be at an acceptable level to avoid significant adverse effects on health and amenity, provided that:</p> <ul style="list-style-type: none"> a) there is adherence to the Concept Plan and landscape plans, and b) activities that will result in emissions to air are managed via an Operational Air Quality Management Plan (OAQMP). 	<p>110. No additional conditions proposed.</p>

Description	Recommendation	Condition requirements
	<p>We agree with Ms Ryan that an OAQMP should be developed, however we do not consider there is scope to widen the Operational Dust Management Plan to include all air quality emissions in the NOR process (as it is primarily a regional council matter and KiwiRail have not volunteered a condition that considers air quality more widely).</p> <p>This issue may also be addressed through the regional council consenting process.</p>	
Section 9.11 Social impacts		
<p>There will be adverse effects on residents way of life and amenity during the long construction phase, due to a reduction in accessibility to the city for jobs, education and recreation, and adverse social impacts relating to noise, vibration and visual effects.</p> <p>There is significant uncertainty as to the scale and timing of social effects.</p>	<p>We recommend the complaints register condition is amended so that that it is an ongoing requirement of site management.</p> <p>We recommend that amendments are made to the CLF conditions to specify:</p> <ul style="list-style-type: none"> a) who should be invited to partake in the CLF; b) how KiwiRail takes on board (and demonstrates that it has responded to) the feedback provided by the CLF, c) the length of time that the group is active, d) the regularity of meetings (and how these might differ at different periods of the Freight Hub's development), 	<p>111. Modify Condition 22 to specify that the complaints register will be maintained until at least five years after the full development of the Freight Hub.</p> <p>112. Include a condition specifying the list of organisations or sectors of the community that shall be invited to partake in the CLF (including but not limited to youth representatives, a Bunnythorpe School staff member or student, representatives of the retired community in Bunnythorpe, individuals from each of the streets adjacent to the Hub, and mana whenua representatives).</p> <p>113. Include a condition: that the CLF shall be invited to input into development of the design framework and any urban or landscaping plans, including in respect of any staged development and the timing and nature of mitigation works proposed.</p>

Description	Recommendation	Condition requirements
	<p>e) the scope of matters/management plans/other documents that the CLF is engaged to consider,</p> <p>f) that the CLF is commissioned to provide feedback on the effectiveness of management plans once the Freight Hub is operational.</p> <p>We recommend that the lapse period is reduced from fifteen to ten years, to reduce uncertainty for the community.</p>	<p>114. Modify Condition 14 to add: The CLF shall be provided with an opportunity to review and give feedback on each 'stage' of construction and operation.</p> <p>115. Modify Condition 12 to require the CLF to be maintained in perpetuity or until the community representatives (by majority) confirm that the site operation is in its final form and that the matters that the CLF has been concerned to have been considered and responded to by KiwiRail.</p> <p>116. Modify Condition 13: Once the Freight Hub commences operations, the CLF shall meet annually, but may meet more or less frequently where the CLF determines this to be necessary / appropriate.</p> <p>117. Include a condition that provides for the CLF to review the implementation of management plans and for KiwiRail to describe how it has addressed any feedback provided.</p> <p>118. Include a condition (or modify Condition 19) requiring KiwiRail to provide opportunity for CLF consultation and feedback during preparation of the Construction Engagement Plan.</p>
<p>Once in use, the 24 hour/7 day a week operating period of the Freight Hub and resulting noise, vibration, lighting, and traffic effects will impact on the amenity of neighbouring residents and subsequently their way of life. Some</p>	<p>See recommendations for development of a design framework in the Landscape and Visual effects section.</p>	

