

I hereby give notice that a hearing by commissioners will be held on:

Date: Monday 2 May 2022
Time: 9.30am
Venue: Online via Microsoft Teams

HEARING REPORT
NOTICE OF REQUIREMENT
WHANGAPOURI ROAD SUBSTATION
COUNTIES ENERGY

COMMISSIONERS

Chairperson	Peter Reaburn
Commissioners	Gavin Lister
	Basil Morrison

Sam Otter
KAITOHUTOHU MATAAMUA WHAKAWĀ
SENIOR HEARINGS ADVISOR

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Website: www.aucklandcouncil.govt.nz

WHAT HAPPENS AT A HEARING

Te Reo Māori and Sign Language Interpretation

Any party intending to give evidence in Māori or NZ sign language should advise the hearings advisor at least ten working days before the hearing so a qualified interpreter can be arranged.

Hearing Schedule

If you would like to appear at the hearing please return the appearance form to the hearings advisor by the date requested. A schedule will be prepared approximately one week before the hearing with speaking slots for those who have returned the appearance form. If changes need to be made to the schedule the hearings advisor will advise you of the changes.

Please note: during the course of the hearing changing circumstances may mean the proposed schedule may run ahead or behind time.

Cross Examination

No cross examination by the applicant or submitters is allowed at the hearing. Only the hearing commissioners are able to ask questions of the applicant or submitters. Attendees may suggest questions to the commissioners and they will decide whether or not to ask them.

The Hearing Procedure

The usual procedure for a hearing is:

- **the chairperson** will introduce the commissioners and will briefly outline the hearing procedure. The Chairperson may then call upon the parties present to introduce themselves. The Chairperson is addressed as Madam Chair or Mr Chairman.
- The Requiring Authority (the applicant) will be called upon to present their case. The Requiring Authority may be represented by legal counsel or consultants and may call witnesses in support of the application. After the Requiring Authority has presented their case, members of the hearing panel may ask questions to clarify the information presented.
- **Submitters** (for and against the application) are then called upon to speak. Submitters' active participation in the hearing process is completed after the presentation of their evidence so ensure you tell the hearing panel everything you want them to know during your presentation time. Submitters may be represented by legal counsel or consultants and may call witnesses on their behalf. The hearing panel may then question each speaker.
 - Late submissions: The council officer's report will identify submissions received outside of the submission period. At the hearing, late submitters may be asked to address the panel on why their submission should be accepted. Late submitters can speak only if the hearing panel accepts the late submission.
 - Should you wish to present written evidence in support of your submission please ensure you provide the number of copies indicated in the notification letter.
- **Council Officers** will then have the opportunity to clarify their position and provide any comments based on what they have heard at the hearing.
- The **requiring authority** or their representative then has the right to summarise the application and reply to matters raised. Hearing panel members may further question the applicant. The applicants reply may be provided in writing after the hearing has adjourned.
- **The chairperson** will outline the next steps in the process and adjourn or close the hearing.
- The hearing panel will make a recommendation to the Requiring Authority. The Requiring Authority then has 30 working days to make a decision and inform council of that decision. You will be informed in writing of the Requiring Authority's decision, the reasons for it and what your appeal rights are.

A LIMITED NOTIFIED NOTICE OF REQUIREMENT TO THE AUCKLAND COUNCIL BY COUNTIES ENERGY

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Katrina David, Planner

Reporting on proposed Notice of Requirement to construct a power substation at 8 Whangapouri Road, Karaka.

REQUIRING AUTHORITY: COUNTIES ENERGY

SUBMITTERS:	
Page 149	The Light of Mercy Charitable Trust <ul style="list-style-type: none"> ○ Vignesh Divakar, Mt Hobson Group
Page 160	Sublime Property Management <ul style="list-style-type: none"> ○ Ryan Keegan

**Notice of requirement under section 168
of the RMA by Counties Energy for the
Whangapouri Road Substation.**

To: Hearing Commissioners

From: Katrina David, Senior Policy Planner, Planning Central/South, Plans and Places

Report date: 5 April 2022

Scheduled hearing date: 2 May 2022

Notes:

This report sets out the advice of the reporting planner.

This report has yet to be considered by the Hearing Commissioners delegated by Auckland Council (the council) to make a recommendation to the requiring authority.

The recommendations in this report are not the decisions on the notice of requirement.

A decision on the notice of requirement will be made by the requiring authority after it has considered the Hearing Commissioners' recommendations, subsequent to the Hearing Commissioners having considered the notice of requirement and heard the requiring authority and submitters.

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Summary

Requiring authority	Counties Energy Limited (formerly Counties Power)
Notice of requirement reference	Whangapouri Road Substation
Resource consent applications	<p>No resource consent applications (e.g.: for earthworks) are known to have been lodged by the requiring authority for this NoR.</p> <p>A land use resource consent application for the relocation of a minor dwelling on the site, referenced as LUC60393291, has been lodged for this project and is being reported, heard and determined separately to the notice of requirement.</p>
Reporting planner	Katrina David, Senior Policy Planner
Site address	Part of 8 Whangapouri Road, Karaka (Lot 2 DP 473807)
Lodgement date	22 October 2021
Notification date	<p>10 December 2021</p> <p>Re-notified 26 January with the submission period extended accordingly</p>
Submissions close date	25 February 2022
Number of submissions received	Total: 2

Report prepared by: Katrina David

Date: 5 April 2022

Reviewed and approved for release by:

Craig Cairncross,
Team leader Central South



Date: 5 April 2022

Abbreviations

NoR Report	<i>Notice of Requirement for Substation at 8 Whangapouri Road Karaka</i> . 21 October 2021. Prepared by Align Limited on behalf of Counties Energy, Author Lindsay Wilson
AEE	Assessment of environmental effects contained in Section 8 of the NoR Report
LVIA Report	Appendix D of the NoR Report (includes Appendix D – A and Appendix D – B) <i>Landscape and Visual Assessment: Pukekohe North Substation</i> . October 2021. Prepared by Align Limited on behalf of Counties Energy, Author Tim Walton
DSI Report	Appendix F of the NoR Report <i>Detailed Site Investigation: 8 Whangapouri Road, Karaka, Auckland</i> . 3 August 2021. (Reference number: REP-1625/DSI/JUL21) Prepared by Geosciences Limited on behalf of ERGO Consulting Ltd
Working Draft Conditions (5 December)	Section 92 response Part B 5 December 2021 Working Draft Conditions
NoR	Notice of requirement
Outline Plan or OPW	Outline plan of works
AUP	Auckland Unitary Plan Operative in Part
RUB	Rural urban boundary
Mixed Rural Zone	Rural – Mixed Rural Zone
RPS	Regional Policy Statement Chapter B AUP
EMF	Electric and magnetic fields
RF Fields	Radio frequency fields
ICNIRP	International Commission on Non-ionising Radiation Protection Guidelines
SH1	State Highway 1
SH22	State Highway 22 – also known as Karaka Road
the council	Auckland Council
Waka Kotahi or WKNZTA	Waka Kotahi NZ Transport Agency
CEMP	Construction Environmental Management Plan
CNVMP	Construction Noise and Vibration Management Plan
CTMP	Construction Traffic Management Plan
ESCMP	Erosion and Sediment Control Management Plan
HSEMP	Environmental Management Plan for Hazardous Substances
RMA	Resource Management Act 1991 and all amendments
HZNO Act	Hazardous Substances and New Organism Act 1996
HSW Act	Health and Safety at Work Act 2015
RLA Act	Resource Legislation Amendments Act 2017
NPS	National policy statement
NES:CS	National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health
NPSET	National Policy Statement on Electricity Transmission 2008

1 Introduction

1.1 The notice of requirement

Pursuant to section 168 of the RMA, Counties Energy as the requiring authority, has lodged a notice of requirement (NoR) for a designation for the Whangapouri Road Substation in the Auckland Unitary Plan (Operative in part) (AUP) at 8 Whangapouri Road, Karaka.

1.2 Locality plan

The general location of the project is shown on Figure 1 below.

The site sits within an area zoned Rural - Mixed Rural and is located on the corner of Karaka Road/State Highway 22 (SH22) and Whangapouri Road. The site is approximately 700-800m west of the Rural Urban Boundary (RUB) and approximately 700-800m east of Karaka Primary School. State Highway 1 (SH1) is approximately 4km to the east via SH22 and Pukekohe town centre is approximately 13-14km drive to the south.

Counties Energy's Quarry Road 110kV substation is approximately 4km ('as the crow flies') to the east of the site.

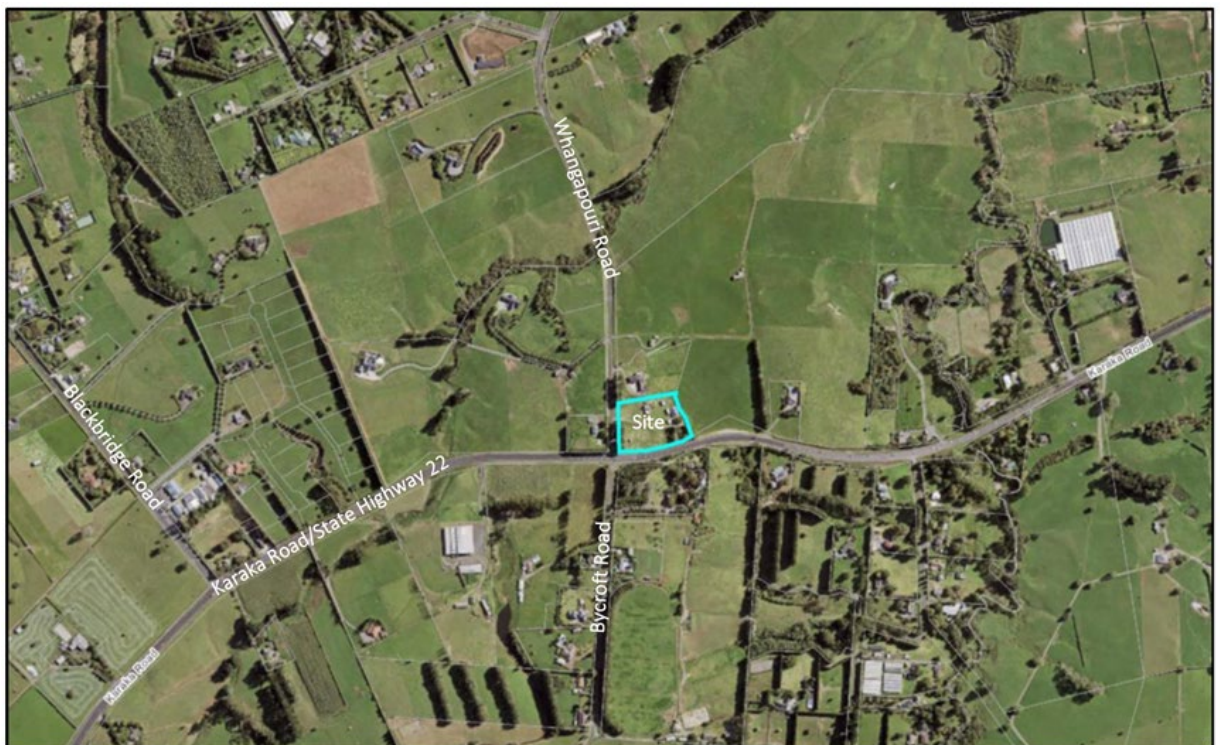
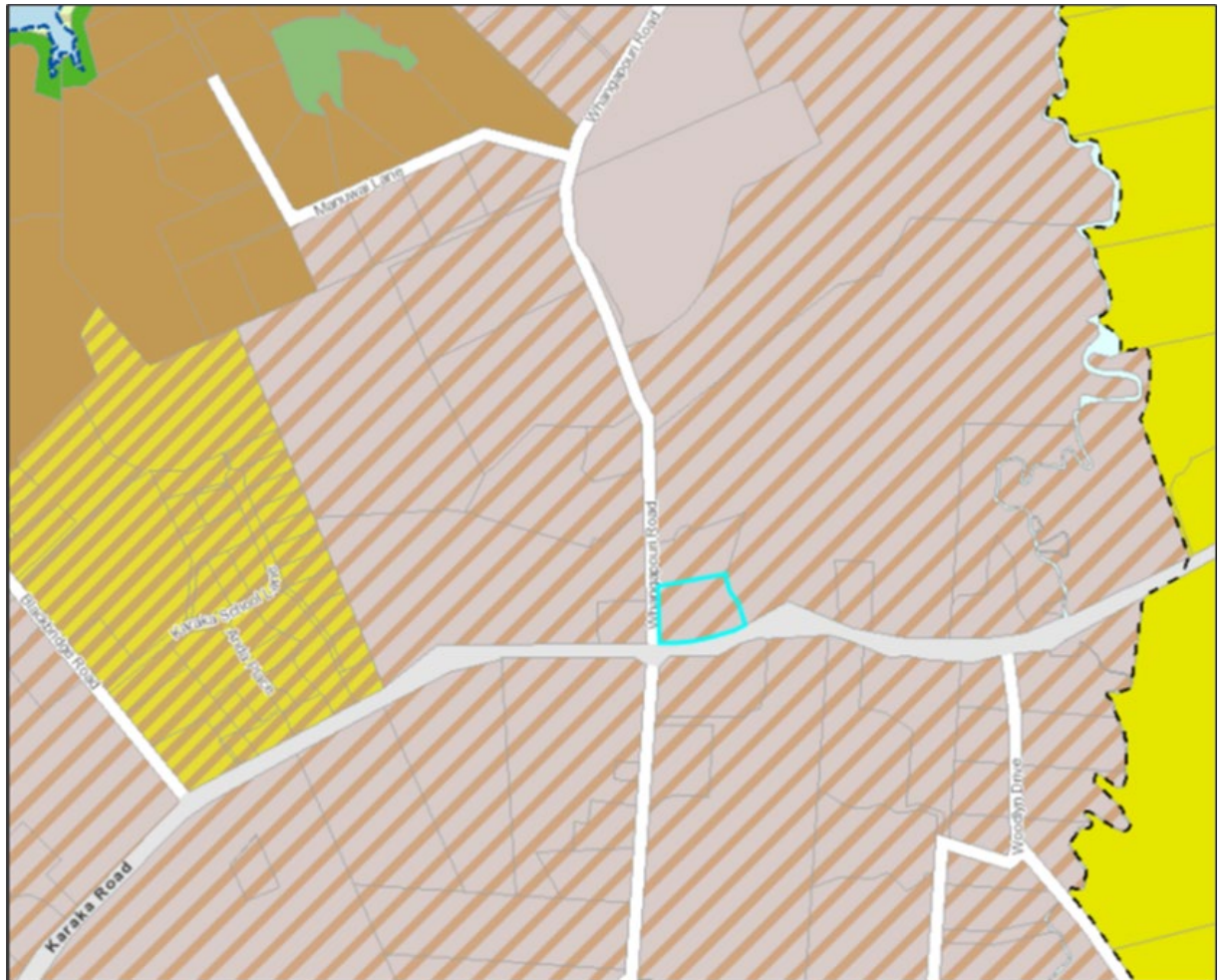


Figure 1: Locality plan showing 8 Whangapouri Road outlined in blue

Figure 2 below shows the AUP zones and RUB which apply locally.




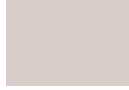



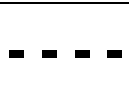
	Rural – Mixed Rural Zone		Rural – Rural Production
	Residential – Rural and Coastal Settlement		Rural - Rural Coastal Zone
	Future Urban Zone		Rural Urban Boundary

Figure 2: AUP zoning map of 8 Whangapouri Road outlined in blue and surrounding area

1.3 Notice of requirement documents

The lodged NoR consists of the following documents:

- Form 18
- Notice of Requirement for Substation at 8 Whangapouri Road, Karaka (NoR Report)
- Appendix A – Land Requirement Plan

- Appendix B – Concept Plan
- Appendix C – Infrastructure Design Report
- Appendix D – Landscape and Visual Impact Assessment and Landscape Plan
- Appendix E – Geotechnical Investigation Report
- Appendix F – Detailed Site Investigation Report
- Appendix G – Proposed Conditions
- Appendix H – Consultation with Mana Whenua
- Appendix I – Cultural Value Impact Assessment
- Appendix J – Transformer Sound Output Characteristics
- Appendix J – Record of Title

The documents are included in Attachment 1.

1.4 Section 92 requests and responses

Section 92 of the RMA allows councils to request further information from a requiring authority and/or commission a report, at any reasonable time before the hearing.

The council made a further information request and received responses on the dates in the following table.

Section 92 request	Date of section 92 response
First request for notification assessment made on 5 November 2021.	<ul style="list-style-type: none"> • First section 92 response on 17 November 2021. • Further information received 1 and 5 December 2021.

The council's section 92 request and the requiring authority's responses are included in Attachment 1.

The council's section 92 request asked for further information and a description of potential mitigation related to the following matters:

- Lighting
- Operational noise
- 5 Whangapouri Road (existing land use and assessment of adverse effects)
- 14 Whangapouri Road (existing land use)
- 8 Whangapouri Road (subject site – assessment of effects).

In addition to the section 92 request, council raised other matters and suggested amendments and/or additions to the conditions described in the lodged documentation, based on expert advice. These matters included but were not limited to:

- Additional condition(s) suggested by Auckland Transport relating to locations of and minimum distance between vehicle access crossings, landscaping restrictions for the corner of Karaka Road and Whangapouri Road, and stormwater discharge onto the road.
- Additional conditions related to maximum building height and setbacks to mitigate adverse landscape and visual effects.
- Additional conditions relating to electromagnetic fields (EMF) and radio frequency (RF) fields – electricity and radio frequencies.

Through their section 92 responses Counties Energy proposed additional conditions and/or amendments to the lodged conditions in response to some of the matters council raised.

Counties Energy also however proposed a number of other changes to the conditions in the NoR that were outside the scope of the section 92 request or other matters raised.¹

The section 92 response states:

As stated above, Counties Energy is proposing numerous changes to the initially proposed designation conditions. These are attached in the Proposed Conditions (Revision 1) dated 16 November 2021 with changes tracked. The significant changes from those initially supplied are as follows:

- *The Construction Management Plan (“CMP”) will be required at the OPW stage of the process, which will demonstrate how compliance with the Noise, Vibration, EMF, and RF Field Standards will be achieved.*
- *Details of vehicle crossings will be supplied at the time of subdivision, or at the OPW stage, whichever is the sooner.*
- *To ensure that the scale and extent of the proposed substation is in keeping with that illustrated in the concept plan, further design constraints have been included in the proposed NoR conditions, including maximum height limits, and building setback from Whangapouri Road.*
- *Evidence that all necessary consents required by any Regional Plan or National Environmental Standard have been granted or applied for at the time of OPW is supplied to the Council. Many of the conditions initially proposed are more appropriately dealt with through the consenting process so have been removed from the NoR.*

¹ See first section 92 response dated 17 November 2021

While some of the conditions Counties Energy proposed to delete relate to regional plan matters, others relate to district plan matters and would not be dealt with through another consenting process in relation to the proposed works provided for by the designation. In addition to this, the lodged NoR's AEE relied on a number of the conditions (as lodged) to mitigate potential adverse effects and the AEE was not revised to reflect the deletion of the conditions.

Further discussions were held with Counties Energy and additional information was provided. This resulted in a proposed working draft set of conditions, referred to as "Working Draft Conditions (5 December)" in this report (Attachment 1). This set of conditions included the additional conditions proposed by Counties Energy to mitigate environmental effects and some amendments. The Working Draft Conditions retained many of the conditions Counties Energy initially proposed to delete.

While these conditions were not agreed between the council and Counties Energy it was agreed that they provided the basis to move forward, and other matters could be addressed as substantive matters through the hearings process.

1.5 Specialist reviews

The assessment in this report takes into account reviews and advice from the following technical specialists engaged by the council:

Specialist	Specialty
Stephen Brown, Brown NZ Limited (consultant)	Landscape architect
Andrew Gordon	Noise - Specialist (Contamination Air Noise Team) Auckland Council
Bin Qiu	Senior Specialist (Contamination Air Noise Team) Auckland Council
Chris Freke	Principal Planner (Growth & Urban Planning Integration Unit) Auckland Transport
Preetika Singh	Healthy Waters Specialist, Healthy Waters
Andrew Kalbarczyk	Land contamination - Senior Specialist – (Contamination Air Noise Team) Auckland Council

These specialist reviews are included in Attachment 2 .

2 Notice of requirement description

2.1 Proposal

Counties Energy is proposing a new electricity substation at 8 Whangapouri Road, Karaka.

The proposal is described within section 3 of the NoR Report and in the Infrastructure Design Report (Pukekohe North Substation Infrastructure Design Report, Ergo Consulting, 2 September 2021, Appendix C of the NoR Report). The proposal is summarised briefly below.

Counties Energy advises it requires the designation to construct, operate and maintain a new 110/22kV electricity substation needed to provide for forecast electrical demand growth for the area it describes as Pukekohe North. The site will be supplied from Counties Energy's Quarry Road 110kV substation.

A lapse period of 10 years is being sought for the proposed designation by Counties Energy.

The NoR Report states:

Specific construction works proposed for the site (following the NoR and subsequent Outline Plan of Works include:

- *Approximately 2000m³ of earthworks over an area of approximately 5000m², predominantly to form a level platform for the substation yard.*
- *Construction of concrete foundation pads and steel stands for the outdoor 110kV equipment and transformers.*
- *Construction of a 22kV switchroom building.*
- *Civil site works such as earthworks, stormwater drainage, wastewater drainage and driveways.*
- *Fencing of the full site.*

Counties Energy advises the concept plan provided demonstrates the suitability of the site in terms of infrastructure and planning constraints and to inform the assessment of environmental effects. Counties Energy states "while subject to change" the concept plan shows:

- a concrete switch room building approximately 19m long, 7.5m wide, 4.5m high
- 12m-15m high gantries for the incoming 110kV lines²
- 2-3 110kV transformers on concrete foundations, with fire and bund walls³

² The 110kV cabling or overhead lines coming into or distributed from the site is not dealt with in the NoR reports.

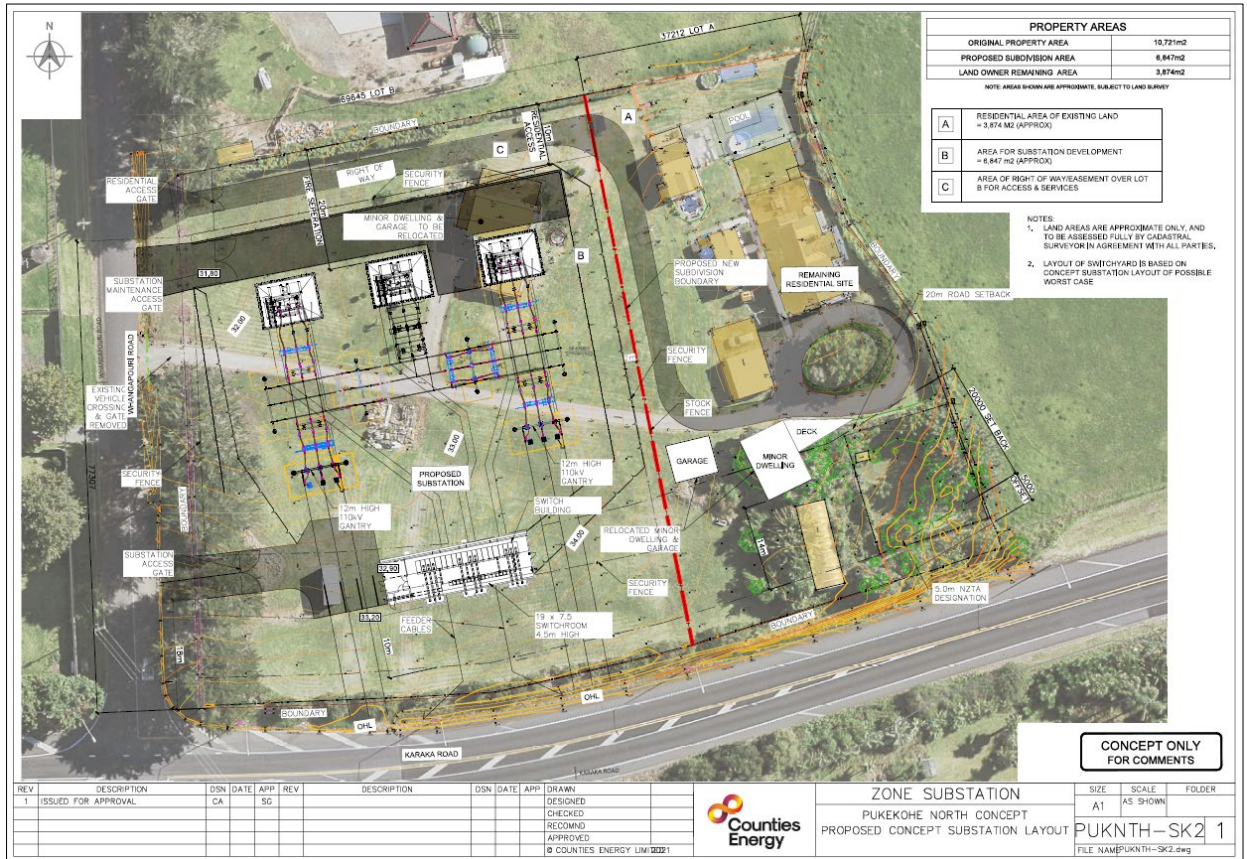
³ I note that three are shown on the concept plan included in Appendix B of the NoR.