Description	Recommendation	Condition requirements
households (those in close proximity) are likely to experience high negative impacts on their way of life.		
There may be sub-communities which could be more adversely affected and which require specific mitigation, but this is not readily apparent from the high-level assessment of social effects.	See recommendations for composition of the CLF, to include particularly affected sub-communities.	
There will be a significant change to the community character, from what is currently described as a quiet rural-residential community, to one which is much more industrial in nature. There may be a loss of community cohesion if displaced residents leave the community.	See recommendations for development of a design framework in the Landscape and Visual effects section.	
Loss of community connectivity will result from changes to commuting routes and travel times reducing ease of access. There may be some severance effects.	See recommendations for the shared path and perimeter road in the Transport effects section.	
Section 9.12 Economic		
The Freight Hub does not demonstrate efficient connections for freight movement with the NEIZ and the airport which has the potential to undermine the desired	We recommend a condition requiring a NEIZ users group to be established, with the purpose of determining the appropriate means to provide for safe and efficient freight connections between the NEIZ and the Freight	119. Possible condition, subject to support from stakeholders and KiwiRail.

Description	Recommendation	Condition requirements
<p>economic outcomes envisaged for the freight and distribution sector.</p> <p>The Freight Hub may not connect efficiently with the future strategic road freight network, and in particular, the proposed regional freight ring road.</p> <p>There is a risk that poor integration between the Freight Hub and the future strategic road freight network will not achieve a safe and efficient road transport network that underpins a modal shift to rail for freight journeys. It has the potential to cause disruption to the existing network, undermining existing economic activity.</p> <p>Employment opportunities during construction may be overstated, but generation of long-term economic investment and growth will be significant.</p>	<p>Hub, and for the outcomes of consultation with that user group to be used to inform development of the RNIP and the detailed design. This recommendation will be subject to support for it from NEIZ stakeholders.</p> <p>The recommendations on effects on the transport network are also relevant to addressing economic effects.</p>	
<p>The lack of certainty of delivery may have an adverse economic effect on other organisations, limiting their ability to plan investments that are dependent on the Freight Hub.</p>	<p>We recommend that the lapse period is reduced from fifteen to ten years, to reduce uncertainty and subsequent non-realisation of economic benefits.</p>	<p>120. Modify Condition 4: The designation shall lapse if not given effect to within ten years from the date on which it is included in the District Plan.</p>

Description	Recommendation	Condition requirements
Section 9.13 Infrastructure and network utilities		
<p>There could be adverse effects on existing network utilities, subject to further design details being shared and mitigation agreed with the affected network utility operators.</p>	<p>We agree with PowerCo that the conditions they request to provide for the safe ongoing operation of their assets are reasonable and generally support adding the conditions proposed by PowerCo.</p> <p>However, PowerCo have also requested that these assets are relocated outside the designation and that this is a condition on the designation. Given that this appears to be an operational relationship issue, we suggest this is a matter best resolved directly between KiwiRail and PowerCo.</p> <p>We recommend that the extent of designation should be revisited following construction, and that KiwiRail should consider relinquishing any areas which are not required for the ongoing operation and maintenance of the Freight Hub, (or for ongoing mitigation, offsetting or compensation measures) in particular where this extends over public roads and the National Grid.</p> <p>It may also be useful to address these issues through development of an Electricity Transmission Management Plan, which would be prepared in consultation with Transpower and PowerCo. Transpower and PowerCo may wish to respond on whether an Electricity Transmission Management Plan would assist to address their</p>	<p>121. Include a condition: As soon as practicable following completion of construction of the Freight Hub, the Requiring Authority must review the extent of the area designated for the Freight Hub and identify any areas of designated land that are no longer necessary for the on-going operation or maintenance of the Freight Hub, or for on-going mitigation, offsetting or compensation measures required to address adverse effects of the Freight Hub and give notice to the Council in accordance with Section 182 of the RMA that those parts of the designation are no longer required. In particular, consideration should be given to the designation being withdrawn from land subject to other designations (including roads) and the National Grid.</p> <p>122. Include a condition: Enabling or construction works activities and structures must be designed and undertaken to comply with the New Zealand Code of Practice for Electrical Safe Distances (NZECP 34:2001).</p> <p>123. Include a condition: Any trees or vegetation shall be selected, located and managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003, including at full maturity.</p> <p>124. Include a condition: All works must be undertaken in accordance with the National Code of Practice for Utility Operators Access to Transport Corridors</p>