- 8-10m high busbar works and equipment structures on concrete foundations.

The NoR Report states that the 110kv cabling or overhead lines coming into or distributed from the site are not dealt with in this report. I note that Chapter E26 provides for these activities as permitted provided specific conditions are met. This is discussed in more detail in sections , 4.3.5 and 4.8 of this report.

The existing single vehicle access way from Whangapouri Road will be removed and three new crossings off Whangapouri Road will be installed.

The concept plan is shown below.



Counties Energy advises they have a sale and purchase agreement to purchase the part of the site required for the designation. Future subdivision of the site and relocation of a minor dwelling will be required, which would necessitate consent processes separate to the NoR process.

2.2 Affected land

The NoR applies to part of 8 Whangapouri Road. The area to be designated is approximately 6,800m² of the existing 1.0724ha property. The site will be subdivided to allow for the substation and to retain the residential property on the eastern side of the property.⁴

The land requirement plan provided in Appendix A of the NoR Report shows the land that will be directly affected and required for the project and associated works.

The NoR does not apply to any other land.

2.3 Site and surrounding environment description

This report relies on the site and environment descriptions provided by the requiring authority as set out in section 2 of the NoR Report supporting the NoR. This is summarised below, with additional observations about the surrounding environment.

The site sits within an area zoned Rural - Mixed Rural and is located on the corner of Karaka Road/State Highway 22 (SH22) and Whangapouri Road. The site is approximately 8.5km north of Pukekohe.⁵ The site is approximately 700-800m west of the Rural Urban Boundary (RUB) and approximately 700-800m east of Karaka Primary School. State Highway 1 (SH1) is approximately 4km to the east via SH22.

The site is currently used for rural residential purposes, containing a dwelling, minor dwelling, accessory buildings and a greenhouse. The site is relatively flat and is largely in lawn/pasture. The site is fenced along Whangapouri Road and most of Karaka Road which allows clear views of the site. There is a small group of trees in the south-eastern corner of the site.

Open paddocks dominate much of its wider landscape setting, although a number of rural residential 'lifestyle' properties are found up Bycroft Road to the south, and scattered pockets of rural residential are also apparent off Karaka Road both east and west of it. These are often

My visit to the area in October last year revealed that the house at 5 Whangapouri Road described by the NoR Report had been removed, along with vegetation along the boundaries. A building platform was visible showing construction of another building was underway.

When revisiting the area on 26 March 2022, I observed the following changes in the environment:

⁴ The subdivision is not part of the NoR process.

⁵ I note this is "as the crow flies". Via SH22 it is approximately 12-13km to Pukekohe town centre.

- the construction of a large house at 5 Whangapouri Road had progressed substantively with fencing erected
- part of the row of large trees along the boundary of 10 Bycroft Road, leading up to the intersection had been removed. Other tree removal works appeared to in progress on other parts of the site.
- the residential development within the Rural and Coastal Settlement zoned area along Karaka School Lane and Anda Place has progressed with more houses visible, including a large two storey house clearly visible.
- part of a row of trees along the western boundary of 364 Karaka Road (SH22) is no longer there.



Figure 3: Aerial photo showing 8 Whangapouri Road (existing property boundary) and road widening designation 6705. Note all trees along Whangapouri Road are no longer there. Source: Figure 2 of NoR.

The following photo from Counties Energy shows the subject site on the corner of Whangapouri Road and Karaka Road. Karaka Road is in the foreground running left to right.



Figure 4: Corner of 8 Whangapouri Road at intersection. Source: Figure 7 of NoR: *VP01 Before image, viewpoint from oncoming traffic opposite the site*

Counties Energy has also identified the zoning, overlays, controls and designations of the AUP, on page 2 and in section 2 of the AEE, which are relevant to the subject site. I concur with the AUP zone, overlays, controls and designation identified as applying to the and have no further comment.

The Future Urban zoned land to the east of the RUB has been the subject of an Auckland Council Structure Plan. This was developed through the period 2017-2019 and the project was subject to extensive public engagement at the time. The structure plan (formally adopted by council August 2019) contains a land use map which describes a vision for the urbanisation of the (approximately 1900ha) Drury – Opāheke area - extending from the RUB boundary at Drury West up to Opaheke. Overall, the development of the structure plan area over 30 years is estimated to provide about 22,000 houses and about 12,000 jobs with a population of about 60,000. The Drury West part of the structure plan, west of the motorway and north of SH22 indicates that future rezoning could see provision for significant new residential development as well as centres to serve the retail and social needs of the population growth expected.

I note that the structure plan area has been the subject of a number of recent Private Plan Change requests inclusive of two in the Drury West Area – Plan Change 51 and Plan Change 61 in the Jesmond Road area.

Plan Change 51 (MADE) proposed rezoning for a town centre and medium to high density residential and was approved by Independent Commissioners earlier this year.

Plan Change 61 (Lomai Properties Ltd) proposed rezoning for a local centre and medium to high density residential and was declined by Commissioners. At the time of writing however Plan Change 61 is the subject of an appeal to the Environment Court by the applicant (Lomai Properties Ltd) to have the decision of the Commissioners overturned and the proposed rezoning allowed.

Resource consents for bulk earthworks and other activities to develop the Plan Change 61 area have also been lodged and marketing of land has commenced – all signalling that the developer is looking to develop sites and houses in the short term.

Additionally in 2021 New Zealand Transport Authority (Waka Kotahi) and Auckland Transport lodged Notices of Requirement to alter existing designations for route protection and road widening inclusive of roads in Drury West to provide for the oncoming urbanisation. A railway station at Drury Central has recently received planning approval for its designation and enabling site works. KiwiRail has announced that a Notice of Requirement and resource consent applications for a railway station in Drury West, near Jesmond Road, will be lodged shortly.

In summary the Future Urban zoned area to the east of the area subject to Counties Energy's NoR is likely to be subject to significant change to become urbanised in the coming years.

2.4 Other designations, notices of requirement and consent applications.

The land within or adjoining the NoR is subject to one existing designation being Waka Kotahi Designation 6705, State Highway 22: Karaka to Pukekohe – Road widening. This applies to a 5 metre strip of the front of the site along Karaka Road (SH22).

Section 3 of the NoR Report states that separate consents will be required for works not part of the NoR. These are summarised below:

- Subdivision consent to subdivide the site into two – for the substation and the balance of the site for existing residential use
- Relocation of the existing minor dwelling within the site (to be located within the new residential lot). It is understood that this consent has been applied for (LUC60393291).

If requested by the hearing commissioners, I can provide a list of existing land use and regional consents (e.g. groundwater takes, network discharges) and applications within and immediately adjoining the project footprint.

3 Notification and submissions

3.1 Notification

The NoR was limited notified on 10 December 2021. The following parties were to be served notice:

- Owners/occupiers of 5 Whangapouri Road, Karaka
- Owners/occupiers of 14 Whangapouri Road, Karaka
- Ngāti Tamaoho Trust.⁶

⁶ Notice served via email

Due to NZ Post not delivering the affected parties' letters, the council had to resend the letters via courier on 26 January 2022. Ngāti Tamaoho were also re-served notice, via email. As a result the submission period was extended accordingly. The closing date for submissions was 25 February 2022.

3.2 Submissions

Two submissions were received from:

- The Light of Mercy Charitable Trust (14 Whangapouri Road)
- Sublime Property Management Ltd (5 Whangapouri Road)

Copies of submissions are included in Attachment 3.

The issues raised in submissions are addressed in section 4.2.2 of this report.

Fifteen people who were not served notice tried to submit on this NoR. These 'submissions' could not be accepted by council. The council has phoned these parties to explain this, and letters were also sent to them stating their submissions could not be accepted. Counties Energy offered to speak to these people to discuss their concerns. If the parties choose to take up this offer from Counties Energy, their details were given to Counties Energy. It is understood that many parties have heard from Counties Energy. Counties Energy may be able to outline the outcomes of this liaison.

4 Consideration of the notice of requirement

4.1 Designations under the Resource Management Act 1991

The RMA provides that the procedures adopted in processing a notice of requirement are generally those adopted for processing a resource consent application. This includes lodgement, requiring further information, notification, receiving and hearing of submissions. In respect of this NoR, all of those procedures have been followed.

The procedure differs from the resource consent process in respect of the council consideration of the NoR. Section 171(1) of the RMA states:

- (1) *When considering a requirement and any submissions received, a territorial authority must, subject to Part 2, consider the effects on the environment of allowing the requirement, having particular regard to—*
- (a) *any relevant provisions of—*
 - (i) *a national policy statement:*
 - (ii) *a New Zealand coastal policy statement:*
 - (iii) *a regional policy statement or proposed regional policy statement:*
 - (iv) *a plan or proposed plan; and*

- (b) *whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work if—*
 - (i) *the requiring authority does not have an interest in the land sufficient for undertaking the work; or*
 - (ii) *it is likely that the work will have a significant adverse effect on the environment; and*
- (c) *whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought; and*
- (d) *any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement.*

Section 171(1)(a) is addressed in sections 4.4 to 4.9 below. Section 171(1)(b) is addressed in section 4.10 below. Section 171(1)(c) is addressed in section 4.11 below. Section 171(1)(d) is addressed in section 4.12 below.

Section 171(1) is subject to Part 2 of the RMA. Part 2 contains the purpose and principles of the RMA. It has been confirmed by the Environment Court that, in relation to a designation matter:

...all considerations, whether favouring or negating the designation, are secondary to the requirement that the provisions of Part II of the RMA must be fulfilled by the proposal.⁷

After considering these matters, the council needs to make a recommendation to the requiring authority under section 171(2) of the RMA which states:

- (2) *The territorial authority may recommend to the requiring authority that it –*
 - (a) *confirm the requirement:*
 - (b) *modify the requirement:*
 - (c) *impose conditions:*
 - (d) *withdraw the requirement.*

Reasons must be given for the recommendation under section 171(3) of the RMA. Refer to section 6 below for my recommendation.

⁷ See Estate of P.A. Moran and Others v Transit NZ (W55/99)

4.2 Consideration of submissions

4.2.1 Late submissions

No late submissions were received.

4.2.2 Consideration of submissions and Local Board Views

The matters raised in submissions are considered below. Where relevant cross references are made to the assessment of effects within section 4.3 of this report in relation to effects on the environment.

Submission 1 – The Light of Mercy Charitable Trust

This submitter is the owner of 14 Whangapouri Road, Karaka and opposes the NoR. They raise concerns about the following matters:

- incorrect information in the NoR, in particular about the use of their property
- adverse effects of visual dominance on their property
- adverse effects on health and safety including; risk of radiation, noise, and traffic and road safety
- adverse effects on the value of their property
- lack of consideration of alternative options.

The submitter seeks relief to amend the proposed landscape plan to avoid adverse effects on road safety.

These matters are discussed below.

Incorrect information in the NoR

The submitter considers that the NoR Report contains incorrect information about their property (14 Whangapouri Road). In particular the claim by Counties Energy that their property is not a highly sensitive receptor because it is currently a Buddhist Temple and not frequented by visitors. The submission states that their property contains a consented dwelling which ordinarily provides residence to the lecturers and volunteers (local and from overseas). While the dwelling is less frequented by their volunteers in recent times, this said to be due to Covid 19, they expect this to change once international borders reopen. The submission states that a family currently live in the dwelling full-time to maintain the property.

Comment:

I requested further information (section 92) from Counties Energy to support their claims about the use of 5 and 14 Whangapouri Road and why 14 Whangapouri Road was not considered a sensitive receptor. The section 92 request and response are contained in Attachment 1 of this report. I was not convinced with the information provided by Counties Energy. Given the building on 14 Whangapouri Road appeared to be a dwelling, and the with the uncertainty regarding the existing land use of 14 Whangapouri Road I considered it appropriate to consider what the permitted land uses of the site were and what was legally consented (a dwelling), in considering the appropriate notification pathway.

In my opinion the information provided by the submitter clarifies that 14 Whangapouri Road is currently used for residential activities. This aligns with council records which show a building consent for a dwelling was the last consent issued.⁸

Therefore my consideration of the submissions and assessment of effects is based on this property being used for residential purposes.

Visual dominance

The submitter considers “... *that a significant structure like a substation is an unusual building form for a rural environment*” and they are particularly concerned about the adverse effects of visual dominance on the use and enjoyment of their property.

The submission states the “... *submitters chose this site for establishing their dwelling since they believed that this site could offer their residents a sense of a countryside lifestyle away from an urban life. Being an immediate neighbour, a towering substation could render the intentions of the submitter moot.*”

The submission provides photos of another substation in Whangarata Road, Tuakau as an example of what the submitter considers to be significant visual dominance caused by a substation. The submitters considered the proposed substation could exert a similar level of visual dominance on their property if the proposed buffer is inadequate.

The submission also raises concerns about Counties Energy’s Landscape and Visual Assessment Report (LVIA Report) and section 92 response. In summary these concerns include:

- The schematic cross section illustrated in the Section 92 response only considers the effects from one viewpoint – from the front door of 14 Whangapouri Road. It does not consider adverse effects from outside the dwelling. The submitter states it is expected that their property will be used for outdoor and recreational activities and believe the substation could impose “significant visual dominance effects”.

⁸ Based on search of database 25 March 2022.

- An apparent contradiction in the stated height of the hedges between the proposed planting schedule (states 3m) and Counties Energy’s section 92 response (states 4m).
- The expected height of the hedges at maturity (3m) proposed in the LVIA Report may be inadequate to mitigate the visual dominance of a large structure such as a substation.
- The LVIA Report should have considered other viewpoints “...taken from the immediate neighbours’ properties which could have revealed the substation’s significant visual dominance effects and how the hedge buffer may not have been an adequate mitigation.”

The submitter also seeks consultation with Counties Energy to discuss the provision of an adequate landscape buffer to the northern boundary as proposed in the conditions.

Comment:

On behalf of the council, Stephen Brown (consultant landscape architect) has reviewed the NoR, LVIA Report, section 92 further information, submissions, and the advice from Chris Freke (Auckland Transport), and his advice is in Attachment 2 of this report.

Mr Brown’s advice has been provided in two parts and should be read in conjunction. The first part (dated 2 November, 21 November and 2 December 2021) was useful in informing the notification determination and the second part was provided as part of assessment process for this recommendation report (25 March 2022) pursuant to s171.

In relation to 14 Whangapouri Road, Mr Brown initially advised he had concerns with the findings in the LVIA Report and disagreed with its assessment of the level of adverse effects for this property.⁹ In summary he concluded:

- Reliance should not be placed on the existing Pittosporum hedge between 14 Whangapouri Road and the subject site to provide effective screening due to the health of the hedge and its likely deterioration in the longer term.
- The proximity of the residence at 14 Whangapouri Road and the limited ability of the “small trees” proposed on the northern boundary of the subject site to screen the transformers, bus or connecting lines would likely result in a significant sense of incursion and intrusion. This would have an adverse effect on the perception of living within a semi-rural landscape and awareness of the transformers and bus would likely erode both the rural and residential amenity values of 14 Whangapouri Road.

⁹ Part 1 of advice pre-notification

- Overall the adverse visual effects on 14 Whangapouri Road would be moderate-high in the short to medium term and could reduce to a moderate, or perhaps lower level, in the longer term as planting matures. However given the uncertainty of the likely effectiveness of the existing hedge beyond 8-10 years he considered the adverse effects might return to a much higher level in the longer term without additional planting to replace the existing hedge.¹⁰
- Counties Energy should consult with the owners of 14 Whangapouri Road about future mitigation planting.

Mr Brown also recommended conditions be added limiting the maximum building/structure height and minimum setbacks of the substation. In response to Mr Brown's recommendations Counties Energy proposed additional conditions¹¹ which were included in the Working Draft Conditions dated 5 December 2022. Mr Brown supported these conditions.

However ultimately Mr Brown still considered the effects on 14 Whangapouri Road to initially start at a moderate level, increasing to a high level in the longer term without significant planting to replace the Pittosporum hedge that would eventually fail.

More latterly, in the second part of advice to council Mr Brown has further considered the NoR and supporting documents and the submissions received.

In relation to 14 Whangapouri Road Mr Brown states:

*... as indicated in my first Supplementary Report, I retain concerns about the proposed substation's potential effects on 14 Whangapouri Road. That property is only partially separated and screened from the application site by an existing pittosporum hedgerow, with the mature part of that hedgerow only extends along part of the boundary shared with the NOR site. This potentially leaves **the eastern half of that property fully exposed to the substation, its electrical yard and transformers, while the rest of the property would be exposed to the more elevated components of the yard and its bus without further screening. Moreover, I retain my previously expressed concerns about the limited duration and height of the pittosporum hedgerow, which is problematic in terms of creating an effective and enduring buffer between both properties. In my opinion, this situation could result in the proposed substation having a high level of effect in relation to 14 Whangapouri Road, and its occupants, without certainty about the height and depth of additional planting along that boundary.***

¹⁰ Note, Mr Brown considered the effects would be less if the property was used for institutional purposes such as a church as claimed at the time by Counties Energy. I have not included that part of Mr Brown's assessment in this summary.

¹¹ Proposed Conditions: 6A – requiring consultation with the owners of 5 and 14 Whangapouri Road when designing the detailed landscape plan, 16A limiting maximum heights (15m-17m) and 16B requiring 10m setback from Whangapouri Road.

*Consequently, it is my view, this frontage should be treated in a similar manner to both Karaka and Whangapouri Roads to avoid such adverse effects. **In particular, tall mitigation planting is required along the full length of that shared boundary, although flax and other, lower tier planting is not, in my opinion, required.** [emphasis added]*

Mr Brown advises he supports proposed Conditions 3(e), 15, 16, 16A and 16B to help manage adverse visual effects. However he is concerned with the effectiveness of condition 3(e) which relates to the Indicative Planting Plan¹² contained in the LVIA Report. Mr Brown considers that further amendments to Condition 3(e) are required in conjunction with a number of changes to the “Indicative Planting Plan”. Relevant to this submission are his recommendations about the level and robustness of the planting required at the boundary between the proposed substation and 14 Whangapouri Road.

I adopt the findings of Mr Brown in relation to the visual effects on 14 Whangapouri Road. Mr Brown’s recommendations are discussed in more detail in section 4.3.5 of this report.

With regards to the submitter’s request to meet with Counties Energy to discuss the landscape planting along their boundary, Counties Energy may be able to advise if they have undertaken consultation with the submitter and what the outcomes of that consultation are.

A matter that may have been raised through Counties Energy’s liaison with the submitter and others is that of the potential for the power lines to be brought to the site by way of them being undergrounded some distance away from the subject site, possibly on the other side of SH22. Such an approach could serve to lessen the potential visual effects of the development of the substation. This wasn’t described in the NoR served on the council by Counties Energy but as said, this may well have been discussed through their engagement.

Counties Energy may wish to address this at the hearing.

Health and safety

Radiation

The submitter is concerned about adverse effects of radiation from the substation and overhead cables. In particular the belief that “... *their lecturers and visitors may show little interest in residing or visiting their property since their visitors fear they might be exposed to any harmful radiation*”. The submitters also consider that the transmission lines may restrict the site’s development potential if they go over their property.

Comment:

¹² Figure 13 in the LVIA Report

Counties Energy have proposed Condition 17 that requires the operation of the substation to comply with international guidelines relating to Electric and Magnetic Fields (EMF).

The council's specialist Bin Qiu (Senior Specialist - Contamination, Air & Noise) has reviewed the NoR and submissions received and provided a response on 10 March 2022 which is included in Attachment 2 of this report.

In summary Bin Qiu concludes:

- Powerlines and associated equipment (such as the substation) have the potential to produce EMF emissions.
- AUP Rule E26.2.5(2)(6) requires compliance with international guidelines: *International Commission on Non-ionising Radiation Protection Guidelines for limiting exposure to time varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 2010, 99(6); 818- 836) and recommendations from the World Health Organisation Monograph Environmental Health Criteria (No 238, June 2007).*
- Proposed Condition 17 of the NoR is appropriate (subject to an amendment to its wording) to manage the adverse effects of EMF emissions. The "... *public and submitters are unlikely to be exposed to the substation EMF in levels exceeding the international standards International Commission on Non-ionising Radiation Protection Guidelines for limiting exposure to time varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 2010,).*"
- Recommends proposed Condition 17 is amended to require a monitoring component. This is to ensure that EMF compliance is achieved and maintained when it is in operation with particular regard for the closest neighbours and also the general public.

Further discussion on the effects of EMFs is outlined within section 4.3.5 of this report.

In regard to the submitter's concern about adverse effects on future development potential of their site, as discussed in sections 4.3.3, 4.3.5 and 4.8 Chapter E26 of the AUP provides for 110kV overhead electricity lines as a permitted activity in rural zones provided specific standards are met (e.g. AUP E26.2.5(2)(6)). Permitted activities are able to be undertaken as of right and do not require resource consent approval.

Noise

The submitter notes that while the NoR indicates that the noise levels from the substation will be within the permissible AUP limits (45dB) they are concerned that these limits may be breached if any part of the machinery is not in proper working order. The submitter is concerned this might affect the livelihood of the residents dwelling in their property.

Comment:

Counties Energy have proposed conditions to manage noise generated from the construction and operation of the substation.

The council's specialist Andrew Gordon (Noise Specialist - Contamination Air Noise Team) has reviewed the NoR and submissions received and provided a response on 11 March 2022 which is included in Attachment 2 of this report. His advice relating to noise adverse effects is discussed in more detail in section 4.3.5 of this report.

In summary, based on the information available Andrew Gordon concludes:

- 14 Whangapouri Road contains an activity sensitive to noise (i.e. residence) which should be treated as being occupied, the same as any dwelling.
- Lack of maintenance and/or malfunctioning equipment could potentially give rise to abnormal (i.e. higher and/or more noticeable) noise emissions. Adherence to a routine inspection and maintenance programme would ensure this potential scenario is avoided. If noise levels were considered by the submitter to be unreasonable, a complaint can be made to the council for investigation.
- The site layout and activities can be designed to enable compliance with permitted noise standards in E26 without any practical constraints.
- Construction noise and vibration effects will be managed via a Construction Noise and Vibration Management Plan (CNVMP) to ensure temporary construction effects are reasonable, and noise is compliant with NZS 6803:1999 Acoustics – Construction Noise.
- Overall, noise effects on submitters will be reasonable.
- Adverse noise effects on rural amenity will be avoided.
- Proposed Conditions 9, 10, 11 (construction noise) and Condition 11A (operational noise) contained in the Working Draft Conditions (5 December) should be retained, with further amendments recommended.
- Recommends an additional condition should be added requiring a CNMP as part of the Outline Plan.

Further discussion on noise effects is outlined within section 4.3 of this report, including Mr Gordon's recommended changes to the proposed conditions.

Traffic and road safety

The submission raises concerns about traffic and road safety associated with the Whangapouri Road and Karaka Road (SH22) intersection and the submitters considers that the "... *substation might further increase the traffic volume in an already dangerous road and thereby increasing the chances of traffic incidents around the area.*"

The submission notes that Whangapouri Road experiences traffic volume of 400 vehicles a day turning on to SH22¹³ and that planned safety improvements and upgrades by Waka Kotahi have been cancelled.

The submitter also notes that “...the applicant proposes that all exterior lighting will be positioned and aimed within the site to avoid the adverse effects on immediate neighbours. However, there had been no information on the impacts of the lighting towards the road users of SH22.”

The submitter requests the applicant to amend the proposed landscape plan to reflect the following changes:

3.1.1. *The landscape hedging proposed along the Karaka Road frontage must be setback further to allow space for any future road widening activities and to allow adequate sightlines for the vehicle users merging onto Karaka Road from Whangapouri Road.*

3.1.2. *The boundary adjacent to the intersection of the aforementioned roads to be tapered similar to the tapering provided on the intersection of Karaka Road and Bycroft Road to offer better sightlines. The landscape plan should be amended as to not propose any hedge buffer in that tapered portion. Refer to the image below.*



Figure 7: *Tapering requested by the submitter to the applicant’s boundary as similar to the opposite intersection.*

¹³ Sourced from the 2021 Traffic count data by Auckland Transport

Comment:

Chris Freke (Principal Planner - Growth & Urban Planning Integration Unit, Auckland Transport) has reviewed the NoR, section 92 further information and submissions received on behalf of council and provided a response on 31 March 2022 which is included in Attachment 2 of this report. His advice is discussed in more detail in section 4.3.5 of this report, including information about traffic context of the intersection and potential upgrades .

In summary Chris Freke concludes:

- The amount of traffic generated from the operation of the substation is likely to be very low and is unlikely to adversely affect road safety.
- Construction traffic could be a potential risk; however this risk can be managed with appropriate conditions. Mr Freke recommends a new condition to require a Construction Traffic Management Plan.
- The proposed landscape planting could adversely affect future sightlines if the front of the site within the Waka Kotahi road widening designation becomes part of the road in the future. Agrees that vesting a splay as part of the road (similar to that on Bycroft Road) could improve safety at the intersection. However considers that the effects of the proposed substation do not warrant this being imposed at this time.
- Recommends a new condition to restrict the height of planting in the very south-western corner of the site (a triangular area based on the Waka Kotahi road widening designation). This is to lessen issues around it being acquired at a future date if required as well as addressing potential sight line issues in the event that SH22 is widened.
- Recommends conditions could manage the potential impact of light glare/spill on road users.

Further discussion on traffic and road safety effects is outlined within section 4.3.5 of this report.

Adverse effect on the value of their property

The submission states that the submitter moved to Karaka *“to offer a clean and green countryside living to their residents and they consider the substation could render their intention moot if it is developed. The submitters believe that the substation would impact them financially since they believe that their property might lose its commercial value and may not be able to sell this property even if they are willing to move to another site.”*

The submitter also considers, if the designation proceeds, then some form of compensation should be offered that is greater than the mitigation offered.

The relevance of effects on property values within the RMA context has been addressed by the Environment Court, which has found that such effects are generally not a relevant consideration. *Tram Lease Limited v Auckland Transport* refers to three cases including *Foot v Wellington City Council*, *Bunnik v Waikato District Council* and *Hudson v New Plymouth District Council*.¹⁴

In particular I note that *Tram Lease Limited v Auckland Transport* found “...that diminution of property values will generally simply be found to be a measure of adverse effects on amenity values and the like...”¹⁵

In the *Tram Lease* decision, the Court confirmed the Public Works Act is the appropriate framework for addressing property value concerns rather than an as an RMA effect.

The conditions that are proposed inclusive of limiting the maximum building/structure height, the building/structure setback from Whangapouri Road boundary and the requirement for substantial planting¹⁶ will assist with maintaining amenity.

I note that the submitter’s property is within the Mixed Rural Zone. While the zone anticipates a good level of amenity for rural lifestyle purposes, the level of amenity reflects the presence of various rural and non-residential activities that may generate effects greater than that normally found in areas set aside for rural lifestyle activities.¹⁷ This is evident in the activities that are permitted¹⁸ within the Mixed Rural Zone (i.e. allowed as of right) but are not permitted within the Countryside Living Zone. The amenity values anticipated by the Countryside Living Zone reflect its predominant use for rural lifestyle living rather than rural production activities.¹⁹ The list below includes activities that are permitted in the Mixed Rural Zone but not the Countryside Living Zone.

- Greenhouses²⁰
- Poultry farming (free range and intensive)²¹
- Intensive farming²²

¹⁴ *Tram Lease Limited v Auckland Transport* [2015] NZEnvC137 paragraphs 56 to 62.

¹⁵ *Tram Lease Limited v Auckland Transport* [2015] NZEnvC137 paragraph 57

¹⁶ As recommended by the council.

¹⁷ AUP H19.4.3 Policy(2)(d)

¹⁸ Provided permitted standards in AUP H19.10 are met.

¹⁹ AUP H19.7.3 Policy (5)

²⁰ AUP H19.8 Activity table, Table H19.8.1 (A4)

²¹ AUP H19.8 Activity table, Table H19.8.1 (A6) and (A8)

²² AUP H19.8 Activity table, Table H19.8.1 (A5)

- On-site primary produce manufacturing²³
- Animal breeding or boarding.²⁴

Other matters

The submitter raises concern that Counties Energy has not considered many alternative options, stating that there are other appropriate sites around the area that may be well or better suited.

Comment:

Section 171(1)(b) of the RMA does not require a requiring authority to demonstrate that it has chosen the best of all available alternatives, including alternative locations. The consideration of alternative options is discussed in section 4.10 of this report.

Submission 2 – Sublime Property Management Ltd

This submitter is the owner of 5 Whangapouri Road, Karaka and opposes the NoR. They raise concerns about the following matters:

- incorrect information in the NoR, in particular about the use of 5 and 14 Whangapouri Road and the claim that the substation will be compatible with the surrounding land uses
- a rural/lifestyle area is an inappropriate location for a “significant industrial installation” such as the substation and other locations are better suited (e.g. those zoned for future industrial or within areas the substation is intended to service)
- lack of information in the NoR about the high voltage wires entering and leaving the site and external support structure for these
- adverse effects on health and safety including:
 - risk of radiation for humans and animals
 - traffic and road safety at the intersection of Whangapouri Road and Karaka Road. The submitter considers this intersection is already busy and dangerous and states Waka Kotahi have told them the previously planned road upgrades have been cancelled
- adverse effects on visual amenity for their property (5 Whangapouri Road) and neighbouring properties, and impact on property values
- lack of consultation and incorrect notification process.

²³ AUP H19.8 Activity table, Table H19.8.1 (A22)

²⁴ AUP H19.8 Activity table, Table H19.8.1 (A17)

Comment:

Incorrect information in the NoR

As indicated previously I was not convinced with the information provided by Counties Energy about the existing uses of 5 and 14 Whangapouri Road. Instead I considered it appropriate to consider what the permitted land uses of the sites were and what was legally consented (a dwelling in both instances), in considering the appropriate notification pathway.

The submitter has confirmed that a 6-bedroom home is currently being built on their property that will be used as a show home for approximately 3-5 years, before it will be sold as a residential home.

In my opinion the information provided by the submitter clarifies that 5 Whangapouri Road will not be used as a storage yard as claimed by Counties Energy. At this stage a dwelling is being constructed. My understanding is that a building consent for the construction of a dwelling was issued in 2021.²⁵

I note that a “show home” is a commercial activity and requires a resource consent in the Mixed Rural Zone as a discretionary activity.²⁶ I am not aware of a resource consent being granted for a show home at 5 Whangapouri Road.

Inappropriate location for a substation and lack of information about transmission lines

Section 171(1)(b) of the RMA does not require a requiring authority to demonstrate that it has chosen the best of all available alternatives, including alternative locations. The consideration of alternative options is discussed in section 4.10 of this report.

The provisions in Chapter H19 Rural Zones and E26 Infrastructure provide a framework for understanding what is appropriate on the subject site.

The subject site is in the Rural - Mixed Rural Zone. The purpose of the Rural – Mixed Rural Zone is to provide for rural production, generally on smaller rural sites and non-residential activities of a scale compatible with smaller site sizes while ensuring good amenity levels for rural lifestyle purposes. The zone also recognises that the “level of amenity” within the zone may not be the same found in other areas intended for rural lifestyle activities.²⁷

²⁵ Based on investigation of council's SAP database (consenting) 23 March 2022.

²⁶ AUP H19.8 Activity table, Table H19.8.1(A41)

²⁷ H19.4.3 Policy (2).

RPS Chapter B3.2 and Chapter E26 Infrastructure provisions recognises the benefits and necessity in providing for infrastructure, and that infrastructure might cause adverse effects. While these adverse effects should be avoided, remedied or mitigated, an assessment of the effects of an infrastructure proposal also needs to take into account the needs for and of the infrastructure proposed.

The AEE and sections 4.3.3, 4.3.5 and 4.8 of this report discuss relevant permitted activities and standards that provide a baseline when considering effects of this proposal.

In addition to this I note that within the Mixed Rural Zone a number of infrastructure activities are provided for as permitted activities if specific standards are met. In particular I note that an “unenclosed substation” (such as this proposal would likely be considered if the resource consent process was used) would be a restricted discretionary activity with this zone. Matters of discretion are limited to those in E26.2.7.1(1) which take into account the benefit and operational need of the infrastructure along with visual and noise effects and measures required to avoid, remedy or mitigate adverse effects.

In my opinion, given the enabling framework of Chapter E26, and the restricted discretionary activity status for an “unenclosed substation”²⁸ in the Mixed Rural Zone, this demonstrates that a substation is an activity that is anticipated within the zone provided adverse effects, such as noise and visual, are avoided, remedied or mitigated. I also note that the Light and Heavy Industry zones are no more permissive for an “unenclosed substation” than the rural zones.²⁹

See section 4.3 of this report which considers effects on the environment.

AUP provisions would also require an “unenclosed substation” to comply with specific standards some of which relate to operation noise, EMFs, RF Fields, and maximum building height. I note that some of the proposed conditions are similar to these standards. See section 4.3.5 of this report for further discussion on recommended conditions.

With regards to the submitter’s concerns about a lack of information in the NoR about the transmission lines and the route they will take to reach the substation Counties Energy might be able to provide further information about this matter.

²⁸ E26.2.3.1(A21)

²⁹ E26.2.3.1(A21) An “unenclosed substation” in the Light Industry Zone is a discretionary activity and is a restricted discretionary activity in the Heavy Industry Zone.

I note that in assessing the effects of the NoR council can only consider the potential effects generated by the proposal which in this case does not include the powerlines. As discussed previously Chapter E26 of the AUP provides for 110kV overhead electricity lines as a permitted activity in rural zones (and roads adjacent to rural zones) provided specific standards are met (e.g. AUP E26.2.5(2)(6)). Permitted activities are able to be undertaken as of right and do not require resource consent approval.

In summary the proposal can be considered to be appropriate at this location provided the recommended conditions are included to manage adverse environmental effects.

Adverse effects on health and safety

These concerns are similar to those raised by Submission 1 and include road safety and risk of radiation. Submitter 2 also raises concerns about effects on the health and safety of animals as well as on humans. Please refer to this earlier discussion for Submission 1. Please also see section 4.3 of this report.

Although the submitter did not specifically raise concerns about the effects of noise on health and safety, Mr Gordon council's noise expert advises:

- *Given the low noise levels predicted and the absence of any loud impact/impulsive type noise associated with day to day operations, it is reasonable to assume noise effects on animals (e.g. horses, cattle, sheep) will be none or negligible.*

The substation is expected to readily comply with the operational noise standard in Chapter E26. Operational noise is unlikely to be noticeable from either the new dwelling at 5 Whangapouri Road or the dwelling at 21A Whangapouri Road.

Adverse effects on visual amenity and impact on property values

As mentioned above Stephen Brown has provided advice to council in relation to the landscape and visual effects of the proposal.

With regards to 5 Whangapouri Road, Mr Brown initially raised concerns with the findings in the LVIA Report and disagreed with its assessment of the level of adverse visual effects on the property. In summary he concluded:

- It appears a house is being built on the site (not the storage yard as claimed in the LVIA Report), therefore his assessment is based on this.
- The proposed planting along Whangapouri Road would eventually provide a reasonable degree of screening but it would not screen all of the substation and associated equipment. The local landscape would become even less rural than it is now and the view from 5 Whangapouri Road across to the substation would change in character becoming more "industrialised, utilitarian" than it currently is. Inevitably, this would have an adverse effect on perception of the immediate road environs and that part of 5 Whangapouri Road closer to that road frontage.

- Taking into consideration the additional conditions Counties Energy proposed through their section 92 response, Mr Brown considered the visual effects on 5 Whangapouri Road would initially be moderate-high but would reduce to a low-moderate level after approximately 8-10 years, as the proposed mitigation planting facing that road matures.
- Strongly supported proposed conditions 16A (maximum building/structure height) and 16B (Whangapouri Road setback), in particular Condition 16B.

Now in his second part of advice to council Mr Brown has reconsidered the NoR and supporting documents and the submissions received.

In relation to 5 Whangapouri Road Mr Brown states:

...it appears that the Navigation Homes demonstration dwelling currently on site is a commercial operation. It sits close to, and parallel with, the likely location of Counties Energy's main substation building and transformers. However, 1.8-2.0m high, timber batten fencing has been extended both sides of the driveway to effectively screen most of that property from Whangapouri Road and the Counties Energy site across it. Visitors to the show-home and future occupants using the first level of that dwelling would remain exposed to the proposed substation, but typically not those at and near natural ground level.

*Moreover, planting within that property could be employed to augment this existing screening, while the mitigation planting proposed down the western (Whangapouri Road) side of the substation would further assist in this regard. During the period that 5 Whangapouri Road continues to be employed in its current role, such planting has the opportunity to mature and should offer a significant level of buffering in relation to no.5 within 5-10 years. Consequently, I am of the opinion that **effects in relation to 5 Whangapouri Road would still be of a moderate order in the short to medium term (out to approximately 10 years) and of a low-moderate order, at most, beyond - taking into account the fencing already undertaken and my recommendations in relation to the proposed conditions** [emphasis added]*

As outlined for Submission 1 Mr Brown has proposed the "Indicative Planting Plan" be revised to address his concerns about the proposed planting. Relevant to this submission are his recommendations about the level and robustness of the planting required along the Whangapouri Road boundary of the proposed substation. I will not repeat his comments here again about this.

I note that Mr Brown's recommended changes to the Indicative Planting Plan will not only benefit 5 and 14 Whangapouri Road, but also other neighbouring properties such as 21A Whangapouri Road. See section 4.3.5 in relation to the visual impact on the wider environment.

I adopt the findings of Mr Brown in relation to the visual effects on 5 Whangapouri Road. Mr Brown's recommendations are discussed in more detail in section 4.3.5 of this report.

As discussed above for submitter 1, a matter that may have been raised through Counties Energy's liaison with the submitter and others is that of the potential for the lines to be brought to the site by way of them being undergrounded some distance away from the subject site, possibly on the other side of SH22. Such an approach could serve to lessen the potential visual effects of the development of the substation.

With regards to effects on property value this has been addressed under consideration of Submission 1.

Consultation and notification process

Notification is discussed in section 3 of this report.

Counties Energy may be able to advise if it has had discussions with the submitter and what the outcome of those discussions are.

Franklin Local Board views

The Franklin Local Board considered providing their views on the NoR at their meeting on 22 March 2022. The resolution from this meeting sets out the following views: -

That the Franklin Local Board:

- a) provide local board views on the Notice of Requirement by Counties Energy for a new substation at 8 Whangapouri Road, Karaka as follows:
 - i) generally support the Notice of Requirement for a new substation at 8 Whangapouri Road, Karaka
 - ii) note and support Counties Energy commitment to suitable planting that would offset visual impact
 - iii) request that liaison with affected neighbours is undertaken in a timely manner
 - iv) note that Counties Energy may continue to identify suitable sites in future, where there may be less impact on neighbours
- b) appoint Andrew Baker, Chair, to speak to the local board views at a hearing (if one is held) on the Notice of Requirement
- c) delegate authority to the chairperson of Franklin Local Board to make a replacement appointment in the event the local board member appointed in resolution b) is unable to attend the Notice of Requirement hearing.

Comment:

Item (i) generally supports the NoR and is noted.

Item (ii) is noted. Further discussion about what planting council's expert considers suitable to mitigate visual impact is contained in the consideration of submissions above and in section 4.3.5 of this report. Counties Energy might be able to provide further comment about the mitigation planting they propose.

Items (iii) and (iv) are noted. Counties Energy may be able to provide further information about when it has or will liaise with affected neighbours and the outcome of this liaison. Counties Energy may also be able to advise whether it is continuing to seek alternative sites for the proposed substation.

4.3 Effects on the environment

4.3.1 Effects that must be disregarded – trade competition

I do not consider that there are any trade competition effects that should be disregarded.

4.3.2 Effects that must be disregarded – written approval

Section 149ZCE(e) requires that any effects on any person who has given written approval must be disregarded.

Waka Kotahi NZ Transport Agency (**Waka Kotahi**) have provided, and not withdrawn, a letter of approval.

The owners/occupiers of 8 Whangapouri Road, Karaka (Lot 2 DP 473807) have also provided, and not withdrawn, a letter of approval.

See Attachment 1 for the written approvals.

4.3.3 Effects that may be disregarded – permitted baseline assessment

Sections 149ZCE(b) and 149ZCF(2)(a) provide that a territorial authority may disregard an adverse effect of the activity if a rule or national environmental standard permits an activity with that effect (this is referred to as the permitted baseline).

The permitted baseline refers to the adverse effects of permitted activities on the subject site.

The Environment Court in *Beadle v Minister of Corrections* A074/02 accepted that the obligation to apply permitted baseline comparisons extended to Notices of Requirement. In *Nelson Intermediate School v Transit NZ* (2004) 10 ELRNZ 369, the Court accepted that the permitted baseline must define the “environment” under section 5(2) (b) and (c) and from that section 171(1). When considering the adverse environmental effects of a proposal, the effects may be considered against those from permitted baseline activities. As the effects resultant from permitted baseline activities may be disregarded, only those environmental effects which are of greater significance need be considered.

In *Lloyd v Gisborne District Council* [2005] W106/05, the Court summed up the three categories of activity that needed to be considered as part of the permitted baseline as being:

1. What lawfully exists on the site at present
2. Activities (being non-fanciful activities) which could be conducted on the site as of right; i.e., without having to obtain a resource consent (see for example *Barrett v Wellington City Council* [2000] CP31/00).

3. Activities which could be carried out under granted, but as yet unexercised, resource consent.

Application of the permitted baseline approach is at the discretion of the council and depends on the circumstances of the NoR. The permitted baseline in this case has been assessed against the above tests and includes but is not limited to the following:

- Electricity transmission and distribution infrastructure including distribution substations, substations within an existing or new building, pole mounted transformers, overhead electricity lines up to and including 110kV compliant with standards³⁰
- A range of rural activities compliant with standards including farming, greenhouses, on-site primary produce manufacturing and on-site produce sales³¹
- Home occupations complying with zone standards³²
- Development compliant with the Rural – Mixed Rural Zone or Infrastructure standards including:
 - maximum building height for non-residential buildings of 15m³³
 - minimum yards including 12m side and rear yards for buildings other than dwellings, 10m front yard and 20m front yard for sites adjoining arterial roads³⁴
 - maximum height for support structures for electricity lines and telecommunication lines of 25m³⁵
 - 55 or 45 dB L_{Aeq} noise limit depending on times of day for substations at notional boundary for rural zones³⁶
 - compliance with specific guidelines for electricity transmission and distribution (electric and magnetic fields [EMF]) and compliance with

³⁰ AUP E26 Infrastructure, Table E26.2.3.1 Activity table – Network utilities and electricity generation – All zones and roads (permitted within rural zones and adjacent roads)

³¹ AUP H19 Rural zones, Table H19.8.1 Activity table – use and development (Mixed Rural Zone)

³² AUP H19 Rural zones, Table H19.8.1 Activity table – use and development (Mixed Rural Zone)

³³ AUP H19 Rural zones, Standard H19.10.2. Building height

³⁴ AUP H19 Rural zones, Standard H19.10.3, Minimum yards setback requirement Table H19.10.3.1

³⁵ AUP E26 Infrastructure, E26.2.5.2. Standard (3) Height

³⁶ AUP E26 Infrastructure E26.2.5.3 Standard (2)

specific New Zealand Standard for Radiofrequency Fields (RF Fields).³⁷

Further discussion of permitted activities is included in sections 4.3.5 and 4.8 of this report.

In summary I consider the permitted baseline is relevant in the consideration of this NoR. The AUP provisions provide a relatively permissive approach to the establishment, operation and maintenance of infrastructure. Overall the provisions set a baseline of effects that are considered acceptable in the context of the provision of infrastructure. In particular Chapter E26 Infrastructure provides for a range of activities that can be undertaken without the need for a resource consent.

In addition to this the Mixed Rural Zone provisions in Chapter H19 Rural zones also set a baseline of effects that are considered acceptable within the zone.

4.3.4 Positive effects

The AEE identifies that the primary positive effect of the new substation is that it will ensure a secure supply of electricity to the planned residential, rural and industrial activities provided for in the AUP, and to meet the forecast electrical demand growth for the Pukekohe North area, including residential developments in Paerata Rise, Wesley, and Karaka North. The AEE also states that a number of plan changes are proposed within the area they service.³⁸ See section 2.3 for further discussion of this.

I agree with this assessment of the positive effects of the NoR. I note that should these proposed plan changes be granted they will enable a significant amount of growth in the upcoming years in the area located several hundred metres to the east of the subject site.³⁹

4.3.5 Adverse effects

Effects on the environment are addressed in section 8 of the NoR Report. The following discussion addresses effects in the same order they are addressed in the AEE with additional matters at the end. The relevant council specialists' reports are referred to and are included in Attachment 1. Submissions have also been considered and are referred to where relevant.

³⁷ AUP E26 Infrastructure, E26.2.5.2 Standards (6) and (7)

³⁸ PC48 (Drury Centre Precinct), PC49 (Drury East Precinct), PC50 (Waihoehoe Precinct), PC51 (Drury 2 Precinct), PC 61 (Waipupuke)

³⁹ PC61 Decision made to decline the plan change December 2021. This decision has been appealed. At the time of writing this report no other decisions on these plan changes have been made.

I note that I do not support Counties Energy's approach to proposed Condition 3 (what must be included in an Outline Plan) and conditions containing references to compliance with AUP provisions or other general guidelines. I consider this to be a general drafting issue rather than topic specific. Therefore I will briefly outline whether this effects the conditions I recommend for each topic but will provide a more detailed discussion at the end of this section.

Landscape and visual

Requiring authority AEE and supporting documents

Effects on landscape and visual amenity are addressed in the AEE and the Landscape and Visual Assessment for Pukekohe North Substation prepared by Align Ltd (LVIA Report) contained in Appendix D⁴⁰ of the NoR. These are summarised below.

The LVIA Report includes a description of the location and landscape surrounding the proposed substation and sets out the methodology used to make the landscape and visual assessment. The assessment uses five viewpoints it considers representative of the effects on the surrounding landscape and receiving audiences. Photomontages (using modelling and existing photographs) depicting the substation with mitigation planting at five and 10 years of growth are shown for these viewpoints. The LVIA Report notes that the modelling used should only be treated as indicative because the site-specific design is not confirmed at this stage.

The key mitigation measure proposed in the LVIA Report is an "Indicative Landscape Plan" (Figure 13 in the LVIA Report) that shows the proposed mitigation planting around the site. An "Indicative Plant Schedule" (Table 4.1.b.i in the LVIA Report) is also included. The LVIA Report notes that the Indicative Landscape Plan is a working draft only and that the design, plant locations and species will be refined as part of the Outline Plan of Works. The LVIA Report also includes an assessment against relevant objectives and policies in the AUP.

The LVIA Report concludes:

In the short term, substation implementation will be highly visible prior to mitigation planting reaching maturity around the perimeter of the site. The short-term visible effects contrast the existing character of the site which is largely devoid of development and currently present as a low-density residential site on the corner of a busy intersection. The addition of the substation will reduce open space and as a result, amenity values will be reduced for adjoining neighbours, and to a lesser extent, for passing traffic.

⁴⁰ This includes Appendix D – A and Appendix D – B.