Description	Recommendation	Condition requirements
	<p>concerns and if so, what matters this plan should address.</p>	<p>(September 2016) or any approved update to the Code.</p> <p>125. Include a condition: Prior to the commencement of any site works, the requiring authority shall identify the location of existing overhead or underground network utilities (www.beforeudig.co.nz). Construction plans must identify the locations of the existing network utilities and appropriate physical indicators must be placed on the ground showing specific surveyed locations. All construction personnel, including contractors, are to be made aware of the presence and location of the various existing network utilities which traverse, or are in close proximity to the project area, and the restrictions in place in relation to those existing network utilities.</p>
<p>Existing Council services such as wastewater, drinking water and roading connections will be disrupted by construction of the Freight Hub, and KiwiRail will need to make alternative provision to ensure an appropriate level of service is maintained.</p>	<p>We recommend conditions to ensure that PNCC Infrastructure's plans to construct a future reservoir tank for security of supply adjacent to the existing bore and reservoir facility are protected.</p> <p>We recommend a condition to require continuity of service of any Council owned three waters infrastructure.</p>	<p>126. Include a condition: KiwiRail shall provide replacement land for water supply storage and treatment purposes and a replacement access to the water bore site. The site access must be located and designed to provide for access for heavy vehicles servicing the site. The site selection and alternative access shall be determined in consultation with the Council. The land shall be made available within a time frame consistent with meeting the Council's water upgrade project timeline.</p> <p>127. Include a condition: KiwiRail shall ensure the continuity of service and efficient relocation of any PNCC owned three waters infrastructure, that is</p>

Description	Recommendation	Condition requirements
		affected by the construction or operation of the Freight Hub.
Construction of the Freight Hub will require an alternative alignment to Council's planned off-road cycling connection between Feilding and Palmerston North.	We recommend that an appropriate temporary solution during construction and permanent solution on completion is provided to maintain connectivity along the shared pathway. Council wishes to preserve the connection for active transport users between both sides of the railway line. Our recommendation is that a connection across and preferably under the railway lines is provided for pedestrians and cyclists.	128. See the land transport conditions above for the shared path conditions. 129. Include a condition: The Requiring Authority shall construct a safe connection across the railway line for cyclists and pedestrians to replace the level crossing at Roberts Line that will be closed to construct the Freight Hub. The purpose of the connection is to provide safe cyclist and pedestrian access between the shared path and the perimeter road. The location of the crossing shall be within 200m of the level crossing that is to be removed, or at such other location as agreed between the Council and KiwiRail.
Submitters are concerned about adverse effects on connectivity to community facilities in Bunnythorpe.	See the recommended transport conditions. The submitter has also asked for KiwiRail to contribute to improving the aesthetics of Bunnythorpe. We think this takes the form of compensation and this is a matter which KiwiRail may wish to consider further in consultation with the Bunnythorpe community.	130. No additional conditions proposed.
Section 9.14 Rail design and operations		
The need for expansion to provide for future freight growth, which is unable to be accommodated at the		131. No conditions proposed.

Description	Recommendation	Condition requirements
<p>existing Tremaine Avenue Freight Yard.</p> <p>Future proofing of the Freight Hub design to provide for 1500m long trains.</p>		
<p>Insufficient evidence that health and safety risks have been identified and addressed through the Concept Plan design process.</p>	<p>We recommend that KiwiRail should undertake a safety in design process and document this, prior to detailed design.</p> <p>We recommend that a condition is placed on the designation requiring access to a water supply for firefighting purposes.</p>	<p>132. Include a condition: The Requiring Authority shall undertake and document a safety in design process and record this in the Outline Plan.</p> <p>The Safety in Design process should include the following components:</p> <ul style="list-style-type: none"> a) A risk assessment and development of a Risk Register b) A SiD workshop which meets KiwiRails Standard 14-STD-003-COM Programme SHE Management c) A Hazard and Operability Study and analysis of what happens when designs are operated outside of the design intent. <p>133. Include a condition: All new buildings within the Freight Hub shall be serviced with adequate water supply and access to that supply for firefighting purposes in accordance with the New Zealand Fire Service Firefighting Code of Practice SNZ PAS 4509:2008.</p>