The reduction in amenity is considered only temporary within a 0–5-year time frame, as the maturing screen planting will add value to the site. Mitigation planting includes native species of Titoki and Harakeke and introduces habitat and food sources for native fauna and provides positive effects for stabilising soils and improving drainage. Within a 5–10-year time frame, site changes will be positive with the establishment of mature planting screening the visible built form and enhancing biodiversity.

The effects of the proposal on the wider rural landscape are limited by comparison to the immediate landscape. Within the wider rural landscape, the visual effects are shown to be absorbed into the pre-existing features of the landscape, including the existing vegetation, undulating landform, and the concentration of buildings and infrastructure surrounding the site. The visual effects on the wider rural landscape are low overall, and the magnitude of the effects are considered acceptable over a timeframe greater than 5 years when the screen planting has had time to mature.

...

The visual assessment in Section 6.1 considered the overall effects of the proposal to be Low to Moderate. Close-up perspectives illustrate greater visual impact of the proposal on the immediate environment and the neighbouring properties. Broader landscape views absorbed the proposal within the existing features of the landscape. Mitigation planting around the perimeter will lessen the visual impact and enhance amenity of the site over a timeframe exceeding 5 years.

Overall, the magnitude of effects resulting from the proposal are considered acceptable for the site, which is not considered highly valued rural land. It is worth noting that as the landscape continues to change over time because of zoning provisions and with that, the landscape characteristics which are valued will also change. As the Mixed Rural Zone provides for integration of non-rural activities, the substation designation will provide the necessary infrastructure to facilitate changes from rural to residential character.

Based on the LVIA Report the AEE concludes that "...the proposal will result in no adverse landscape and visual amenity on the character of the rural environment and residential neighbours to the west."

When lodged the NoR contained conditions relating to landscape and visual amenity. In summary these required:

- Proposed Condition 3: the Outline Plan to include the landscaping proposed (i.e. s176A of RMA)
- Proposed Condition 5: consultation with Ngāti Tamaoho about the switchroom colour and finish
- Proposed Condition 14: the preparation of a detailed landscape plan in general accordance with the landscape concept plan contained in the LVIA Report
- Proposed Condition 15. all planting and landscaping to be maintained in good condition for the duration of the designation

- Proposed Condition 16. the exterior cladding and colours of the switchroom to be recessive to modulate the building form and surfaces.

Counties Energy provided further information about visual effects as part of their section 92 response. They also proposed the following additional conditions to help mitigate adverse visual effects:

6A. Counties Energy shall consult with the owners of 5 & 14 Whangapouri Road during the detailed design process to ensure that their suggestions and preferences are taken into account when preparing the detailed Landscaping Plan required by Condition 3(e).

16A. The maximum height of poles (excluding insulators) and support structures within the designated area shall be 17m, and all other buildings must not exceed the maximum 15m height limit for buildings in rural zones.

16B. Buildings must not be located within 10m of the Whangapouri Road boundary.

These conditions were included in the Working Draft Conditions (5 December) (see Attachment 1).

Specialist review

As outlined in section 4.2.2 Stephen Brown (consultant landscape architect) has reviewed the NoR and supporting information, submissions and relevant advice from other council experts. His advice is in Attachment 2 of this report.

Mr Brown notes there are four key changes to the environment since his initial assessment in November, including:

- the construction of a house at 5 Whangapouri Road
- the cluster of residential development off Karaka School Lane has been further developed
- the removal of shelter belt planting along Bycroft Road
- a line of trees along the western side of a residence at 364 Karaka Road has been partially removed and the rest of the shelterbelt appear to be dying.

Mr Brown concludes that these changes to the environment would not appreciably change the relationship of the substation with the wider, largely (but not entirely) rural setting. Mr Brown states:

Away from Karaka and Bycroft Roads, that landscape setting remains largely dominated by swathes of pasture intermixed with shelterbelts, pockets of riparian and amenity planting, farmhouses and farm buildings. A scattering of glasshouses, orchards, hedgerows and residential clusters is also apparent within the NOR site's wider surrounds.

However, closer to both roads, the local landscape comprises even more of a 'mixed bag', with paddocks both sides of Karaka Road interspersed with lifestyle / large lot blocks, the aforementioned residential cluster near Karaka Primary School (off Blackbridge Road), a more sporadic array of residential properties that are both stand-alone and in small pockets, and even an apparently unused pack-house or storage shed of considerable size at 417 Karaka Road – close to the houses mentioned above on 14 Bycroft Road.

With regards to potential effects, Mr Brown concludes:

I remain of the view that the substation would not have a significant effect in relation to the character of the largely rural landscape around Karaka Road and nearby parts of both Whangapouri and Bycroft Roads.

*... the proposed substation would be a relatively minor component of this clearly discernible transition away from a 'rural' environment that was, until quite recently, still largely dominated by farmland and pastoral farming activities. In my assessment, the proposed substation's effects would **remain of a low order**, much as described in my first Supplementary Report of November 2021.*

*... I further consider that effects in relation to the residence at 364 Karaka Road and those at 14 Bycroft Road would also be of **a low order**. Views from 364 Karaka Road would be buffered by the rising ground east of the NOR site, together with the residential development and garden vegetation next to it; while the two semi-detached houses at 14 Bycroft Road would still be largely screened by the remaining cryptomeria shelterbelt described above and their general orientation – which is more towards Karaka Road and the derelict packing shed next door than the subject site. Other properties nearby, including those at 19, 20 and 30 Bycroft Road, would still be screened by other vegetation – both shelterbelts and ample amenity planting – between them and the NOR site.*

In relation to 5 and 14 Whangapouri Road, Mr Brown remains concerned about the adverse visual effects on these properties and their occupants. See section 4.2.2 of this report for a detailed discussion about visual effects in relation to these properties. In summary Mr Brown concludes the adverse visual amenity effects on these properties are likely to be:

- 5 Whangapouri Road: of **a moderate order** in the short to medium term (out to approximately 10 years) and of a **low-moderate order**, at most, beyond - taking into account the fencing already undertaken and my recommendations in relation to the proposed conditions
- 14 Whangapouri Road: **high level of effect** in the longer term without certainty about the height and depth of additional planting along that boundary. In particular Mr Brown retains concerns about the longevity of the existing Pittosporum hedge relied on by the LVIA Report to mitigate effects and notes it only extends along the western half of the boundary between the two sites.

Mr Brown also raises concerns about the quality/content of the Indicative Planting Plan (Figure 13 in LVIA Report) and identifies specific issues he has with it.

Mr Brown also notes that the condition proposed by Mr Freke to restrict the height of any planting on the southwestern corner of the site would affect the landscaping planting proposed.

Mr Brown has also expressed concern how the Indicative Planting Plan and the Indicative Planting Schedule (Table 4.1.b.i in the LVIA Report) might be interpreted when the detailed landscape plan required by the conditions is prepared and reviewed by council. In his opinion, if the future detailed landscape plan aligned with Figure 13 (as it currently is in the LVIA Report) then the level of screening, buffering and general mitigation would not likely be achieved to the extent that he considers necessary, or even to the extent the LVIA Report simulations indicate. Therefore Mr Brown recommends that Counties Energy revises the "Indicative Planting Plan" to address the following:

- *Provides for a screen of tall planting (4-5m within 10 years and 8m thereafter), at least two rows deep, that lines the entire boundary shared with 14 Whangapouri Road. Such planting does not have to comprise native species, but must be evergreen.*
- *Similar planting should line the site's western (Whangapouri Road) and southern (Karaka Road) boundaries, again incorporating at least two rows of tall planting at least two rows deep.*
- *The depth and height of planting indicated above should be retained near the intersection of Karaka Road with Whangapouri Road, irrespective of Chris Freke's road sightline. This may well mean utilising more of the subject site than is currently indicated for such planting.*

Mr Brown supports proposed Conditions 15, 16, 16A and 16B. However he considers proposed Condition 3(e) needs further amendments and proposes the following changes:

Prior to commencement of construction, the requiring authority must submit an Outline Plan to the territorial authority in accordance with section 176A of the RMA to allow the territorial authority to request changes before construction commences. The Outline Plan will include:

- (e) *A detailed Landscape Plan generally in accordance with the landscape concept plan set out in the LVIA prepared by Align Ltd shall be prepared by a suitably qualified person and submitted in conjunction with the Outline Plan of Works to Auckland Council Resource Consents department for approval. That plan shall include details about the type of species to be employed, their spacing, their size at the time of planting, and shall be accompanied by a maintenance programme. Such planting shall include taller native species in at least two rows along the boundaries with Karaka Road, Whangapouri Road and the private property at 14 Whangapouri Road, and shall ensure the level of screening indicated in Align's LVIA report simulations for 0-5 years and 5-10 years.*

Overall Mr Brown concludes with the retention of proposed Conditions 15, 16, 16A and 16B and if his recommendations about the revised Indicative Planting Plan and changes to Condition 3(e) are undertaken “...it is my opinion that the amenity and landscape effects generated by the substation proposal would be acceptable from a landscape / amenity standpoint.”

Planning review:

I adopt the findings of Mr Brown in relation to adverse landscape and visual amenity effects of the proposal.

I support Mr Brown’s recommendations that Counties Energy revise the Indicative Planting Plan for the reasons set out above. I consider that Counties Energy should provide a revised indicative landscape plan and updated LVIA Report at the hearing.

I also note that I agree with Submission 1 that there appears to be a contradiction, or at the least a lack of clarity, around what planting is proposed on each boundary and what the expected height of these plantings are expected to reach. In particular I note that the indicative planting plan (Figure 13 in the LVIA Report) shows:

- small trees (northern boundary)
- native hedging (western and eastern boundaries)
- native tree groupings (southern boundary – Karaka Road)
- low native planting (southern boundary – Karaka Road).

In my opinion it is unclear how these descriptions on the plan relate to the “Indicative Plant Schedule” shown in the LVIA Report (Table.1.b.i), which identifies titoki and harakeke. While the LVIA Report states that the planting layout is a working draft, and the plant locations and species will be refined and confirmed through the outline plan, Condition 3(e) as proposed by Counties Energy requires the outline plan to contain a detailed landscape plan **to be generally in accordance** with the “landscape concept plan” set out in the LVIA Report.

I consider it important that the conditions provide a clear framework as to how adverse visual effects of the proposal will be mitigated. Given that one of the main methods of mitigation is the planting that will surround the substation, and proposed Condition 3(e) requires the future landscape plan to generally align with the Indicative Planting Plan, I consider it critical that the Indicative Planting Plan clearly shows what is required to mitigate the adverse visual amenity effects and to achieve the level of screening expected by both Mr Brown and the simulations shown in the LVIA Report.

Therefore I also agree with Mr Brown that the condition relating to the Detailed Landscape Plan required in the Outline Plan needs to be amended. However I do consider that this condition should be drafted differently than recommended by Mr Brown.

As previously mentioned, I recommend a number of amendments to proposed Condition 3. These are discussed in more detail at the end of this section. As a consequence I recommend a new condition that clearly sets out the purpose of the Detailed Landscape Plan that is required as part of the Outline Plan.

I have drafted Condition 14A based on Mr Brown's recommended changes to proposed Condition 3(e). Mr Brown has indicated that he supports Condition 14A as I have drafted it.

14A. The purpose of the Detailed Landscape Plan required in Condition 3A is to ensure planting around the substation mitigates the adverse visual and amenity effects of the substation on the neighbouring properties and wider environment by creating a dense screen of permanent vegetation. The detailed landscape plan must be prepared by an experienced and qualified landscape architect or landscape professional and must:

- a) Provide sufficient space and depth of planting – incorporating at least two rows of taller planting along the boundaries shared with Karaka Road, Whangapouri Road and 14 Whangapouri Road – to achieve the level of screening indicated in the Landscape and Visual Assessment (Align Ltd, version 2, October 2021) simulations for 0-5 years and 5-10 years.
- b) Detail the type of species to be planted, their spacing, and their size at the time of planting
- c) Ensure the planting required by clauses a) and b) is set back on the southwestern corner of the site to ensure compliance with Condition 14C.

I have removed the requirement that the Detailed Landscape Plan generally be in accordance with the Indicative Landscape Plan set out in the LVIA Report. Until the council is certain the Indicative Landscape Plan has been revised appropriately and the LVIA Report updated I do not consider it appropriate that the condition relies on this. If the plan and report are revised as recommended, then this could be included back into Condition 14A. Regardless of if this happens, I consider the rest of Condition 14A should be retained as well because it sets out the purpose of the Detailed Landscape Plan and the level of screening this is required to mitigate the effects.

I support proposed Condition 15 which requires the maintenance of landscaping and planting. I consider this appropriate to ensure such planting continues to provide the mitigation intended.

I also recommend an additional condition which specifies when the Detailed Landscape Plan must be implemented by. Given the time it will take for any planting of provide the level of screening needed to achieve the mitigation level eventually expected, I consider it important that the conditions provide certainty when, at the latest, this must be done by. I note it is not uncommon for conditions on designations to specify when the planting must be implemented by. I note Counties Energy substation designation 3010 has a similar condition.

14B. During the planting season immediately following the completion of bulk earthworks on the site, the Requiring Authority must implement the detailed landscape plan required by Condition 3A.

I also note there is the opportunity for Counties Energy to start the mitigation planting even earlier than this. The earlier the planting is established, especially if it is before construction works on the substation starts, the quicker and more effective the screening will be to mitigate adverse effects.

I also support the retention of proposed Conditions 16, 16A and 16B (with minor amendments) to help manage the adverse visual effects of the substation buildings and structures. I consider these are important to manage building/structure envelopes both while the planting is established and once it reaches maturity.

I note AUP permitted standard E26.2.5.2(3) provides for the maximum permitted height for “substations within a building” to comply with that of the underlying zone. The Mixed Rural Zone permits a maximum height of 15 metres for all buildings (and structures⁴¹) other than dwellings.⁴²

Proposed Condition 16A is consistent with this in relation to buildings and would therefore limit the height of the switchroom to the same height of other non-residential buildings provided for in the zone.

AUP permitted standard E26.2.5.2(3) also provides for a maximum permitted height limit of 25 metres for “support structures for electricity lines and telecommunication lines”.

I note that the Mixed Rural Zone does not manage the maximum gross floor area of most non-residential buildings.⁴³

While proposed Conditions 5, 16 and 16A manage the exterior appearance of any buildings (i.e. the switchroom) I consider there is the opportunity for Counties Energy to further consider the design of such buildings to be developed in cognisance of the nature of the locality – inclusive of the nearby rural residential properties at 5 and 14 Whangapouri Road. The opportunity exists for Counties Energy to do more than the bare minimum and avoid completely utilitarian design. There are examples of substations in the Auckland region where substation design and their exterior finishes enable a more sympathetic fit within the local landscape. Counties Energy may wish to discuss this and consider whether they are willing to agree to an additional condition(s) in this regard.

⁴¹ AUP Chapter J, Definition of “building” includes “structure”

⁴² AUP H19.10.2

⁴³ AUP H19.10.5

Overall I consider the adverse visual amenity effects can be appropriately managed by my recommended Conditions 3A, 14A, 14B, 15, 16, 16A and 16B contained in Attachment 4. I also consider Counties Energy have the opportunity undertake the mitigation planting earlier than required and to do more than the bare minimum and avoid completely utilitarian design of the substation.

Noise

Requiring authority AEE

The NoR Report does not include an acoustic assessment, noting that this will be undertaken when the design of the substation is determined through the outline plan of works. However a baseline assessment was provided. The AEE states this is to:

... provide an indication of the likely noise effects from the equipment likely to be located on the site. This assessment relies on relevant data from the Counties Energy substation at Barber Road, Bombay which is similar in scale and design

...

The transformer power sound output is expected to be 67.5dB, but this can be confirmed at the detailed design stage as part of the Outline Plan of Works.

...

Based on the experience of the design engineers, we are satisfied that the noise standards set out in the AUP can be complied with and would accept a designation condition to this effect.

The AEE does not specifically consider vibration effects.

When Counties Energy first lodged the NoR it contained three conditions (Conditions 9, 10 and 11) relating to the management of construction and maintenance noise.

There were no conditions proposed relating to operational noise or vibration, however the AEE states that a condition requiring compliance with the AUP noise standards would be acceptable to Counties Energy.

Following council's section 92 request Counties Energy proposed a new condition (Condition 11A) relating to operational noise which largely duplicated the AUP permitted noise standard for substations E26.2.5.3(2).

Condition 11A: Noise from the substation must not exceed the following noise limits when measured within the notional boundary of all adjacent properties:

- a. 55 dB L_{Aeq} between Monday to Saturday 7am to 10pm and Sundays 9am to 6pm and
- b. 45 dB L_{Aeq}/75 dB L_{Amax} for all other times

Advice note: The noise limits set out in this Condition shall not apply to emergency work required to re-establish continuity of supply, work urgently required to prevent loss of life or other personal injury, or commissioning works at the substation site, but all practicable steps shall be undertaken to control noise and to avoid adverse noise effect.

However as outlined in section 1.4 of this report Counties Energy also proposed to delete many conditions before the NoR was notified. This included proposed Conditions 9, 10 and 11 relating to construction noise.

Following further discussions with Counties Energy the Working Draft Conditions (5 December) were produced as a way forward. Proposed Conditions 9, 10 and 11 were retained in this draft set of conditions.

Specialist review

As outlined in section 4.2.2 of this report council's noise specialist Andrew Gordon has reviewed the NoR, Counties Energy's section 92 response and submissions received and provided advice which is included in Attachment 2.

Mr Gordon outlines AUP noise standards E25.6.3(1) and E26.2.5.3(2) and notes that E26.2.5.3(2) sets the operational noise limits for substations, therefore is relevant to this proposal. This standard has the same decibel limits as E25.6.3(1) and requires:

Noise from substations must not exceed the following noise limits when measured within the boundary of a residential zone site or within the notional boundary of a rural zone site:

(a) 55 dB LAeq between Monday to Saturday 7am to 10pm and Sundays 9am to 6pm and

(b) 45 dB LAeq/75 dB LAmax for all other times.

In relation to construction of the substation, Mr Gordon states:

...permitted noise standards are set out in E25.6.27 and permitted vibration standards are set out in E25.6.30 (1). However, as the application is for a designation these standards would not apply. It is noted the noise standards specified in E25.6.27 are the same as noise standards specified in NZS 6803:1999 (referenced in the proposed conditions).

In regard to construction vibration, there is no New Zealand Standard for construction vibration. The limits specified in AUP (OP) E25.6.30 (1) can be referenced for guidance purposes and used to inform appropriate mitigation measures to ensure vibration levels are reasonable. This approach aligns with section 16 of the RMA: - Duty to avoid unreasonable noise...

In summary Andrew Gordon concludes:

- Counties Energy have not provided an acoustic assessment but provides a baseline assessment based on a transformer sound power level of 67.5 L_{WA}. Based on his experience Mr Gordon considers this sound level appears to be representative. Noise generated from substations can include:
 - Transformer noise is generally recognised as tonal in character and so “special audible characteristics” are relevant when assessing noise effects. Transformers can also have fans for air circulation which can cause potential noise issues.
 - The switchroom building may include outdoor condenser units – these would create noise similar to domestic external heat pump cabinets. Although not specified in the AEE Mr Gordon expected noise could be mitigated, if required, to enable compliance without any practical difficulties given the proposed location of the switchroom compared to the relative distance of the notional boundaries.
 - Lack of maintenance and/or malfunctioning equipment could potentially give rise to abnormal (i.e. higher and/or more noticeable) noise emissions. Adherence to a routine inspection and maintenance programme would ensure this potential scenario is avoided
- The subject site is located on a busy road (i.e. SH22), therefore ambient and background noise levels will be elevated compared to a remote rural road with less passing traffic.
- Overall, noise effects on submitters will be reasonable, noting:
 - 14 Whangapouri Road contains an activity sensitive to noise (i.e. residence) which should be treated as being occupied, the same as any dwelling. The concept plan, although not finalised, indicates that the transformers will be approximately 21m to the nearest notional boundary of 14 Whangapouri Road.
 - Effects on the existing dwelling on 8 Whangapouri Road can be disregarded as the owners have given written approval.
 - Operational noise is likely to be unnoticeable for the new dwelling at 5 Whangapouri Road and will have no effect on the dwelling at 21A Whangapouri Road.
- Adverse noise effects on rural amenity will be avoided.
- The site layout and activities can likely be designed to enable compliance with permitted noise standards in E26 without any practical constraints.
- Recommends that proposed Condition 11A relating to operational noise is retained. This condition requires compliance with the same decibel limits set out for substations in Chapter E26.

- Construction noise and vibration effects should be managed via a Construction Noise Management Plan to ensure temporary construction effects are reasonable, and noise is compliant with NZS 6803:1999 Acoustics – Construction Noise.
- Recommends that proposed Conditions 9, 10 and 11 relating to the management of construction noise are retained with minor amendments. In particular Mr Gordon notes:
 - Condition 9 would ensure temporary construction effects are reasonable, and compliant with the relevant NZ Standard.
 - Condition 10 specifies the hours of construction (consistent with the relevant NZ Standard) and if construction is required outside these normal hours, then how the lower long term duration noise limits will be addressed in the CNVMP
- Recommends the addition of Condition 9A which would require the preparation of a Construction Noise and Vibration Management Plan (CNVMP) prior to works starting. This would demonstrate that construction noise will be compliant with NZS 6803:1999 Acoustics – Construction Noise.

Planning review:

I adopt the findings of Mr Gordon in relation to the potential noise effects likely to be generated from the proposal and the conditions required to appropriately manage and mitigate adverse noise effects arising from construction and operation of the substation.

In my opinion it is appropriate that the NoR include conditions for both construction and operation of the proposal given these will generate different noise effects. While the subject site is within the Mixed Rural Zone which anticipates a different level of amenity than expected in other areas that provide for rural lifestyle activities it never-the-less expects a certain level of amenity in relation to noise.

With regards to operational noise Mr Gordon supports the retention of Condition 11A proposed by Counties Energy. As Mr Gordon has noted this imposes the same decibel limit as Chapter E26 does for the operation of a substation which in turn is the same limit for the underlying zone.

With regards to noise generated from construction, Mr Gordon recommends the retention of Conditions 9, 10 and 11 with minor amendments. I note that construction noise is inherently noisy and therefore can be disruptive to neighbouring properties. However these effects are temporary in nature and adverse effects can generally be avoided or mitigated if the noise does not occur at inconvenient times. I consider it appropriate that these conditions are retained. I note that Conditions 9, 10 and 11 are generally consistent to conditions contained in Counties Energy designation 3009. I consider that the amendments recommended by Mr Gordon are minor and help with the readability of the conditions

With regards to Condition 9A recommended by Mr Gordon I agree that requiring a management plan is appropriate. I note that Condition 10 as originally proposed by Counties Energy implies that a CNVMP will be prepared by reference to the abbreviation "CNVMP" however this is not clear. I consider that the addition of Condition 9A provides clarity to what a CNVMP is and that one is required to set out how construction noise will be managed and compliance with the relative NZ Standard will be achieved. I recommend further minor amendments to Condition 9A to require the CNVMP to be provided with the Outline Plan.

However, I note that proposed Condition 3(g)(iii) refers to compliance with AUP Rule E26.2.5.3(2). As previously mentioned, I consider that conditions should not refer to specific provisions in the AUP and that it is better that these are instead contained in the conditions to avoid any potential issues with implementation.

Therefore I recommend a number of changes to proposed Condition 3. This is discussed in more detail at the end of this section.

In this instance AUP Rule E26.2.5.3(2) is replicated in proposed Condition 11A, therefore deleting proposed Condition 3(g)(iii) does not in my opinion "lose" anything. Furthermore I have recommended in Condition 3A that the Outline Plan show how the proposal is compliant with the conditions.

Traffic/vehicle access

Requiring authority AEE

The NoR Report does not include a transport impact assessment. The assessment of transport/traffic effects is contained in section 8 of the NoR.

The NoR Report, concept plan (Appendix B of NoR Report) and Infrastructure Design Report (Appendix C of the NoR Report) identifies there will need to be three vehicle crossings/accessways from Whangapouri Road onto the subject site to provide:

- access to the residential lot created once the site is subdivided
- main access to the substation
- secondary access to the substation.