Description	Recommendation	Condition requirements
Section 9.15 Urban development and land use		
<p>The location of the Freight Hub is well aligned with the Council's spatial plan for future development of the city, including in relation to industrial and residential growth.</p> <p>Whether the Freight Hub occupation of the NEIZ will result in a shortage of industrial land.</p> <p>The Freight Hub will result in the loss of productive land.</p> <p>Contribution of the Freight Hub to governmental goals for low carbon urban environments.</p>	<p>The alignment of the Freight Hub with the Council's land use strategy for the city is noted.</p> <p>We do not see the reduction in the supply of industrial land as a significant adverse effect of the NOR proposal.</p> <p>Palmerston North is somewhat constrained in that it is located on an alluvial plain with good quality soils all around it. Therefore, from an urban development point of view, it is hard to avoid city growth on versatile soils.</p> <p>We consider the Freight Hub proposal to be well aligned with national direction on rail transport and sustainability.</p>	<p>134. No additional conditions proposed.</p>
Section 9.16 Other topics		
<p><u>Effects associated with the storage, use and transport of hazardous substances</u></p> <p>There is potential for adverse effects on people, property or the environment from the storage, use or transport of hazardous substances within the Freight Hub.</p>	<p>In the absence of sufficient detail, we are unable to form any recommendations as to whether the potential adverse effects on people, property or the environment will be prevented or mitigated.</p>	<p>135. No additional conditions proposed.</p>

Description	Recommendation	Condition requirements
<p><u>Natural hazards (excluding flooding)</u></p> <p>There is potential for damage to people, property and the environment from a seismic event, because the Freight Hub is located in an active seismic area, in proximity to several significant faults with high recurrence intervals.</p>	<p>Due to the lack of detailed geotechnical information, we are not able to form a conclusion as to whether the risks of undertaking substantial earthworks, modification to waterways and the construction of buildings and structures on land prone to liquefaction can be avoided, remedied, or mitigated.</p> <p>Based on the information available it appears that the primary risk is to infrastructure and assets within the Freight Hub and that this risk will be addressed by KiwiRail through design and meeting Building Act obligations.</p>	<p>136. No additional conditions are proposed.</p>
<p><u>Contaminated land effects on human health</u></p> <p>There is potential for adverse effects on human health from the disturbance of contaminated land during soil disturbance or construction.</p>	<p>We support KiwiRail's proposed contaminated land condition that KiwiRail should undertake a DSI prior to commencement of construction in accordance with the NES CS and that it will manage any contaminated soil in accordance with the requirements of the NES CS.</p>	<p>137. Adopt Conditions 29 and 30.</p>
<p><u>Historic heritage and archaeology</u></p> <p>There is potential for earthworks and physical changes to the existing environment to adversely affect archaeological or historic heritage areas or items.</p>	<p>We recommend that Condition 32 is amended to provide for specific management of potential effects on historic heritage and archaeology.</p>	<p>138. Modify Condition 32 to include the following:</p> <ul style="list-style-type: none"> a) Details of contractor training regarding the skills necessary to be aware of the possible presence of cultural or archaeological sites or material; b) General procedures following the accidental discovery of possible archaeological sites, kōiwi tangata, wāhi tapu or wāhi taonga, including the requirement to immediately cease enabling or construction works