In relation to the vehicle crossings for the substation section 3 of the NoR Report states:

A crossing will be installed 18-25m from the intersection with SH22 and provide the main access to the substation. The vehicle crossing is to meet Auckland Transport GD020B-1B for rural crossings, with gates set back 13m from the edge of road. During operation of the substation the crossing will only see 2-4 vehicles per week. A Crossing will be installed at the middle of the site for maintenance access. The crossing will be installed for intermittent access for maintenance and will need to be sized to allow for large vehicles...

It is considered proposed driveway [for residential lot] is adequately from proposed transformers and will not give rise to any safety issues

The AEE concludes “...the site has sufficient frontage to be able to accommodate an entrance in compliance with the engineering standards and access requirements. The specific location will be determined at the time of detailed design...”

In relation to traffic caused by the construction or operation of the substation the AEE states:

The traffic that will arise during the construction of the substation would be comparable to any similarly scaled project. There will be heavy vehicle movement during this period for construction materials and for the delivery and installation of the transformers and switchgear.

Once the construction has been completed, the frequency of traffic movements will be very limited as the substation will not have an office or any full-time staff. The only traffic into the site will be from maintenance staff from time to time.

The following conditions are included in the NoR as it was lodged. These relate to vehicle crossings and the management of construction traffic:

- Condition 3 requires the outline plan of work to include vehicle access, circulation and provision of parking.
- Condition 8 requires the Construction Environmental Management Plan to contain location of access points and procedures to manage construction vehicle ingress/egress.
- Condition 23 requires “*The vehicle crossing for the sub-station must be designed and formed in accordance with either the GD020A Rural Vehicle Crossing standard set out in Auckland Transport’s Code of Practice (ATCOP) or VX0303 Rural Crossing Standards set out in Auckland Transport’s Transport Design Manual (TDM), whichever is operative at the time of construction.*”
- Condition 24 requires “*Prior to operation of the substation, the berm must be re-instated to Auckland Council’s “Code of Practice for Working in the Road” (<https://at.govt.nz/about-us/working-on-the-road>).*”
- Condition 25 requires a Construction traffic Management Plan to be prepared by a suitably qualified person and to be approved by Auckland Council and Auckland Transport.

As outlined in section 1.4 of this report Counties Energy proposed to delete many conditions before the NoR was notified. This included proposed Conditions 8, 23, 24 and 25, although Conditions 23 and 24 were in part addressed by the further amendments Counties Energy proposed to Condition 3.

While these conditions were not agreed between the council, Auckland Transport and Counties Energy it was agreed that they provided the basis to move forward, and other matters could be addressed as substantive matters through the hearings process. These conditions are the Working Draft Conditions (5 December) contained in Attachment 1.

Specialist review

As outlined in section 4.2.2 of this report Chris Freke (Auckland Transport) has reviewed the NoR, Counties Energy's section 92 response and submissions received on behalf of the council and provided advice which is included in Attachment 2. Mr Freke provided advice prior to notification of the NoR and now as part of this section 42A report. Mr Freke's memo dated 31 March 2022 is included in Attachment 2 of this report.

As part of his initial advice Mr Freke generally agreed with the NoR Report that the operation of the substation was unlikely to generate an increase in traffic that would cause adverse effects. However he did raise concerns relating to future vehicle access/crossings, the effects of landscaping on the southwestern corner of the site, and stormwater discharge onto the road, and suggested conditions to manage these.

Mr Freke's subsequent advice is summarised below.

Mr Freke helpfully provides the following description of the traffic context of the site.

The proposed site is on the corner of the following roads

- I. Whangapouri Road a low volume local rural road carrying around 500 vehicles per weekday*
- II. Karaka Road (State Highway 22) is a high volume state highway which carries 22,000 vehicles per day⁴⁴*

The two roads intersect at a crossroad with Bycroft road on the opposite side of SH22. There is a painted pocket provided for vehicles wishing to turn right from SH22 into either side road. There are stop controls on both intersection approaches to SH22 and the intersection has lighting.

There has only been one non injury accident at the intersection during the last 5 years. This was a night-time accident involving an alcohol impaired driver on SH22 who lost control and ended up in Whangapouri Road.

Waka Kotahi New Zealand Transport Agency (WKNZTA) manage SH22 and have a 5 metre wide designation for road widening along the SH22 frontage of the site. The implications of this are that any conditions set in relation to the front boundary need to take this into account and effectively treat the designation boundary as the front boundary as opposed to the current legal boundary. ...

It is understood from discussion with WKNZTA representatives that there are plans for safety improvements along this section of SH22. These will likely entail installation of a wire median barrier along the route coupled with opportunities to U turn at several points(as movements to some properties and side roads with access to SH22 will be restricted to left in and out). However the proposed treatment at Whangapouri Road is unknown. It is understood that the work has been delayed, partly as a result of the need to rescope it due some impending land use changes along the route (e.g. Drury Plan changes).

⁴⁴ WKNZTA traffic counts as measured just west of Oira Road

In response to concerns raised by submitters that the substation might have adverse effects on road safety as a result of increased traffic, construction traffic or outdoor lighting Mr Freke concludes:

- The amount of traffic associated with the operation of the substation is likely to be very low, being that associated with maintenance and repair and is unlikely to adversely affect road safety.
- There is a potential risk associated with construction traffic, which may include more heavy vehicles. Mr Freke recommends a condition requiring a Construction Traffic Management Plan (CTMP) to manage any potential risk, and notes that similar conditions are contained in other Counties Energy designations for substations.⁴⁵ A CTMP would assess the amount and timing of construction traffic and the route they take to and from the site. Without such a condition, traffic would be entitled to access the construction site, providing that they obey the rules of the road and obtain any approvals required for over dimension vehicles. Mr Freke noted that land transport rules require over-dimension vehicles to get a separate permit which is issued by Waka Kotahi.
- Mr Freke supports proposed Condition 16B requiring a 10m setback from the Whangapouri Road boundary as this could also address some of the safety issues raised around vehicles from SH22 entering the substation. He suggests Condition 16B is amended slightly to use the term “substation” rather than “building” to avoid potential issues with how the condition might be implemented.
- Chapter E24 of the AUP has provisions relating to lighting on private property. This includes a requirement that outdoor artificial lighting must not exceed threshold increment limits stated in Table E24.6.1.4. which applies to roads. If these are exceeded there is an assessment criterion around “the extent to which any artificial lighting will adversely affect traffic safety”. Potential adverse effects from outside lighting of the substation be addressed by the inclusion of a condition requiring compliance with that AUP standard and that any Outline Plan provide information demonstrating this.

Submitter 1 raised concerns about the potential adverse effects the proposed mitigation planting could have on road safety at the intersection and sought relief that the Indicative Landscape Plan be amended to address this. Their concerns are set out in more detail in section 4.2.2 and are not repeated here.

Mr Freke agrees that the proposed landscaping could affect future sightlines if the road widening designation is implemented and that part of the site becomes part of the road reserve.

⁴⁵ Designation 3010, Designation 3008

In the short-term Mr Freke considers the sightlines should be adequate if the front of the site within the road widening designation is maintained in grass. He also noted the presence of a stop sign which, if observed, should result in reasonable visibility to the east for vehicles waiting to turn.

Mr Freke states that while there may be benefits to vesting the corner of the site as a splay, as suggested by Submission 1, he does not consider that the effects from the proposed substation warrant this being imposed at this time. Instead Mr Freke considers that the inclusion of a new condition to limit planting or infrastructure within this area is a more appropriate option. Such conditions would lessen issues around that corner of the site being acquired in the future if required, as well as addressing potential sight line issues in the event that SH22 is widened.

Mr Freke also considers that a new condition is added to restrict any new vehicle access onto/from Karaka Road (SH22).

Mr Freke also recommends further amendments to Condition 3 to require the Outline Plan to show compliance with AUP standards for parking and loading design, circulation and vehicular access crossings based on the Waka Kotahi road widening designation boundary.

Mr Freke's recommendations to the proposed conditions (based on Working Draft Conditions (5 December) with reasons are set out in Attachment 2 and summarised below:

- Condition 3(d) – recommends further amendments noting parking minimums no longer apply but the loading and design related provisions are still applicable. The boundary is the one currently existing one and it is intended this would still apply in the event the designation is transferred to Auckland Transport at some point in time.
- Condition 3(f) – supports retention as it will confirm any need for additional consents based on increased discharges to the road
- Condition 3(g)(iv) – supports retention to address any potential safety issues from onsite lighting
- Condition 4 – supports retention but comments the requirement to consult with Waka Kotahi does not remove the need for a CTMP
- Recommends new Condition 14a to restrict planting or other objects exceeding 80cm in height from the southwestern corner of the site based on extent of existing road widening designation. Notes that 80cm height limit is based on the fact most driver's sightline is 1.1m metres above road level
- Condition 16B – supports retention, but recommends the word "building" is changed to "substation"
- Recommends new condition 24a to restrict any new vehicle access from Karaka Road (SH22)

- Recommends new condition 25a to require a CTMP as part of the Outline Plan to enable any safety issues associated with construction traffic to be addressed based the numbers, travel times, and routes taken to and from the site.

Overall Mr Freke concludes:

Whilst the above could potentially be left to be determined at outline plan of works, it is considered that providing them as conditions would provide more certainty as to what is required. This also recognises that, unless they are conditions, a requiring authority is not obliged to accept any recommendations on its outline plans of work. In addition none are considered such they would unduly affect the ability of Counties Power to establish and operate the planned substation. ...

In conclusion it is considered that, subject to appropriate conditions of designation being imposed to address potential transport effects, that there are no transport related reasons for recommending that the proposed substation NOR be declined.

Planning review:

I adopt the findings of Mr Freke with regards to potential traffic effects of the proposal and support his recommended changes to Conditions 4a, 16B, 24a and 24a with minor amendments to improve drafting and consistency with other conditions.

However as previously discussed I do not support the way Condition 3 is drafted, in particular requiring compliance with AUP standards by reference to the AUP standard number only. This is discussed in more detail at the end of this section.

Relevant to Mr Freke's recommendations above I recommend that reference to "conforming with the relevant standards in the AUP(OIP) and Auckland Design Manual" is deleted and replaced with several new conditions – Conditions 23A, 23B and 23C.

I note recommended Conditions 23A and 24A are just reinstating conditions Counties Energy previously deleted which refer to specific Auckland Transport standards. Recommended Condition 23B is a new condition based on the AUP Standard that requires vehicle crossings to be located at least 10 metres from an intersection, except I have based the 10 metres on Waka Kotahi designation boundary to future proof.

With regards to the impacts of potential light spill/glare on road users from exterior lighting of the substation, I consider proposed Condition 19, with minor amendments is sufficient to manage any potential adverse effects on the road. I recommend that Condition 19 is amended to make it clear that "adjacent properties" includes public roads. I note this minor amendment is consistent with other Counties Energy designations.⁴⁶ See Attachment 4 for my recommended conditions.

Silt and sedimentation

Requiring authority AEE

⁴⁶ AUP Designations 3006 and 3009

The AEE states:

Due to the size of the site and extent of the earthworks likely to be undertaken a specific silt and sediment plan (ESCP) will be required as a condition of the Outline Plan of Works. Due to the conceptual nature of design a specific ESCP will be developed during the future stages of the project.

When lodged, the NoR contained conditions to manage the effects of silt and sedimentation and the AEE relied on these to mitigate potential adverse effects caused by earthworks. As outlined in section 1.4 of this report Counties Energy proposed to delete many conditions before the NoR was notified. This included the conditions relating to erosion and sediment control.

However these conditions were retained in the Working Draft Conditions (5 December) and included:

- Proposed Condition 2 requires that any additional matters requiring regional consents or approvals must be obtained prior to works commencing.
- Proposed Conditions 26 to 33 are set out under the heading Erosion and Sediment Control Management Plan (ESCMP). These conditions describe the purpose of the ESCMP – to set out the methods and practises to minimise effects on the receiving environment of sediment generation and yield during the construction phase. The ESCMP is required to be prepared in accordance with council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region Guideline Document 2016/005 (GD05) and any subsequent updates. Specific conditions relate to avoiding effects on public areas (e.g. the road), clean-up, monitoring, hours earthworks can be undertaken etc. Condition 27 relates to bunding of the transformers and is a duplication of proposed Condition 22.

Planning review:

The AUP contains both regional and district plan provisions relating to earthworks. For infrastructure the earthworks/land disturbance provisions are contained in Chapters E11, E12 and E26. I note that only those land disturbance provisions that are regional provisions would apply to the proposal. These include standards to manage erosion and sediment where land disturbance will be over a certain threshold. Generally earthworks up to 10,000m² is a permitted activity for land that has a slope less than 10 degrees.⁴⁷ If the land has a slope equal to or greater than 10 degrees then up to 2,500m² is permitted.⁴⁸ Permitted standards apply for these activities.

⁴⁷ AUP E26.5.3. Table E26.5.3.2(A101) (for the Mixed Rural Zone)

⁴⁸ AUP E26.5.3. Table E26.5.3.2(A104) (for the Mixed Rural Zone)

Section 3 of the NoR Report estimates approximately 2000m³ over an area of approximately 5000m² will be required for the works – mostly to form a level platform. This means a regional consent might not be required because the land is relatively flat and the area of earthworks would be less than the 10,000m² rule threshold. However any works should still need to comply with the permitted standards. One of these standards requires the implementation of best practice erosion and sediment control measures.⁴⁹ This approach is consistent to that in Condition 26 although Condition 26 refers to the more up-to-date guideline GD05.

Overall I consider an Erosion and Sediment Control Management Plan should be required as part of the Outline Plan of Works. This will manage adverse effects on the environment and will demonstrate how the works will be compliant with any regional land disturbance provisions or identify if regional consent is required.

Therefore I consider that Condition 26 should be retained, with minor amendments to correct what appear to be drafting errors. I also consider that Conditions 28 to 33 should be retained as these generally support Condition 26. I note these conditions are the same as those for Counties Energy Designation 3009 Drury South Substation at 201 Quarry Road, Drury.

Should Counties Energy wish to delete these conditions I consider additional information should be provided by Counties Energy to support this, to better understand their reasons and the implications of removing them.

However I recommend that Condition 27 is deleted. This is a duplication of Condition 22 which I consider should be retained. The purpose of this condition is to manage the risk of oil spills from the transformers which I consider should be part of the management of hazardous substances rather than an effect of earthworks.

I also recommend changes to Condition 3 to set out clearly what management plans are required as part of the Outline Plan of Works.

See Attachment 4 for recommended amendments to these conditions.

Site suitability - geotechnical and contaminated land

Requiring authority AEE

Geotechnical (including stormwater)

The AEE assessment is contained in section 8 of the NoR. The requiring authority has provided a Geotechnical Investigation Report, prepared by Ergo Consulting Limited (Appendix E of the NoR Report).

With regards to the Geotechnical Investigation Report the AEE states:

⁴⁹ E26.5.5.2(4)

“... that included site-specific investigations; ground conditions; design considerations; foundation recommendations; site earthworks; pavement design; stormwater controls; future works; plan review and construction observations. That investigation did not raise any site limitations that would affect the suitability of the land for the proposed use.”

Section 3 of the NoR Report states:

“No proposed stormwater treatment is proposed for the sites. The stormwater will be ‘detained’ as part of the soakage systems and there is not expected to be any increased stormwater flows from the site. No stormwater treatment system is proposed for the driveways or carpark areas. The site will have very little traffic, with likely traffic count of 4 vehicles a week for the substation.”

The set of conditions lodged by Counties Energy contained proposed Condition 2 stating all other consents (e.g. regional consents) must be obtained before any works are started. Proposed Condition 20 required regular cleaning and maintenance of stormwater management devices/systems. Initially Counties Energy proposed to delete these conditions through their section 92 response, but they were retained in the Working Draft Conditions (5 December) version.

Contaminated land

The requiring authority has also provided a Detailed Site Investigation (DSI) prepared by Geosciences Limited, in accordance with the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulation 2011 (Appendix F of the NoR).

The AEE states:

“...The [DSI] investigation has indicated an area with high levels of arsenic, which are at levels that may be hazardous to human health...”

A site remediation plan, including additional testing, will be required due to the arsenic found on site. A resource consent for earthworks, under the National Environmental Standards (NES), will be required for the works prior to any soil disturbance. The relocation of the existing septic tank will require that the soil around the tank be tested and likely disposed of at managed landfill site.”

Condition 2 states:

“Any additional matters requiring regional consents or approvals (such as National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) must be obtained prior to works commencing.”

Specialist review

Before notification of the NoR Preetika Singh (Healthy Waters Specialist, Healthy Waters) reviewed the NoR and supporting technical Infrastructure Design Report on behalf of the council. Ms Singh did not identify any significant issues with the NoR but noted that Auckland Transport approval would be required to discharge onto the road.⁵⁰

In relation to discharge onto the road Mr Freke (Auckland Transport) suggested an amendment to proposed Condition 3 to require the Outline Plan to include the extent of any stormwater discharges to the road reserve. Counties Energy included this requirement with the Draft Working Conditions (5 December).

Mr Freke continues to support the retention of this requirement because it will confirm any need for additional consents based on increased discharges to the road.

The council's specialist Andrew Kalbarczyk (Senior Specialist – Contaminated Land, Contamination, Air & Noise) has reviewed the NoR and DSI Report and provided a response on 25 March 2022 which is included in Attachment 2 of this report.

In summary Mr Kalbarczyk concludes:

There appear to be no significant issues of concern with regards to contamination within the subject site, that would affect the designation in principle. However, the identified presence of a contamination hotspot within the site poses a risk to human health and the environment, and therefore a recommendation has been made that a further environmental assessment and remediation of the hotspot be undertaken at a later stage, prior to the lodgement of a resource consent application for the subdivision and land-disturbance works.

From the perspective of contamination and the associated potential effects on human health and the environment, I consider the NoR to be consistent with the purpose of the NES:CS, and relevant objectives and policies of the Contaminated Land Rules of the AUP(OP), Auckland Council Regional Policy Statement, and National Policy Statement for Freshwater Management.

...

Overall, from the perspective of the contamination status of the subject site and potential effects on human health and the environment, I recommend that the NoR be supported, subject to the following actions taken prior to the proposed subdivision and land-disturbance activity:

- Undertaking a further environmental assessment of the identified contamination hotspot to define the actual risks to human health and the environment, and adopt the relevant mitigation options
- Undertaking remediation or management of the identified contamination hotspot on site to mitigate the risks to human health and the environment

⁵⁰ A memo setting out Ms Singh's advice was not considered necessary for this report.

- Implementing adequate controls, management procedures, and mitigation measures during the land-disturbance activity on site, in order to protect human health and the environment
- Adopting the industry best practice to avoid, remedy, or mitigate any adverse effects on human health and the environment during the proposed land-disturbance activity.

Planning review:

I note that Chapter E8 Stormwater – discharge and diversion, contains regional plan provisions, and as such will apply to the designation.

I agree with Mr Freke’s recommendation that the Outline Plan should show the extent of any stormwater discharge onto the road for the reasons set out above. However I recommend that this sits within recommended Condition 3A rather than Condition 3. This is a consequence of wider changes I recommend to Condition 3 and is discussed in more detail at the end of this section.

I adopt the findings of Mr Kalbarczyk. However I note that subdivision of the site is not part of the NoR.

AUP Chapter E30 and the management of contaminated land is dealt with through a national environmental standard which has a clear consenting regime, I do not consider it is necessary to include any further conditions related to the management of the contaminated land on the subject site. However I support the retention of Condition 2 as this reflects the fact that such a consent will likely be needed.

I support the retention of proposed Conditions 2 and 20.

Flooding

Requiring authority AEE

Effects of flooding are addressed in section 8 of the AEE.

Planning review:

I agree with the assessment in the AEE.

Infrastructure (wastewater)

Requiring authority AEE

The requiring authorities Infrastructure Design Report (Appendix C of the NoR) identifies that the site is rural and is not connected to any reticulated water supply or wastewater systems. In summary it concludes:

- There is no public wastewater system on site and that onsite disposal systems will be adopted. The substation will have a single toilet. *“Due to the infrequent use and low flow a septic storage tank will be installed which will be emptied periodically. A septic system is not suitable as it is reliant on ongoing flows to keep it functional.”* The Biolytix wastewater system that currently serves the site will be relocated to what will become the residential site to serve the residential lot. This will include replicating the exiting discharge trench (approx. 100m long) within the residential lot.
- There is no public water supply available, and rainwater tanks will be adopted for the substation. These will be supplied from the roof of the switchroom and via a booster pump station. The residential lot will be serviced by an existing water bore.

The AEE states:

It is expected there will be sufficient space on both resulting sites to accommodate the respective wastewater systems where required.

Planning review:

The development and ongoing use of the residential lot is outside the scope of the designation.

The provisions of Chapter E5 On-site and small scale wastewater treatment and disposal are regional rules and therefore would apply to the designation. In my opinion the proposal is unlikely to generate any significant issues and these rules will sufficiently manage any potential adverse effects arising from wastewater from the substation.

Potential contamination from oil (hazardous substances)

Requiring authority AEE

The requiring authorities Infrastructure Design Report (Appendix C of the NoR) states:

The transformers on the site will each contain approximately 27,000-30,000 litres of oil. It is proposed to provide bunding around the transformers which will provide emergency containment of the volume of oil, plus either 10% extra oil and a contingency for rain or fire-fighting water. The rainwater from the transformer bunded area will be reticulated through a proprietary oil plate separator during normal operation.

The AEE states:

Due to there being oil contained within the transformers there is potential for oil spills or fires/explosions which can result in soil contamination and the adverse health and safety effects. In order to mitigate these potential effects, the following mitigation is proposed:

- *Oil will not be contained within the transformers when they are being installed;*
- *The area beneath the transformer will be bunded;*

- *The bunded area will contain an isolation valve so that should an oil spill occur from the transformer this will be contained;*
- *The transformers are protected from overloading and faults by protection equipment (i.e. circuit breakers) fitted with monitoring devices which will alert Counties Energy of the operating conditions that would lead to a fire or oil spill.*
- *The substation will be within a locked, fenced area and within a fully enclosed, and locked building; and*
- *The substation will be constructed and maintained based upon good industry practice.*

When lodged the NoR contained conditions to manage hazardous substances including the risk of potential oil spill from the transformers. As outlined in section 1.4 of this report Counties Energy initially proposed to delete many conditions before the NoR was notified, including these conditions. However these conditions were retained in the Working Draft Conditions (5 December) and included:

- Proposed Condition 26 requires a Hazardous Substances Environmental Management Plan (HSEMP) to be prepared outlining the methodologies and processes that will be used adopted to ensure that the risks of storing and using hazardous substances within the subject site will be appropriately managed.
- Proposed Condition 22 requires all transformers containing over 1000L of oil to be bunded with sufficient capacity.

Specialist review:

The council's specialist Bin Qiu (Senior Specialist, Contamination, Air & Noise) has reviewed the NoR and submissions received and provided a response on 10 March 2022 which is included in Attachment 2 of this report.

In relation to hazardous substances and oil from the transformers Mr Qiu concludes:

- Hazardous substances are controlled under other regulations e.g. Hazardous Substances and New Organism Act 1996 (HZNO Act) and Health and Safety at Work Act 2015 (HSW Act)
- The function of local authorities to control hazardous substances was removed from Sections 30 and 31 of the RMA in 2017 by Resource Legislation Amendments Act 2017 (RLA Act). The AUP has not yet been amended to reflect this so the AUP provisions under Chapter E31 still apply.
- Oil from the transformers may be hazardous to human health and the environment. While the NoR Report does not include technical details or the specific transformer oils that will be used, he notes the following about the proposal:

- *the transformers will be located within a bunded area which has capacity to contain the total volume of oil in the transformer plus an allowance for rainwater.*
- *The bunded area will contain an isolation valve so that should an oil spill occur from the transformer this will be contained;*
- *The bunded area is connected to an oil separator, so the leaked oil in the water can be removed before discharged into the environment.*
- *The transformers are protected from overloading and faults by protection equipment (i.e. circuit breakers) fitted with monitoring devices which will alert Counties Energy of the operating conditions that would lead to a fire or oil spill.*
- *Preparation and implementation of good maintenance practice and the Hazardous Substances Environmental Management Plan.*
- In relation to human health generally the risk to the public likely to be very low, and risk to workers at the substation will be controlled under the HSW Act and its relevant regulations and is beyond the scope of Chapter E31.
- In relation to the environment ecosystem, the “... *potential risk to the ecosystem may exist if the oil is leaked and discharged into the environment in a significant quantity for prolong period of time. This risk can be mitigated by the appropriately siting and installing of the transformers, good management of the hazardous substances, regularly maintaining of the site and its discharge systems.*”
- Supports the retention of Conditions 21, 22 and 27 as these would mitigate to an acceptable level the potential environmental risk from the transformer oils .

Planning review:

I adopt the findings of Mr Qiu in relation to the potential adverse effects from the transformer oils and the appropriate measures to mitigate these effects to an adequate level.

I note AUP Chapter E31 contains district plan provisions so would not apply to the designation.

In relation to the RLA Act amendments the Quality Planning website states:

While councils do retain a broad power under the RMA to manage hazardous substances through their plans and policy statements to achieve the purpose of the RMA and to carry out the function of integrated management of natural and physical resources in their region/district, this should only be exercised where the potential environmental effects are not adequately addressed by other legislation.⁵¹

As Mr Qiu has identified the AUP has not been amended yet to reflect the legislative changes, therefore a robust analysis has not been undertaken to determine if potential environmental effects are adequately managed by the HSNO and HSW Acts.

In addition to this I consider the information provided by Counties Energy is insufficient to determine if the requirements of the HZNO Act or HWS Act will appropriately manage the potential risks to the environment from the transformer oils should there be a spill. Therefore I consider Conditions 21 and 22 should be retained unless Counties Energy provides further information that is sufficient to demonstrate how potential adverse effects to the environment will be managed through the HSNO and HSW Acts, including the measures that will provide mitigation. Furthermore the AEE specifically relies on Conditions 21 and 22 for mitigation. I note that these conditions, while not exactly the same, are consistent with other Counties Energy Designations 3009 and 3010.

Therefore, I recommend the retention of Condition 21 requiring a Hazardous Substances Environmental Management Plan and Condition 22 requiring bunding on the transformers. However, I do recommend the deletion of Condition 27 as this is a duplication of Condition 22.

Additional adverse effects

Health and safety - radiation

Requiring authority AEE

The AEE does not contain an assessment of effects related to the risks of radiation. However sections 9 and 10 of the NoR Report address the matter of electric and magnetic fields (EMF) or radio frequencies. The NoR Report states:

While the substation will not be used or owned by Transpower, Policy 9 of the NPS [National Policy Statement on Electricity Transmission] provides relevant guidance on the consideration of electric and magnetic fields, which states:

Provisions dealing with electric and magnetic fields associated with the electricity transmission network must be based on the International Commission on Non-ionising Radiation Protection Guidelines [ICNIRP] for limiting exposure to time varying electric magnetic fields (up to 300 GHz) (Health Physics, 1998, 74(4): 494-522) and recommendations from the World Health Organisation monograph Environment Health Criteria (No

⁵¹ <https://www.qualityplanning.org.nz/node/1150> accessed 25 March 2022

238, June 2007) or revisions thereof and any applicable New Zealand standards or national environmental standards.

This policy signals that human exposure to electric and magnetic fields should be addressed and that the ICNIRP guidelines are the appropriate standard for addressing this matter.

The NoR also states that various adverse effects of the proposal, including radio frequency, will be mitigated through conditions to be imposed on the designation.

The proposed conditions lodged with the NoR contain two relevant conditions – Conditions 17 and 18. Counties Energy did not propose to delete either of these conditions through their section 92 response but did propose minor amendments to Condition 18. They also proposed amendments to Condition 3 to require the Outline Plan of Works to show compliance with AUP Rule E26.2.5.2(6) relating to EMFs.

The Working Draft Conditions (5 December) contains the following proposed conditions:

Outline Plan(s)

Condition 3: *Prior to commencement of construction, the requiring authority must submit an Outline Plan to the territorial authority in accordance with section 176A of the RMA to allow the territorial authority to request changes before construction commences. The Outline Plan will include:*

...

- g. *Any other matters to avoid, remedy, or mitigate any adverse effects on the environment including compliance with the following Rules of the Auckland Unitary Plan:*
 - i. *Rule E26.2.5.2(6) – Electricity transmission and distribution (Electric and magnetic fields).*
 - ii. *Rule E26.2.5.2(7) – Radio Frequency Fields (RF fields).*

...

Electric Magnetic Fields (EMF)

Condition 17: *The operation of the substation shall at all times comply with the International Commission on Non-ionising Radiation Protection Guidelines (ICNIRP) for limiting exposure to time varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 2010, 99(6); 818-836) and recommendations from the World Health Organisation monograph Environmental Health Criteria (No 238, June 2007).*

Electrical Interference

Condition 18: ~~*The Requiring Authority must make*~~ *Every reasonable effort must be made* ~~*to ensure that the substation is operated, managed*~~ *and or*

controlled so that there is no electrical interference with television or radio reception at any adjacent property including complying with the requirements of the Radio Communications Regulations 2001, the Ministry of Economic Development's Radio Spectrum Management "Compliance Guide" (November 2004), NZ Standard for Radiofrequency Fields Part 1 (1999) and relevant Gazetted Notices.

Specialist review

The council's specialist Bin Qiu (Senior Specialist, Contamination, Air & Noise) has reviewed the NoR and submissions received and provided a response on 10 March 2022 which is included in Attachment 2 of this report.

In summary Mr Qiu concludes:

Powerlines and associated equipment have the potential to produce electric magnetic fields (EMFs). As the frequency of the electricity current is transmitted in 50 Hz, the EMF may be called extra low frequency EMF (ELF EMF).

New Zealand does not produce its own EMF exposure guidelines and the Ministry of Health (MoH) recommends the use of guidelines published by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), which is adopted in Chapter E26 Infrastructure of the AUP. The MoH information pack has listed example EMF levels from various sources, including the emissions related to the high voltage lines (220kV and 400 kV) and substations.

Under the AUP activities such as distribution substations⁵² and overhead electricity lines (up to and including 110kV)⁵³ are permitted activities in rural zones provided they meet specific standards including E26.2.5(6) Electricity transmission and distribution (Electric and magnetic fields) which specifies:⁵⁴

"network utilities that emit electric and magnetic field emissions must comply with the International Commission on Non-ionising Radiation Protection Guidelines for limiting exposure to time varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 2010, 99(6); 818- 836) and recommendations from the World Health Organisation Monograph Environmental Health Criteria (No 238, June 2007)."

⁵² AUP E26.2.3. Activity table, Table E26.2.3.1 (A17)

⁵³ AUP E26.2.3. Activity table, Table E26.2.3.1 (A24)

⁵⁴ I note this standard is E26.2.5(1) Activities within roads and unformed roads in Table E26.2.3.1 Activity table (6) and E26.2.5(2) Activities within zones in Table E26.2.3.1 Activity table (6)

Mr Qiu notes that the requiring authority has not provided any technical information about the electric magnetic fields (EMFs) emission from the proposed substation; however they have offered a condition requiring compliance with international guidelines. This is consistent with AUP standard E26.2.5(2)(6).

Two submissions have been received and both raise the issue of potential risk of radiation from the substation.

Mr Qiu states as the submitters and general public are located away from the substation, the potential EMF exposure levels are likely to be below the example levels listed in the booklet and therefore will be well below the guideline's exposure limits for general public.

Mr Qiu supports the retention of Condition 17, with amendments, concluding:

... the proposed condition 17 Electric Magnetic Fields (EMF) in the designation is considered appropriate. But a monitoring component should be included in this condition so to ensure the substation EMF is compliant when is in operation at the closest neighbours and general public.

Mr Qiu also notes that the AUP Rule (E26.2.5.2(7) – Radio Frequency Fields (RF fields) is not applicable in this application as it refers to radio frequency fields emitted from mainly telecommunication facility with frequencies ranged from 3 kHz to 300 GHz, well above the 50 Hz of electricity frequency.

Planning review:

I adopt the findings of Mr Qiu in relation to EMFs Mr Qiu has recommended that Condition 17 be amended to include a requirement for monitoring to demonstrate the substation is compliant with Condition 17.

Condition 17 is the same as standard E26.2.5(2)(6) in the AUP. In the AUP any infringement of this standard is a non-complying activity.⁵⁵ In my opinion this shows the importance of compliance with the ICNIRP and World Health Organisation criteria contained in the standard and Condition 17.

Given these requirements and the submitters concerns, I consider it appropriate that Counties Energy are required to demonstrate the substation is compliant with these conditions once the substation is operational.

I recommend the following additional condition:

⁵⁵ AUP E26.2.3 Activity table, Table E26.2.3.1 (A65)

17A Within 6 months of the substation commencing operation the Requiring Authority must engage an electrical engineer to confirm compliance with the ICNIRP guidelines as evidenced by actual measurement of electric and magnetic fields at relevant locations. The engineer's report must be submitted to council's manager compliance and monitoring. In the event of any non-compliance, the report shall demonstrate how compliance will be achieved and the timeframes for completion.

The wording of this recommended condition is based on that in Counties Energy Designation 3009 Drury South Substation at Quarry Road.

The council had previously suggested that Counties Energy consider adding such a condition, but this suggestion was not included in the Working Draft Conditions (5 December).

Overall I consider the proposed Conditions 17 and 17A, will be sufficient to ensure any potential adverse effects on adjacent properties or those in close proximity to the subject site from electromagnetic fields will be avoided, remedied or mitigated.

With regards to Mr Qiu's comments about the applicability of the AUP Rule E26.2.5.2(7) – Radio Frequency Fields (RF fields), this relates to proposed Condition 3(g)(ii) that Counties Energy added to the Working Draft Conditions (5 December).

E26.2.5.2(7) Radio Frequency Fields (RF fields):

(a) network utilities should not result in radio-frequency fields produced by the network utility exceeding the maximum exposure level of the general public in the New Zealand Standard for Radiofrequency Fields Part 1: Maximum Exposure Levels 3 kHz to 300GHz (NZS 2772.1: 1999) measured at all places reasonably accessible to the general public.

Non-compliance of this standard is a non-complying activity in the AUP.⁵⁶

~~The Requiring Authority must make e~~Every reasonable effort ~~must be made~~ to ensure that the substation is operated, managed ~~and or~~ controlled so that there is no electrical interference with television or radio reception at any adjacent property including complying with the requirements of the Radio Communications Regulations 2001, the Ministry of Economic Development's Radio Spectrum Management "Compliance Guide" (November 2004), NZ Standard for Radiofrequency Fields Part 1 (1999) and relevant Gazetted Notices.

I note that the NoR Report states:

*The potential adverse effects of the activities that would occur at the Site under the proposed designation, are proposed to be mitigated through conditions to be imposed on the designation, which include... compliance with hazardous substances, **radio frequency** and....[emphasis added]*

⁵⁶ AUP E26.2.3 Activity table, Table E26.2.3.1 (A66)

No other information is provided by Counties Energy on the matter. With the information available I am unable to determine if a condition is required to manage adverse effects of radio-frequency fields. Counties Energy may be able to provide more information about whether radio-frequency fields are emitted during the operation of the substation. If the substation is likely to emit radio-frequency fields at a level that would ordinarily need managing by AUP E26.2.5.2(7) then I consider it is appropriate to include a condition, for reasons similar to those set out above in the relation to EMFs. However if such a condition is required then I consider it should be added as a standalone condition rather than just as a reference to an AUP rule as currently set out in Proposed Condition 3(g)(ii). Refer to my discussion about proposed Condition 3 at the end of this section.

Mr Qiu has confirmed he supports my recommended changes to Condition 3 and new Condition 17A.

Effects on archaeology, heritage and Mana Whenua values

Sections 9, 10, 11 and 12 of the NoR Report discuss Mana Whenua values and engagement with Mana Whenua. Appendix D of the NoR Report contains the requiring authorities LVIA Report and Appendix I contains the cultural impact assessment provided by Ngāti Tamaoho.

The NoR Report states that there are no “...*identified natural heritage, Mana Whenua, natural resources, historic heritage or special character areas identified on the site in the AUP (OP).*”

The LVIA Report states:

While there are no recorded sites of heritage significance within the vicinity of the subject site, the area holds significant value to Ngāti Tamaoho Iwi, who have prepared a Cultural Impact Assessment in response to the designation.

...

They have considered the cultural and biophysical heritage values of the site. Mitigation measures including native plant species have been chosen in consideration of cultural heritage values and recommendations identified by Ngati Tamaoho.

The cultural impact assessment provided by Ngāti Tamaoho Trust states:

The cultural landscape as it stands will be minimally impacted as this proposed project and their associated amenities and maintenance facility for the proposed substation are built. But we cannot account for what's beneath the ground this is where our insistence on monitoring sits. If we minimise discharge impact on the waterways and upper catchment area of Drury daylight and fence. It will have less impact on the Karaka - Paerata to the lower catchment of Drury. We are not opposed to this project and look to have an ongoing relationship with Counties Power into the future.

The cultural impact assessment from Ngāti Tamaoho Trust also provides the following recommendations:

- *ongoing meaningful engagement and the availability to be able to add an addendum to this CIA if any issues with concept design or agreed outcomes are not met.*
- *the clothing of papatuanuku in a native palette, the banks of the waterways daylighted are important for water quality and sustain the flora and fauna in the waterways.*
- *any proposed new wetlands as treatment devices, to have forbays for maintenance, a small portion be apportioned off for treatment if it is consented as per say.*
- *treatment train approach to all discharge and runoff as stated in our CIA.*
- *habitat retention and improvement of the Whangapouri stream corridor preferred remediation area.*
- *Cultural Induction and Cultural Monitoring when pre-earthworks meetings happens and first scrape back of the land including implementation of silt fences.*
- *Weed and Pest management Strategy.*
- *Avoidance and restoration of all wetlands where possible.*
- *Fish Management Plan if applicable.*
- *Discovery Protocols to be adhered as there are portions of this development that haven't been developed before, the project is on top of a hill 360 degrees views, along a ridgeline sitting higher into the interior looking down to the Manukanuka o Hoturoa. It is surrounded by tributaries and main awa of the area.*
- *Cultural Input into Design form.*
- *Higher standard then the minimum requirements advocated by the council.*

Proposed Conditions 5 and 6 require further consultation with Ngāti Tamaoho:

5. Counties Energy shall consult with Ngati Tamaoho during the detailed design and subsequent construction processes prior to undertaking any work pursuant to this designation to ensure that the proposed design addresses their suggestions about switch room colour and finish.

6. The outcome of such consultation shall be provided to the Council as part of any Outline Plan of Works required by section 176A of the Resource Management Act 1991.

Proposed Condition 13 requires accidental discovery protocols to be followed during the construction of the substation:

13. If any archaeological sites, urupa, traditional sites, taonga (significant artefacts), or koiwi (human remains) are exposed during site works, then the following procedures shall apply:

- a. Works in the immediate vicinity of the site that has been exposed shall cease;*

b. The site supervisor shall immediately secure the area in a way that ensures that any remains or artefacts are untouched;

c. The site supervisor shall notify representatives of relevant tangata whenua, the Heritage New Zealand Pouhere Taonga, the Auckland Council and, in the case of human remains, the New Zealand Police; and

d. The notification in (c) above shall allow such persons being given a reasonable time to record and recover archaeological features discovered before work may recommence on the exposed site.

e. Works shall not commence in the immediate vicinity of the archaeological site until any approval required from the Heritage New Zealand Pouhere Taonga is obtained.

The NoR Report states:

The site is subject to a Ngāti Tamaoho Statutory Acknowledgement Area and is an area of interest for Te Ahiwaru Waiohua, Ngāti Tamaoho, Ngāi Tai ki Tāmaki, Te Ahiwaru Waiohua, Ngāti Te Ata Waiohua, Ngāti Maru Waikato-Tainui. We have contacted all the groups on the Council's list to ascertain interest in this site.

The NoR Report also states that Te Ahiwaru Waiohua confirmed "... their support for Counties Energy's continued engagement with Ngaati Tamaoho directly along with any recommendations their Whanaunga deem necessary." The NoR Report states that no other responses were received from iwi.

Planning review:

I agree with the NoR Report that the subject site is not subject to any overlays in the AUP that relate to natural heritage, historic heritage or Mana Whenua values. I have also checked the council's Cultural Heritage Inventory (CHI) and there are no features identified on the subject site or in the near vicinity.

I rely on the expertise, cultural knowledge and right of Ngāti Tamaoho to identify their cultural values, and adverse effects on these and appropriate mitigation measures.

Ngāti Tamaoho did not submit on the NoR and no other submissions were received that raised concerns related to archaeology, heritage and Mana Whenua values.

I support the intent of proposed Conditions 5 and 13 to manage potential adverse effects on archaeology, heritage and Mana Whenua values. I also support proposed Condition 6 with minor amendments. These minor amendments are a consequence of changes to Conditions 3 and 3A I recommend which are discussed at the end of this section.

In the event that any archaeological sites, urupā, traditional sites, taonga or kōiwi are exposed during sites works the accidental discovery protocol required by proposed Condition 13 ensure Heritage New Zealand Pouhere Taonga, Ngāti Tamaoho and other relevant tangata whenua are notified and involved in the process. While

proposed Condition 13 differs from that contained in Chapters 11 and 12 of the AUP⁵⁷, the intent of the condition is similar.

Proposed Condition 5 also ensures that Ngāti Tamaoho is consulted in relation to the switchroom colour and finish during the detailed design and subsequent construction processes. The outcome of this consultation is required to be included with the Outline Plan (proposed Condition 6, or Condition 3A(c) as I have recommended).

While Ngāti Tamaoho did not submit on the NoR, I note there are a number of other recommendations they made in their cultural impact assessment that are not as clearly reflected in the conditions proposed by Counties Energy. Counties Energy may wish to comment on how they intend to address the other recommendations from Ngāti Tamaoho.

Effects of construction - general

The effects of construction traffic and construction noise are addressed above. More general effects of construction are discussed below.

Requiring authority AEE

In considering the effects of construction traffic the AEE (section 8 of the NoR Report) states:

The construction works would be carried out during normal construction hours (lower noise limits apply outside the hours of 7.30am to 6.00pm). Further information on construction hours will be provided as part of Outline Plan of works approval process and a specific condition limiting construction hours is proposed.

Proposed Condition 7 requires a Construction Environmental Management Plan (CEMP), and proposed Condition 8 sets out what the CEMP must contain in order to avoid remedy or mitigate adverse effects associated with construction of the project.

As previously mentioned, Counties Energy proposed to delete various conditions including these two conditions. However these conditions were retained in the Working Draft Conditions (5 December).

Planning review:

I address the specific effects of construction traffic and noise in the topics above.

I support the retention of proposed Condition 8 (with a minor amendment) which sets out what the CEMP must include. I consider the CEMP is important to demonstrate the methods and procedures that will be used to avoid, remedy or mitigate adverse effects on the environment, the surrounding area and in particular the neighbouring properties. It is also required to show linkages to the other management plans which address the management of adverse effects during construction e.g. the CTMP and CNVMP required by recommended Conditions 8A and 9A.

⁵⁷ AUP E11.6.1. Accidental discovery rule and E12.6.1. Accidental discovery rule

Should Counties Energy wish to delete proposed Condition 8 then I consider additional information should be provided by Counties Energy to support this to better understand their reasons and the implications of removing them.

However I recommended that proposed Condition 7 be deleted and that the need for the Outline Plan to include a CEMP be moved to new Condition 3A. See the end of this section for further discussion about Conditions 3 and 3A.

Drafting of proposed Condition 3 and consequential amendments

As mentioned previously I do not support Counties Energy's approach to proposed Condition 3 (what must be included in an Outline Plan), including the approach of referring to specific AUP provisions that the proposal must comply with. While I recognise the intent from Counties Energy to show and ensure that the proposal would be consistent with specific AUP standards I consider it is more appropriate that the content of the relevant AUP standards is included as specific conditions within the designation. This will in my opinion improve the clarity of the effects and how these need to be managed by the designation which will then help with the preparation and assessment of the Outline Plan. It will also prevent potential issues should the AUP standards change in the future.

Similarly I consider other non-AUP guidelines or standards should be referenced in full rather than more generally in the conditions. Consequentially I have recommended reinserting conditions that referred to specific parts of Auckland Transport's Code of Practice. This is discussed in more detail under traffic/vehicle effects above.

Therefore I recommend that proposed Condition 3 be "stripped back" to be consistent with the requirements of section 176A of the RMA.

I then recommend a new condition, Condition 3A, which sets out other matters that must be included in the Outline Plan, including all the management plans that are required. I support the use of management plans, many of which were initially proposed by Counties Energy. I have discussed why I consider the use of each of the management plans to be appropriate under the relevant topic above. Overall I consider management plans are an appropriate method to use to mitigate adverse effects, especially during the construction stage of the project.

I note the approach I have taken to Conditions 3 and 3A is generally consistent with that in Counties Energy designation 3009 Drury South Substation.

My recommended Condition 3 and Condition 3A are shown below with marked-up amendments and in Attachment 4.

Outline Plan(s)

3. Prior to commencement of construction, the requiring authority must submit an Outline Plan to the territorial authority in accordance with section 176A of the RMA to allow the territorial authority to request changes before construction commences. The Outline Plan will include:

- h. The height, shape, and bulk of the public work, project, or work; and*

- i. *The location on the site of the public work, project, or work; and*
- j. *The likely finished contour of the site; and*
- k. *The vehicular access crossings, circulation, and the provision for parking conforming with the relevant Auckland Transport standards and guidelines, based on a boundary defined by the Waka Kotahi NZTA designation boundary; and*
- l. *A detailed Landscape Plan generally in accordance with the landscape concept plan set out in the LVIA prepared by Align Ltd prepared by a suitably qualified person the landscaping proposed; and*
- ~~m. *The extent of any stormwater discharges to the road reserve; and*~~
- ~~n. *f. Any other matters to avoid, remedy, or mitigate any adverse effects on the environment, including compliance with the following Rules of the Auckland Unitary Plan;*~~
 - ~~iii. *Rule E26.2.5.2(6) — Electricity transmission and distribution (Electric and magnetic fields).*~~
 - ~~iv. *Rule E26.2.5.2(7) — Radio Frequency Fields (RF fields).*~~
 - ~~v. *Rule E26.2.5.3(2) — Noise from substations.*~~
 - ~~vi. *Rule E24.6.1 — General standards for Lighting.*~~

3A. In addition to the matters set out in Condition 3 the Outline Plan must:

- a) include the extent of any stormwater discharges to the road reserve
- b) demonstrate how the proposal will be compliant with the conditions
- c) include the outcome of the consultation required by Conditions 5 and 6A
- d) include a detailed landscape plan as detailed in Condition 14A
- e) include the following management plans:
 - (i) Construction Environmental Management Plan as detailed in Conditions 7 and 8
 - (ii) Construction Noise and Vibration Management Plan as detailed in condition 9A
 - (iii) Construction Traffic Management Plan as detailed in condition 8A
 - (iv) Erosion and Sediment Control Management Plan as detailed in conditions 26 to 33
 - (v) Environmental Management Plan for Hazardous Substances as detailed in condition 21.

In addition to the recommended changes above, I also recommend further minor amendments to other conditions to correct what appear to be potential errors or to ensure consistent use of punctuation. I do not consider these amendments to change

the substance of the conditions. These include but are not limited to referring to “Waka Kotahi NZ Transport Agency” in full, adding semi colons at the end of clauses and adding a macron to “Ngāti Tamaoho” and other Māori words where appropriate.⁵⁸ See Attachment 4 for a ‘marked-up’ version of all recommended amendments to the conditions.

4.3.6 Effects conclusion

I consider that subject to the further amendments to the conditions recommended above and included in Attachment 4, and the Indicative Landscape Plan in the LVIA Report being revised as recommended by Stephen Brown in section 4.3.5, the effects of the project will be avoided, remedied or mitigated.

4.4 National policy statements (NPS)

Section 171(1)(a)(ii) requires the council to, subject to Part 2, consider the effects on the environment of allowing the notice of requirement, having particular regard to any relevant provisions of a national policy statement.

4.4.1 New Zealand Coastal Policy Statement (NZCPS)

The NZCPS contains objectives and policies relating to the coastal environment.

The NoR Report states that the NZCPS is not applicable to the proposal. I agree with this statement based on Policy 1 of the NZCPS which identifies the extent and characteristics of the coastal environment.

4.4.2 Hauraki Gulf Marine Park Act 2000 (HGMPA)

This HGMPA is also a NPS (refer section 9 of the HGMPA). Geographically it applies to the Hauraki Gulf, its islands and catchments. Catchment is defined to mean *any area of land where the surface water drains into the Hauraki Gulf*.