Description	Recommendation	Condition requirements
		<p>activities in the vicinity of the discovery and the requirement to notify parties including, but not limited to, Heritage New Zealand Pouhere Taonga;</p> <p>c) Procedures for the custody of taonga (excluding kōiwi tangata) or material found at an archaeological site;</p> <p>139. The following words, or words of similar effect, should also be inserted in the condition: In the event of kōiwi tangata being discovered, work must cease immediately in the vicinity of the remains and mana whenua, Heritage New Zealand Pouhere Taonga, New Zealand Police and the Council must be contacted.</p>
<p><u>Effects on groundwater</u></p> <p>There is potential for adverse effects on groundwater as a result of discharges of contaminants to land that may enter water.</p>	<p>KiwiRail has not undertaken a ground investigation so does not have any information on the potential for discharge to groundwater during construction or operation. This will be better understood once underlying conditions have been investigated and an appropriate methodology developed for construction and operation.</p> <p>Effects on groundwater will be addressed through detailed design and the regional council consents. The design of the project may need to be altered to avoid the effect in the first place, or alternative methods employed (that are not within the current proposals), to be able to obtain those consents.</p>	<p>140. No additional conditions are proposed.</p>

Tables for Draft Noise Limits (reproduced from Appendix A: s 42A Report: Noise and Vibration)

Refer to Appendix A for proposed conditions

Table WW: Construction Noise Limits

Time of Week	Time Period	L _{Aeq}	L _{Afmax}
Weekdays	0630 – 0730	55 dB	75 dB
	0730 – 1800	70 dB	85 dB
	1800 – 2000	65 dB	80 dB
	2000 – 0630	45 dB	75 dB
Saturdays	0630 – 0730	45 dB	75 dB
	0730 – 1800	70 dB	85 dB
	1800 – 2000	45 dB	75 dB
	2000 – 0630	45 dB	75 dB
Sundays and Public Holidays	0630 – 0730	45 dB	75 dB
	0730 – 1800	55 dB	85 dB
	1800 – 2000	45 dB	75 dB
	2000 – 0630	45 dB	75 dB

N.B. Shading indicates *night-time* hours.

Table XX. Vibration Criteria

Receiver	Location	Details	Category A PPV	Category B PPV
Occupied dwellings and schools	Inside the building	2000 – 0630	0.3 mm/s	1 mm/s
		0630 – 2000	1 mm/s	5 mm/s
Other occupied buildings	Inside the building	0630 – 2000	2 mm/s	5 mm/s
Unoccupied buildings	Building foundation	Vibration transient	5 mm/s	BS 5228-2 ² Table B.2
		Vibration continuous		50% of BS 5228-2 Table B.2 ³

Noise Insulation

Table ZZ1		
Building type	Occupancy/activity	Maximum Internal Sound Levels $L_{Aeq(1h)}$
Residential	Sleeping spaces	35 dB
	All other habitable rooms	40 dB
Education	Lecture rooms/theatres, music studios, assembly halls	35 dB

² 50 mm/s for reinforced, framed structures and heavy commercial buildings. For light framed structures and residential or light commercial buildings the limits increase from 15 mm/s @ 4 Hz to 20 mm/s at 15 Hz and again to 50 mm/s at 40 Hz and above.

³ 25 mm/s for reinforced, framed structures and heavy commercial buildings. For light framed structures and residential or light commercial buildings the limits increase from 7.5 mm/s @ 4 Hz to 10 mm/s at 15 Hz and again to 25 mm/s at 40 Hz and above.

	Teaching areas, conference rooms, drama studios, sleeping areas	40 dB
	Libraries	45 dB
Health	Overnight medical care, wards	40 dB
	Clinics, consulting rooms, theatres, nurses' stations	45 dB
Cultural	Places of worship, marae	35 dB

Table Z72	
Sleeping Spaces	65 dB L _{Amax}

The noise insulation shall assume maximum noise levels from either the current or any future Freight Hub operational noise contour map and the noise characteristic shall be that of a representative locomotive.

Note that 5 decibels must be added to calculated noise insulation requirements to account for special audible characteristics.