This Act is not applicable to this proposal.

4.4.3 National Policy Statement on Electricity Transmission 2008 (NPSET)

The NPSET provides a high-level framework that gives guidance across New Zealand for the management and future planning of the national grid.

The “national grid” is defined in the NPSET as meaning “...the assets used or owned by Transpower NZ Limited.”

⁵⁸ Use of macron on specific Māori words checked on <https://maoridictionary.co.nz/>

The NoR Report discusses the NPSET in section 9, and notes, while it doesn't apply to the NoR (because the substation will not be owned by Transpower) the NPS "... signals that human exposure to electric and magnetic fields should be addressed and that the ICNIRP guidelines are the appropriate standard for addressing this matter."

Electric and magnetic fields are discussed further in sections 4.2.2 and 4.3.5 of this report.

4.4.4 National Policy Statement for Freshwater Management 2020

Not applicable to this proposal.

4.4.5 National policy statement for renewable electricity generation 2011

Not applicable to this proposal.

4.4.6 National policy statement on urban development 2020

This NPS applies to the provision of well-functioning urban environments, planning decisions which improve housing affordability, and removal of overly restrictive barriers to development to allow growth 'up' and 'out' in locations that have good access to existing services, public transport networks and infrastructure.

The NoR Report does not address this NPS.

This NPS is not directly applicable to the proposed substation. However, the proposed substation will contribute toward ensuring that there is adequate infrastructure to support anticipated growth within other areas of Counties Energy's electricity network, including Drury and Pukekohe.

4.5 National environmental standards

4.5.1 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES:CS)

The NES (soil) provides a nationally consistent set of planning controls and soil contaminant values to ensure that land affected by contaminants in soil is appropriately identified and assessed before it is developed and, if necessary, the land is remediated, or the contaminants contained to make the land safe for human use.

A Detailed Site Investigation (Contaminated Land) was undertaken for the project and included within Appendix F of the NoR.⁵⁹ Andrew Kalbarczyk has reviewed this report for council and provided advice on it. This is discussed in more detail in section 4.3.5 above.

⁵⁹ Detailed Site Investigation prepared by Geosciences Limited, 3 August 2021

The conclusions are that resource consents will likely be required under the NES:CS and the AUP provisions of Chapter E30 Contaminated land⁶⁰ due to elevated concentration levels of selected metals on part of the site. These levels exceed either the relevant Soil Contaminant Standard for protection of human health, set out in the NES:CS (arsenic), or naturally occurring background levels (chromium, copper, lead). The Detailed Site Investigation provided by Counties Energy outlines recommendations including that a remediation action plan be developed.

4.5.2 National Environmental Standards for Electricity Transmission Activities (NES ETA)

The NES ETA helps councils implement the NPSET policies relating to the transmission network. The NES ETA are regulations which set out specific detailed requirements for work on existing electricity transmission lines.

The NES ETA only applies to existing high voltage electricity transmission lines, it does not apply to the construction of new transmission lines or to substations. It also does not apply to electricity distribution lines – these are the lines carrying electricity from regional substations to electricity users.

4.6 Regional Policy Statement (Chapter B of the AUP) (RPS)

The RPS sets the strategic direction for managing the use and development of natural and physical resources throughout Auckland.

Attachment 5 contains the relevant objectives and policies in full.

The following RPS provisions are addressed in section 9 (paragraphs 9.7 - 9.39) of the NoR:

- B3.2 Infrastructure
- B2.2 Urban growth and form
- B9.2 Rural activities
- B9.4 Rural subdivision.

The LVIA Report also addresses the provisions in B9.2 in sections 3.1 and 6.2.e of the (Appendix D of the NoR).

Generally I agree with the assessment in the NoR Report, although I make the following observations.

⁶⁰ Chapter E30 contains regional rules, therefore the designation will be subject to these rules

In several instances⁶¹ the NoR Report has stated that the substation will be “enclosed” and designed in such a way that it will be in keeping with the existing and anticipated surrounding rural character. I note that the substation proposed is not an enclosed substation because only the switchroom will be within a building. All other equipment such as the transformers, gantries and bus works will be open air, which means the proposal meets the AUP definition of an “unenclosed substation”.⁶² Although Chapter J does not apply to designations, I consider it provides guidance about the type of substations and subsequent effects the AUP provides for.

At paragraph 9.19 in relation to B3.2.1 Objective (8), the NoR Report states:

As noted above the substation is to be situated within a Rural Zone and will be generally compatible with the surrounding land uses of the area. Mitigation is proposed through extensive landscaping on all boundaries of the designation. Furthermore, the LVIA concludes that the effects are low.

Adverse effects are discussed in sections 4.2.2 and 4.3.5 of this report. In summary, Stephen Brown, council’s expert landscape architect does not agree with the LVIA Report (Appendix D of the NoR Report) that all effects on landscape and visual amenity are **low**. I rely on the advice of Stephen Brown on this matter.

The NoR Report also does not consider B3.2.2 Policy (8) which seeks *to avoid, remedy or mitigate the adverse effects from the construction, operation, maintenance or repair of infrastructure.*

I consider this policy is relevant to the proposal and should be considered. In particular the proposal is likely to generate adverse effects related to construction and operational noise and construction traffic without appropriate conditions. These are discussed in sections 4.2.2 and 4.3.5 above.

The NoR Report also does not consider the RPS provisions in B9.3 Land with high productive potential. Although it does discuss this in the context of B9.2 Rural activities and the Rural zone provisions in Chapter D19. I agree with the NoR Report conclusions in relation to prime soil and the productive potential of land that does not contain elite or prime soils and consider those conclusions are also relevant to B9.3.1 Objectives (2) and (3).

In addition to the RPS chapters identified in the NoR Report, other RPS chapters considered relevant to the NoR are: -

Chapter B6 Mana Whenua:

⁶¹ E.g. paragraphs 9.14, 9.22

⁶² AUP Chapter J: *Unenclosed substations: A substation incorporating an uncovered equipment yard or other elements not fully enclosed within a roofed building or structure.*

Objective B6.3.1(1) seeks that Mana Whenua values, mātauranga and tikanga are properly reflected and accorded sufficient weight in resource management decision-making.

The applicant has stated they sought comment from all relevant Mana Whenua groups and received input from Ngāti Tamaoho. This is discussed in sections 10 and 12 of the NoR Report and Appendix I of the notified documents. In summary, Ngāti Tamaoho do not oppose the project and wish to be engaged further with Counties Energy on the project. Ngāti Tamaoho provided a cultural impact assessment which includes recommendations. This is included in Appendix I of the NoR. This is discussed in more detail in section 4.3.5 of this report.

The NoR Report also states that Te Ahiwaru Waiohau confirmed “... *their support for Counties Energy’s continued engagement with Ngaati Tamaoho directly along with any recommendations their Whanaunga deem necessary.*”

Therefore, I consider the proposal sufficiently aligns with Chapter B6.

Chapter B7 Natural resources

Chapters B7.3 and B7.4 relate to the maintenance and enhancement of freshwater systems, and seeks to avoid, remedy or mitigate adverse effects of point and non-point discharges on freshwater (B7.4.1(4)). I consider the following objectives and policies are relevant to the proposal.

- B7.3.1 Objective (3)
- B7.3.2 Policy (1)(c)
- B7.4.1 Objective (4)
- B7.4.2 Policies (8) and (9).

Auckland Council’s GEOMAPS show that there are no streams on the site and the NoR Report states that only a small overland flow path that applies to the north-western part of the site. According to the NoR Report and Infrastructure Design Report the overland flow path will not be affected by the proposed substation works and any effect from the installation of the driveway along the northern boundary “...will have no negative effects on the downstream receiving environment”.

The NoR Report states, as a rural site there is no public wastewater system so onsite disposal systems will be installed if necessary.

The NoR Report states:

No proposed stormwater treatment is proposed for the sites. The stormwater will be ‘detained’ as part of the soakage systems and there is not expected to be any increased stormwater flows from the site. No stormwater treatment system is proposed for the driveways or carpark areas. The site will have very little traffic, with likely traffic count of 4 vehicles a week for the substation.

The stormwater discharge rules in the AUP are regional rules and would apply to the proposal.

The requiring authority's Geotechnical Report concludes that "...given the relatively impermeable soil profile and the minimal development surface area relative to the site area, we consider that the development is unlikely to have any significant increase in surface runoff."

The AEE states that the oil in the transformers does pose a risk of soil contamination and adverse health and safety risks if it is spilt or there is a fire/explosion. However it states that these risks will be managed through mitigation measures e.g. Condition that area beneath transformers to be bunded.

Overall I consider the proposal consistent with the provisions in Chapter B7 provided adequate management and mitigation measures are in place.

Chapter B10 Environmental Risk

There is direction in the RPS to not increase risk to people, property, infrastructure and the environment from natural hazards, hazardous substances and contaminated land through Chapter B10.

B10.2 Natural Hazards and climate change

The NoR Report and Infrastructure Design Report (appendix C of the NoR Report) state that the site meets their primary land use requirement for a substation – it is a large flat area free of flood risks with proximity to road corridors. The council's GEOMAPS show that the site is not subject or prone to flooding with only a small area of the site containing an overland flow path.

I consider Policy B10.2(12) is relevant to this proposal.

B10.3 Land – hazardous substances

The RLA Act removed the explicit function of regional and territorial authorities under sections 30 and 31 to control the adverse effects of the storage, use, disposal and transportation of hazardous substances. See sections 4.3.5 and 4.8 for further discussion of this.

The AUP has not yet been revised to reflect this change in legislation. Therefore I consider that the following objective and policies are still relevant to this proposal.

- Objective B10.3(1)
- Policies B10.3.2(1), (2) and (3).

As indicated at the discussion above about the RPS provisions in Chapter B7 above the NoR Report states that the oil in the transformers does pose a risk of soil contamination and adverse health and safety risks if it is spilt or there is a fire/explosion. However it states that these risks will be managed through mitigation measures

The Working Draft Conditions (5 December 2021) contain conditions to manage and mitigate the risk of hazardous substations e.g. requirement to bund under the transformers and include a hazardous substances management plan as part of the outline plan of works.

The council's expert Mr Qiu has reviewed the proposal and proposed conditions for council. See section 4.3.5 of this report for further discussion of hazardous substances.

B10.4 Land – contaminated land

The RPS directs that contaminated land must be appropriately managed or remediated if it is to be developed. I consider that the following objective and policies are relevant to this proposal.

- Objective B10.4.1(1)
- Policies B10.4.2(1) and (3).

The NoR Report and DSI Report (Appendix F of the NoR Report) identify there is contaminated land on the site that would require resource consent⁶³ and remediation. Refer to sections 4.3.5 and 4.5.1 of this report for further discussion.

Overall I consider the proposal sufficiently aligns with Chapter B10 of the RPS.

4.7 Auckland Unitary Plan - Chapter D overlays

Section 9 of the NoR Report identifies that the only AUP overlay that applies to the site is the High-Use Aquifer Management Area Overlay – Pukekohe Kaawa Aquifer and notes that the proposed works do not involve any abstraction of groundwater.

I agree with this conclusion and therefore consider Chapter D is not applicable to this proposal.

4.8 Auckland Unitary Plan - Chapter E Auckland-wide

Chapter E provisions

Relevant Chapter E provisions are summarised below. Attachment 5 contains the relevant objectives and policies in full. These are discussed in more detail in sections 4.3.3 and 4.3.5 of this report.

Chapter E26 Infrastructure

Chapter E26 Infrastructure of the AUP provides a framework for the development, operation, use, maintenance, repair, upgrading and removal of infrastructure. The objectives and policies recognise that infrastructure is critical to the social, economic, and cultural well-being of people and communities and the quality of the environment. They also recognise that infrastructure can have a range of adverse effects on the environment, visual amenity of an area, and public health and safety.

⁶³ Regional consent and NES:CS

The requiring authority's NoR Report states that the objectives and policies of the Infrastructure section [Chapter E26] of the AUP largely mirror the objectives and policies relating to infrastructure in the proposal is in the RPS provisions of B3.

Chapter E26 objectives and policies are discussed in sections 3.1 and 6.2.e of the LVIA Report (Appendix D of the NoR).

In conclusion the NoR Report states:

For similar reasons as those relating to the RPS, the proposal is also consistent with the policy direction provided in the AUP(OP) (Section E26.2 Infrastructure), as the designation will:

- *recognise the benefits of and value of investment in infrastructure and the significance of electricity distribution.*
- *improve the resilience of infrastructure and enable continuity of service in the Bombay area through enabling the effective and efficient development, operation, maintenance, repairs and upgrading of the new Counties Energy substation; and*
- *avoid, remedy, and mitigate all potential adverse effects on the environment to the fullest extent possible, through the mitigation measures proposed and associated conditions.*⁶⁴

I agree with the NoR Report in relation to the first two bullet points, although note that elsewhere in the NoR Report it is states that the proposed substation will service North Pukekohe rather than Bombay.

I consider the proposal is consistent with E26.2.1 Objectives (1) – (6) and E26.2.2 Policies (1) - (3). They set a strong enabling framework that recognises the benefits of infrastructure, the need to provide for infrastructure and the need to protect infrastructure from reverse sensitivity issues.

E26.2.1 Objective (9) and E26.2.2 Policy (4) recognise that the development, operation and maintenance of infrastructure can cause adverse effects and that these should be avoided, remedied, or mitigated. These adverse effects include, but are not limited to, effects on the environment, the health and wellbeing of people and communities, and amenity values of the streetscape and adjoining properties. E26.2.2 Policy (5) provides guidance what should be taken into consideration when such adverse effects of infrastructure are assessed.

⁶⁴ AEE, Paragraph 13.4

With regards to the third bullet point listed above from the NoR Report, I agree that the adverse effects of the proposal can largely be avoided, remedied or mitigated with appropriate mitigation measures and conditions. However I do not agree that the proposed conditions and mitigation measures will do so “to the fullest extent possible”. I therefore propose further mitigation measures and amendments to the conditions that I consider necessary in order for the proposal to be consistent with the relevant objective and policies in Chapter E26.

Chapter E26 also provides for a range of permitted activities provided specific standards are met. The NoR Report identifies relevant permitted activities and standards in section 8.⁶⁵

In particular I note that Chapter E26 provides for the following permitted activities in the Mixed Rural Zone provided permitted standards are met:⁶⁶

- distribution substations (A17)
- substations within buildings (A18) and (A19)
- pole mounted transformers (A23)
- overhead electricity lines up to and including 110kV (A24).

An “unenclosed substation”, such as that proposed by this proposal is a restricted discretionary activity (A21).

Relevant permitted activity standards are discussed in sections 4.3.3 and 4.3.5 above including:

- E26.2.5.2 Activities within zones in Table E26.2.3.1 Activity table
 - (3)(a)(ii) Height
 - (5) Pole mounted transformers
 - (6) Electricity transmission and distribution (Electric and magnetic fields)
- E26.2.5.3 Specific activities within zones in Table E26.2.3.1
 - (2) Noise from substations

Chapter E26 also contains earthworks/land disturbance provisions for infrastructure.

These include standard E26.5.5.1 Accidental discovery rule which sets out what needs to happen if sensitive material is discovered. “Sensitive material” is defined and includes human remain and kōiwi, an archaeological site, a Māori cultural artefact/taonga tuturu, a protected New Zealand artefact, evidence of contaminated land or lava caves.

Overall I consider the proposal is consistent with the relevant provisions in Chapter E26 provided appropriate mitigation measures are undertaken and the recommended conditions are included in the NoR.

⁶⁵ Table 1 of NoR

⁶⁶ E26.2.3. Activity table, Table E26.2.3.1.

Chapters E1 Water quality and integrated management and E8 Stormwater – Discharge and diversion (RP)

In relation to the management of stormwater discharge and diversion Chapter E1 contains the objectives and policies and Chapter E8 contains the rules.

The requiring authorities Infrastructure Design Report (Appendix C of the NoR) states that site coverage (driveways and roofs) of the area to be designated will be under 1500m². Chapter E8.4 Activity table, Table E8.4.1(A7) – permits diversion/discharge of stormwater from impervious areas up to 5000m² outside urban areas. Therefore provided the relevant standards are met the proposal is unlikely to trigger the need for a regional consent.

Chapters E11 and E12 Land disturbance – Regional and District

For infrastructure activities Chapter E11 and E12 provide the policy framework (i.e. the objectives and policies) while the rules are contained in Chapter E26.

Overall I consider the proposal is consistent with the relevant provisions in Chapters E11 and E12 provided appropriate mitigation measures are undertaken and the recommended conditions relating to erosion and sediment control and the accidental discovery of sensitive material are included in the NoR.

See section 4.3.5 of this report for discussion.

Chapter E24 Lighting

The provisions for artificial light provide for adequate lighting to support activities and enable safety and security for participants, while minimising potential adverse effects.

Overall I consider the proposal sufficiently aligns with Chapter E24 provided adequate mitigation measures are included. See section 4.3.5 for discussion.

Chapter E25 Noise and vibration

Chapter E25 seeks to control the levels of noise and vibration created by activities to limit the adverse effects of noise and vibration on amenity values, human health and to protect existing noisy activities from reverse sensitivity effects.

Overall I consider the proposal is consistent with the relevant provisions in Chapter E25 provided appropriate mitigation measures are undertaken and the recommended conditions relating to operational and construction noise are included in the NoR.

See sections 4.2.2 and 4.3.5 above for discussion of relevant noise standards and potential effects.

Chapter E30 Contaminated Land

Chapter E30 manages the effects of the discharge of contaminants from contaminated land or land containing elevated levels of RMA. This is separate from and different to the NES (Soil).

As discussed in sections 4.3.5, 4.5.1, and 4.6 above any discharge of contaminants from land into air, water or land will be subject to the provisions in Chapter E30. Chapter E30 contains regional provisions, which continue to apply to designated sites. The findings of the requiring authorities DSI Report future resource consents may/will be required under the NES (Soils) and under the regional rules for discharges from contaminated soils when enabling earthworks to develop the site.

Overall I consider the proposal is consistent with the relevant provisions in Chapter E30 provided the appropriate consents are applied for/granted before works are started and the required mitigation measures are undertaken.

E31 Hazardous substances

Chapter E31 manages the use, storage and disposal of hazardous substances on land and in the coastal marine area that can present a specific risk to human or ecological health and property.

However the RLA Act removed the explicit function of regional and territorial authorities under section 30 and 31 to control the adverse effects of the storage, use, disposal and transportation of hazardous substances.

The Quality Planning website notes that the removal of these functions from sections 30 and 31 is to ensure that the RMA does not duplicate controls in the Hazardous Substances and New Organisms Act 1996 (HSNO Act) and the Health and Safety at Work Act 2015 (HSW Act). The Quality Planning website also states:

While councils do retain a broad power under the RMA to manage hazardous substances through their plans and policy statements to achieve the purpose of the RMA and to carry out the function of integrated management of natural and physical resources in their region/district, this should only be exercised where the potential environmental effects are not adequately addressed by other legislation.⁶⁷

Mr Qiu advises “... however assessment will still be carried out under E31 until a change to the Unitary Plan to remove these provisions is done, but it has not occurred to date.”

Overall I consider the proposal is consistent with the relevant provisions in Chapter E31 provided appropriate mitigation measures are undertaken and the recommended conditions relating to hazardous substances and bunding of the transformers are included in the NoR.

See section 4.3.5 above for further discussion hazardous substances.

⁶⁷ <https://www.qualityplanning.org.nz/node/1150> Accessed 20 March 2022

4.9 Auckland Unitary Plan – Chapter H Zones

The site is zoned Rural - Mixed Rural. Chapter H19 provides the main framework for the management of subdivision, use and development in the rural areas. The chapter contains objectives and policies relevant to all rural zones and include:

- H19.2.1 and H19.2.2 - general rural
- H19.2.3 and H19.2.4 that manage rural character, amenity and biodiversity values
- H19.2.5 and H19.2.6 that manage rural industries, rural commercial services and non-residential activities.

Chapter H19.4 contains objectives and policies specific to the Mixed Rural Zone.

Attachment 5 contains the relevant objectives and policies in full.

Chapter H19 provisions are addressed in sections 8 and 9 of the NoR Report and in sections 3.1 and 6.2.e of the LVIA Report (Appendix D of the NoR).

The outcomes anticipated in the Mixed Rural Zone and specific rules and standards are discussed in more detail in sections 4.2.2, 4.3.3 and 4.3.5 of this report.

In summary the purpose of the Mixed Rural Zone is to provide for rural production activities, generally on smaller rural sites and non-residential activities of a scale compatible with smaller site sizes while ensuring good amenity levels for rural lifestyle purposes. The zone also recognises that the “level of amenity” within the zone may not be the same found in other areas intended for rural lifestyle activities.⁶⁸

Overall I consider the proposal is consistent with the relevant provisions in Chapter H19 provided appropriate mitigation measures are undertaken and the recommended conditions are included in the NoR.

4.10 Alternative sites, routes or methods – section 171(1)(b)

Section 171(1)(b)(i) establishes that if a requiring authority has an interest in the land sufficient to undertake the works, then it is not required to consider alternative sites, routes or methods.

Section 171(1)(b)(ii) does require an assessment of alternatives if there are going to be significant adverse effects arising from the designation.

The requiring authority’s assessment of alternatives is set out in section 5 of the AEE.

In summary the NoR Report concludes that because they have entered into a sale and purchase agreement with the existing owners for the land that is required for the designation, they have sufficient interest in the land to undertake the works.

⁶⁸ H19.4.3 Policy (2).

In addition, the NoR Report concludes that the work will not have significant adverse effects on the environment and therefore an assessment of alternatives is not required.

In my opinion, provided Counties Energy does complete the purchase of the land required for the designation, they will have sufficient interest in the land to undertake the works. However until this happens, I consider section 171(1)(b)(i) requires a consideration of alternative sites. While Counties Energy have not provided much detail about their consideration of alternative sites the NoR Report does state:

5.1. Counties Energy has spent more than a year looking at alternative substation sites within the Pukekohe North supply area. After shortlisting 12 potential properties, each potential site was examined in terms of size, location, contour, environmental constraints, zoning, property values, and serviceability.

5.2. After evaluating all these factors, the subject site was identified as the most suitable location.

In my opinion the investigation of 12 alternative sites as stated by the NoR Report indicates that the requiring authority has not acted arbitrarily or not given more than a cursory consideration of alternatives. It is also acknowledged that actually getting the rights to a site is not an easy job for infrastructure providers despite the infrastructure being required for the current and future needs of an area. The fact that the wider area (to the east) is going to be subject to significant land use change and is the scene of a very active market as a result, may not have assisted Counties Energy in this regard.

I note that the requiring authority does not have to show it has selected the best of all available alternatives, just that a careful assessment has been made of the relevant proposal to determine whether it achieves the RMA's purpose.

4.11 Necessity for work and designation – section 171(1)(c)

The requiring authority has set out its specific project objectives in sections 1 and 5 of the NoR Report.

The NoR Report states that Counties Energy requires land for a new 110/22kv substation to meet the forecast electrical demand growth for the Pukekohe North area, including residential developments in Paerata Rise, Wesley and Karaka North.

The NoR Report concludes that the designation is reasonably necessary to achieve the project objectives.

I agree with this conclusion and therefore consider that the works and designation is reasonably necessary to achieve the requiring authority's objectives. In particular I note the significant urbanisation expected in the coming years within the Future Urban zoned area to the east of the proposed NoR. See section 2.3 for further detail.

4.12 Any other matter – section 171(1)(d)

Section 171(1)(d) requires the council to have particular regard to any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement. In this case the non-RMA documents are considered relevant.

The Auckland Plan 2050

The Auckland Plan 2050 replaced the Auckland Plan 2012 and was adopted by Auckland Council in June 2018. It is Auckland's long-term spatial plan that provides for how Auckland is expected to grow and change over the next 30 years and is required by the Local Government (Auckland Council) Act 2009 to contribute to Auckland's social, economic, environmental, and cultural well-being.

The Auckland Plan 2050 in its *Development Strategy* acknowledges the importance of Auckland's electricity network. It also includes the outcomes *Opportunity and Prosperity* and *Homes and Places* which relates to productivity and employment and access to housing respectively.

I consider the works enabled by the NoR to be consistent with Auckland Plan 2050 in that it will provide for the needs of new development that is currently occurring in the area, and the wider Auckland region, both residential and rural.

4.13 Designation lapse period extension – section 184(1)(c)

Section 184 of the RMA states that designations lapse within five years, if not given effect to, or an extension has been obtained under section 184(1)(b), or unless the designation in the AUP sets a different lapse period under section 184(1)(c).

The requiring authority has requested a 10-year lapse period for the NoR. The requiring authorities NoR Report states:

The development of the switch room and transformers is expected to begin within the next 10 years in readiness for anticipated increased load as a result of residential development taking place Paerata Rise and Pukekohe North.

Section 184 of the Act gives discretion to alter the lapse period for a designation from the default 5 years. The Environment Court decision in *Beda Family Trust v Transit NZ A139/04* makes the following statement on the exercise of that discretion in considering a longer lapse period:

The decision has to be exercised in a principled manner, after considering all of the circumstances of the particular case. There may be circumstances where a longer period than the statutory 5 years is required to secure the route for a major roading project. Such circumstances need to be balanced against the prejudicial effects to directly affected property owners who are required to endure the blighting effects on their properties for an indeterminate period. The exercise of the discretion needs to be underlain by fairness.

Environment Court decisions on disputed designation lapse periods are noted in the following table for reference purposes.

Case	Requiring authorities requested lapse period	Court decision lapse period
Beda Family Trust v Transit NZ	20 years	10 years
Meridian 37 Ltd v Waipa District Council	15 years	5 years
Heron v Vector Gas Ltd	10 years	5 years
Queenstown Airport Corporation Ltd	10 years	5 years

In particular I note that in *Queenstown Airport Corporation Ltd*, the Court found that there was insufficient evidence provided in relation to the 10 year lapse date sought by the Requiring Authority and stated:

*In the absence of any cogent evidence addressing these matters, the statutory lapse period of five years is confirmed.*⁶⁹

In my opinion the NoR Report does not provide sufficient reasons or evidence that would support the need to extend the lapse date to 10 years. I also note that the two most recent Counties Energy substation designations (#3009 and #3010) included within the AUP both have a lapse date of five years from inclusion in the AUP.

Counties Energy might be able to provide further information about why they require a period longer than the standard five years. In the meantime, with the current information available I recommend a lapse period of five years for the designation.

4.14 Part 2 of the Resource Management Act 1991

The purpose of the RMA is set out in section 5(1) which is: *to promote the sustainable management of natural and physical resources.*

Sustainable management is defined in section 5(2) as:

...managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –

- (a) *sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*

⁶⁹ Queenstown Airport Corporation Ltd [2013] NZEnvC95, Paragraph 36

- (b) *safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- (c) *avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

Section 6 of the RMA sets out the matters of national importance which must be recognised and provided for.

Section 7 of the RMA sets out other matters which shall be given particular regard to.

Section 8 of the RMA requires the principles of the Treaty of Waitangi to be taken into account.

Part 2 of the RMA has been addressed in Section 10 of the NoR Report which concludes that the proposal will be consistent with Part 2 of the RMA. This is summarised below.

- In relation to Section 5(2) of the RMA the NoR Report states: *“The provision of electricity to the Pukekohe North area is required to enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety to meet the foreseeable needs of future generations. The avoidance, mitigation and remediation measures associated with the proposal will safeguard the life-supporting capacity of air, water, soil, and ecosystems (section 5(2))”*.
- In relation to Section 6(e) the NoR Report states the proposal will meet Section 6(e) – The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga. It notes the consultation Counties Energy has undertaken with iwi who have an interest in the area, including Ngāti Tamaoho who have a Statutory Acknowledgement Area for the area.
- In relation to Section 7 of the RMA the NoR report states that the proposal will:
 - result in the efficient use and development of natural and physical resources, noting it will distribute electricity (Section 7(b))
 - maintain and enhance amenity values through the use of mitigation measures and conditions (Section 7(c))
 - maintain and enhance the quality of the environment, noting that the proposal will enhance the security of the electricity supply to Pukekohe North, while mitigation measures and proposed conditions will avoid, remedy or mitigate any adverse effects on the environment.

I generally agree with this assessment although make the following observations:

- At paragraph 10.6 the NoR Report particularly refers to the existing distribution network in Bombay. It is unclear if this reference should be to North Pukekohe or Bombay.

- At paragraph 10.15 the NoR Report states that “... *the substation equipment will be built into the ground*” indicating this will help the proposal meet the requirements of Section 7(c) of the RMA. Elsewhere the NoR Report states “...*The proposed earth works at the site will be related to site clearance, construction of level yard platform, excavation for driveways, foundations, and buildings.*” Based on the information provided in the NoR Report and Infrastructure Design Report (Appendix C of the NoR Report) is unclear if the proposal will be “built into the ground” or to what extent this will mitigate adverse effects on visual amenity.
- I have discussed the mitigation of adverse effects on amenity values in sections 4.2.2 and 4.3.5 above and recommend further amendments to the conditions proposed by Counties Energy.
- The NoR Report does not include consideration of Section 8 of the RMA. Principles of the Treaty of Waitangi include (but are not limited to) participation, tino rangatiratanga, and protection of Māori natural, physical, cultural and spiritual resources. Based on the information provided in the NoR report about consultation with mana whenua, the cultural impact assessment from Ngāti Tamaoho, and the proposed conditions (accidental discovery protocols, ongoing consultation with Ngāti Tamaoho) I consider the proposal has taken into account the principles of the Treaty of Waitangi. See sections 4.3.5 and 4.6 above for further discussion.

Overall I consider the proposal, with recommended amendments to the conditions and Indicative Planting Plan, will be consistent with Part 2 of the RMA.

5 Conclusions

The requiring authority has lodged the NoR under section 168 of the RMA for the establishment of a new substation at 8 Whangapouri Road, Karaka.

It is recommended that the requiring authority provide further information at the hearing to clarify the following matters

- Why is a 10 year lapse date required? (see section 4.13)
- Whether Counties Energy is continuing to seek alternative sites for the proposed substation (See section 4.2.2 Franklin Local Board views).
- Whether Counties Energy has undertaken discussions with affected neighbours and if not when it will (See section 4.2.2 Franklin Local Board views).
- If Counties Energy are still seeking to delete specific conditions what the implications of this would be and how the adverse effects of the proposal relating to those conditions would be avoided, remedied or mitigated.
- Additional consideration about the design of the substation.

It is also recommended that Counties Energy revises the “Indicative Planting Plan” and updates the LVIA Report for the reasons set out in section 4.3.5. The Indicative Planting Plan should be revised to address the following:

- Provides for a screen of tall planting (4-5m within 10 years and 8m thereafter), at least two rows deep, that lines the entire boundary shared with 14 Whangapouri Road. Such planting does not have to comprise native species, but must be evergreen.
- Similar planting should line the site's western (Whangapouri Road) and southern (Karaka Road) boundaries, again incorporating at least two rows of tall planting at least two rows deep.
- The depth and height of planting indicated above should be retained near the intersection of Karaka Road with Whangapouri Road, irrespective of Chris Freke's road sightline. This may well mean utilising more of the subject site than is currently indicated for such planting.

That the notice of requirement should be **confirmed subject to the recommended conditions**, for the following reasons.

- The notice of requirement and associated works are reasonably necessary for achieving the objectives of the requiring authority.
- Adequate consideration has been given to alternative sites, routes or methods of undertaking the work identified in the notice of requirement.
- The notice of requirement is generally consistent with the relevant AUP provisions.
- The notice of requirement is generally in accordance with Part 2 of the RMA and; and relevant national environmental standards and national policy statements.
- Restrictions, by way of conditions, imposed on the designation can avoid, remedy or mitigate any potential adverse environmental effects.

6 Recommendation and conditions

6.1 Recommendation

Subject to new or contrary evidence being presented at the hearing, and the requiring authority supplying adequate responses on issues raised in the body of the report, pursuant to section 171(2) of the RMA, it is recommended that the notice of requirement be confirmed, subject to the amended and additional conditions proposed in this report. That pursuant to section 171(3) of the RMA the reasons for the recommendation are as follows:

- The notice of requirement is consistent with Part 2 of the RMA in that it enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety.
- The notice of requirement is consistent with and give effect to the relevant national environmental standards, national policy statements and the AUP.

- In terms of section 171(1)(b) of the RMA, adequate consideration has been given to alternative sites, routes or methods for undertaking the work.
- In terms of 171(1)(c) of the RMA, the notice of requirement is reasonably necessary to achieve the requiring authority's objectives.
- Restrictions, by way of conditions attached to the notice of requirement have been recommended to avoid, remedy or mitigate adverse environmental effects associated with the works.

6.2 Recommended conditions

Attachment 4 contains a 'marked-up' version of my recommended condition

7 Attachments

Attachment 1: Application documents and section 92 request and responses

Attachment 2: Specialists' reviews

Attachment 3: Submissions

Attachment 4: Recommended conditions

Attachment 5: Relevant AUP objectives and policies

ATTACHMENT 1

NOTIFICATION DOCUMENTATION AND S92 MATERIAL

This documentation is available online and not being reproduced here. To view the documentation go to <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/unitary-plan/auckland-unitary-plan-modifications/Pages/details.aspx?UnitaryPlanID=121>

ATTACHMENT 2

AUCKLAND COUNCIL SPECIALIST REVIEWS

Brown NZ Ltd
PO Box 137 067
Parnell
Auckland 1151

2nd November 2021

Katrina David | Senior Policy Planner
Central & South Planning | Plans and Places
Auckland Council

Email: Katrina.David@aucklandcouncil.govt.nz

Dear Katrina,

RE: Pukekohe North Substation NOR Application: Landscape Effects Review

This review report addresses the landscape and visual effects of a proposed NOR designation application for a new Counties Power Substation next to residential properties at 8 Whangapouri Road, Karaka (Lot 2 DP 473807), for the installation of an electricity substation. The site is located on gently sloping terrain that abuts the intersection of SH22 (Karaka Road) and Whangapouri Road. Whangapouri Road becomes Bycroft Road on the southern side of that intersection, while residential properties at 5 and 14 Whangapouri Road, together with another residence opposite, at 383 Karaka Road, flank the site. Open paddocks dominate much of its wider landscape setting, although a number of lifestyle properties are found up Bycroft Road to the south, and scattered pockets of housing are also apparent off Karaka Road both east and west of it (see Appendix D Figure 1 below). These are often enclosed by shelterbelts, hedgerows and amenity planting.



Figure 1 Site location in 1:8000 Context (Google Maps)

The proposal is described in the Appendix D of the NOR Designation, prepared by Align Ltd (October 2021), as comprising:

- A 110kV outdoor air-insulated switchgear switchyard, including gantry structures in the middle of the site for incoming 110kV lines;
- A 22kV concrete switch-room (19m long, 7.5m wide, 4.5m high);
- 110/220kV Outdoor power transformers;
- A longitudinal strung busbar, comprising 10m high gantry structures;
- Sealed vehicle accessways; and
- A 3m high steel mesh security fence around the compound's perimeter.

The report prepared by Align Ltd describes the various aspects of the proposal in more detail, together with the landscape around the application site, before then addressing the proposed substation's landscape and amenity effects. This assessment is supported by:

- Photographs of the application site;
- Photographs of parts of the surrounding area / landscape;
- Photos from Karaka Road and the corner of Whangapouri Road – approaching and opposite the application site;
- A photo of the existing Tuakau Substation – comparable to the current proposal;
- An AUP zoning plan (Figure 10);
- A Landscape Plan (Figure 13) showing proposed mitigation planting around the site;
- A Visual Catchment Plan (Figure 14);
- Photomontages showing the substation with mitigation planting at 5 years and 10 years of growth (Figures 18 -27) – from the opposite side of:
 - the Karaka Road / Bycroft Road intersection,
 - Whangapouri Road,
 - Karaka School Lane and
 - Outside 5 Whangapouri Road.

Appendix D's Graphic Attachment contain a bundle of photos and simulations that further help to provide an understanding of the site and its landscape setting. The Attachment also includes the aforementioned photomontages, which further assist with assessment of the proposal's appearance from a range of vantage points and the level of mitigation that the proposed planting would provide.

Three aspects of the application discussed in Appendix D are particularly worthy of note. The first of these involves reconfiguration of the application site and adjoining residential property at 8 Whangapouri Lane. This would see an existing minor household unit (MHU) removed from the substation site and relocated eastwards – onto the subdivided residential part of the site that is within part of the overall site at present. The combination of existing housing, relocated MHU, various garages and sheds, and planting down that side of the property would establish a significant buffer between the proposed substation and properties to the east of it – as well as Karaka Road. The owners of 8 Whangapouri Lane are working with Counties Power in relation to the NOR application and are therefore not an 'affected party' in relation to the proposal.

Secondly, Appendix 5 states at page 29 that the property at “5 Whangapouri Road was recently purchased with the intention of becoming a storage yard for a commercial building firm. Residential amenity for current residents will not be affected by the designation as the proposed substation works are planned in several years’ time.” In fact, consent has been granted for the development of a 5-bedroom dwelling on the property and effects on it are also germane to the NOR application.

Finally, 14 Whangapouri Road is identified by Align as comprising “a converted residential dwelling operating as Buddhist temple” on page 31 of Appendix D, and the Align report then going on to state that: “As the temple is not occupied as a residence full time it is not considered a highly sensitive receptor.” However, I have been unable to corroborate this statement. The subject property, directly north of the NOR site, is not identified as a religious gathering place at all and simply appears to comprise a dwelling, garden and vehicle circulation area. It is separated from the proposed substation site by a mature Pittosporum hedge that appears likely to soon reach the end of its natural life.

Review

I have reviewed the Align Application and Landscape Effects Report. Employing the various viewpoints identified around the application site, together with a range of photos and simulations, it concludes that (p.36):

.....To assess the impact of the proposal, photo montages were prepared for viewpoints (VP01-05) representative of residences potentially impacted by the site. The viewpoints represented the site from close and distance locations, and the mitigation established over 0-5 year and 5–10-year timeframes. A conclusion of the assessment is that mature mitigation planting is highly relied upon for reducing visual impacts and enhancing amenity for the site. In addition, it was found that the scale of the proposal integrates with the features of the wider landscape, such as the surrounding vegetation and existing buildings and infrastructure. Modelling of the proposal does not appear to stand out within a wider landscape context however, modelling should be treated as indicative only at this stage, as the site-specific design is not yet confirmed for designation.

The visual assessment in Section 6.1 considered the overall effects of the proposal to be Low to Moderate. Close-up perspectives illustrate greater visual impact of the proposal on the immediate environment and the neighbouring properties. Broader landscape views absorbed the proposal within the existing features of the landscape. Mitigation planting around the perimeter will lessen the visual impact and enhance amenity of the site over a timeframe exceeding 5 years.

Overall, the magnitude of effects resulting from the proposal are considered acceptable for the site, which is not considered highly valued rural land. It is worth noting that as the landscape continues to change over time because of zoning provisions and with that, the landscape characteristics which are valued will also change. As the Mixed Rural Zone provides for integration of non-rural activities, the substation designation will provide the necessary infrastructure to facilitate changes from rural to residential character.

Align’s assessment also addresses a range of AUP provisions and reaches conclusions in relation to them. These include the following excerpts:

B9.2.1. Objectives - Rural activities

The subject site is positioned within a small area of residential intensification which provides suitable context for development and does not detract from the wider rural environment, as shown in the visual assessment VP02, VP03 & VP04. Mitigation planting is proposed which will improve amenity and biodiversity values immediately surrounding the site

B9.2.1. Policies - Rural activities

..... Diverse activities provide context for the substation at this location and intensification surrounding the intersection reduces sprawl that could result from the designation being in a purely rural environment. It is worth noting that the land is not currently utilised for rural activity and given its constrained nature it is unlikely to be a valuable piece of rural land. The finer grain nature of development around the subject site means the effects on the greater rural area of the site is low.

H19.4.2. Objectives – _Mixed Rural

The wider landscape is primarily rural, the Mixed Rural Zone provides for this and some low-density development of non-rural activities. The substation will improve resilience in the existing electricity network to support the growth of non-rural activities within the Mixed Rural Zone and for residential growth in the wider region.

H19.4.3. Policies – _Mixed Rural

The scale of the proposal is keeping with the height of existing infrastructure within the SH22 road corridor adjoining the site, and the switch room building is comparable in scale to surrounding residential dwellings. Mitigation planting is relied upon to screen the visual effects of the proposal and the visual effects have been assessed as low overall.

E26.2.2. Policies - Adverse effects of infrastructure

..... The change in landscape character is experienced primarily by passing motorists and a limited number of residents and visitors to the buildings surrounding the Whangapouri Road intersection. The establishment of mitigation planting will help to improve the amenity of the streetscape once mature, which will contribute positively to the neighbouring properties regardless of their non-residential purposes.

26.2.7.2. Assessment criteria

The cumulative effects of the proposal on the adjoining properties and on the wider landscape have been assessed in Section 6.1 Visual Assessments and Section 6.2 Landscape Effects. In summary, the adverse effects on adjoining properties will be mitigated long term by mature mitigation planting (5-10 years), and the cumulative effects on the wider landscape are considered minor as the scale of the proposal has low visual impacts when viewed within the wider landscape context

Three themes emerge from this assessment – that:

1. The subject site and, to a certain extent, its more immediate surrounds are already modified and not really rural in nature.
2. The substation’s effects would be strictly localised, mainly impacting on the immediately adjoining residential properties – primarily 8 and 14 Whangapouri, although such effects are effectively discounted for the reasons outlined above.
3. The proposed planting around the substation site will largely mitigate any effects in relation to SH22 / Karaka Road, Whangapouri Road, Bycroft Road and other residential properties.

In effect, the proposed substation is identified as (pp.31 and 32) as having a low to moderate level of effect because it is located within a pocket of residential intensification which provides an appropriate context of that type of development, and would – notwithstanding this situation – impact on few, if any residential neighbours. Any effects in relation to Karaka Road, Bycroft Road, Whangapouri Road and the wider rural /

lifestyle communities would be minimised by the proposed planting around the substation – more so over time.

In response to these findings, I agree that the proposed substation's effects in relation to its wider surrounds (ie. beyond the bounds of the residential properties in its immediate vicinity) would be of a relatively low order for a number of reasons:

- The existing site contains a mixture of dwellings, garages sheds and planting that contribute little to the rural character of the wider Karaka landscape and have little amenity value. The current site is highly modified and, together with development on 14 Whangapouri Road, especially, it conveys the feeling of being part of a residential cluster around the Karaka Road / Whangapouri Road / Bycroft Road intersection.
- The substation would largely meld with the collection of residential buildings, hedgerows, shelterbelt and amenity planting already concentrated around the intersection.
- Relocation of the MHU on the subject site would consolidate the strip of residential structures and planting down its eastern side, helping to contain and screen the proposed substation.
- Over 10 years or so, the proposed titokis and other planting would combine with this array of existing structures and planting to further isolate the substation site – much as depicted in the photomontages accompanying Appendix D.
- Effects in relation to Karaka Road – a key route to and from Waiuku – would be tempered by the application site's limited exposure to motorists heading westwards, away from the Southern Motorway. By and large, the substation would be viewed in a fleeting fashion as vehicles crest the ridge immediately east of the site, then pass it. Approaching from the west – and heading towards the motorway – it would be glimpsed as Karaka Road twists and turns towards the Whangapouri Road / Bycroft Road intersection. Yet, the qualitative changes associated with the change from an intersection framed by residential development into one flanked by houses, a substation and planting would be quite limited. Little would be lost in terms of the locality's landscape character or amenity values.
- Views of the substation from Bycroft Road and Whangapouri Road would also be quite limited until virtually at it. Planting both sides of Bycroft Road would conceal the substation until motorists travelling down it are virtually at the Karaka Road intersection, whereas the existing house and planting on 14 Whangapouri Road would help to screen the substation when approaching from that direction. Again, there would be little awareness of the substation until virtually at the intersection with SH22.

In addition, it is my assessment that the substation would be largely screened from the residence at 383 Karaka Road (and its curtelage) by the array of palms, hedgerows and quite intensive mix of other planting which already encloses that property. The occupants of it would still see the substation in the course of daily activity in an out of it via Bycroft Road, and it would clearly become part of their local 'neighbourhood'. However, the level of screening around the periphery of that property is already so significant that any direct effects in relation to it would be of a low order. These would be further reduced as the proposed planting between the substation and Karaka Road matures.



Looking towards the substation site & Karaka Road from the entrance to 3838 Karaka Road off Bycroft Road



Looking towards the substation site from Bycroft Road across the intersection with Karaka Road

Having therefore agreed with the Align report in relation to most surrounding areas, I do, however, have some concerns about the findings in relation to 5 and 14 Whangapouri Road, and the absence of conditions in relation to the size of the future substation.

5 Whangapouri Road

It now appears that a house will be built on 5 Whangapouri Road and views from that property to the application site are very open and direct at present. The proposed planting down the edge of the site facing Whangapouri Road would be substantial and would – beyond 5-8 years (approximately) – afford a reasonable degree of screening. It would not however, screen all of the proposed substation, its transformers or overhead bus. As a result, views across the road would take on a much more industrialised, utilitarian character than is presently the case. Inevitably, this would have an adverse effect on perception of the immediate road environs and that part of 5 Whangapouri Road closer to that road frontage.

The local landscape would become even less rural than at present and it would lose much of its residual appeal. In turn, this would impact on the ‘pleasantness’ and ‘aesthetic coherence’ of that same landscape. These effects would initially be of a moderate-high to high order, in my assessment, dropping to a low-moderate level over time, when the ‘native hedge’ next to the substation reaches full maturity.



Looking towards the substation site from the previous driveway to 5 Whangapouri Road

14 Whangapouri Road

Very similar effects would arise in relation to the occupants of 14 Whangapouri Road. Notwithstanding the presence of the intervening Pittosporum hedge, it would be difficult to ignore the presence of the transformers and bus at the rear (northern end) of the substation site, particularly if the Pittosporums start to deteriorate – as they inevitably will. ‘Small trees’ along that same boundary might help to screen the more grounded components of the substation, but are unlikely to screen the transformers, bus or connecting lines. The closer proximity of the residence at 14 Whangapouri Road to these units is of concern and it is therefore anticipated that the sense of incursion and intrusion generated by them would be significant.

Again, this would have an impact on the perception of living within a rural, or at least semi-rural, landscape, while awareness of the transformers and bus would inevitably erode both the rural and residential amenity values of 14 Whangapouri Road. In my assessment, such effects would again be of a moderate- high order in the short to medium term, and could reduce to a moderate level – perhaps lower – as the new planting matures. However, given uncertainty over the likely effectiveness of the existing hedge much beyond 8-10 years, I am concerned that the proposals’ effects might well return to a higher level again in the longer term (as the Pittosporums die out) without other additional planting.



Looking across 14 Whangapouri Road towards the substation site

Potential Mitigation

In response to this situation, it is my opinion that discussions should be entered into by the applicant with both neighbours, exploring the potential for additional planting around the proposed right-of-way to the residential unit on 8 Whangapouri Road and down the road frontage of 5 Whangapouri Road. I consider that such measures are required to help maintain the residential amenity enjoyed by the owners / occupants of both neighbouring properties, and as such it is appropriate to look beyond the bounds of the future substation site alone.

Consent Conditions

In addition, while I am comfortable with the conditions in Appendix G of the NOR addressing the maintenance and replacement of the proposed mitigation planting (Condition 15) and the materiality and colours of the substation buildings (Condition 16), no limit is suggested in relation to the ultimate size of those and other structures on site, including the elevated bus. Align’s assessment and my review rely on both the buildings and structures developed on site being similar in scale and height to those depicted in Align’s photomontages. Consequently, if the future substation exceeds the envelopes indicated in those images, the resulting level of effect could be appreciably greater than both Align and myself have indicated.

Consequently, it is my opinion that Counties Power should confirm some limits for the building and structural development proposed on the subject site. Without this, both Align’s assessment and my review are of little real value.

Conclusions

Assessed against relevant provision of the AUP, Align’s findings are considered appropriate and justifiable in most respects. They reflect the landscape character and rural amenity values of most of the receiving environments around the application site, the level of exposure that the NOR proposal would have in relation to those catchments, and the likely effectiveness of the mitigation planting also proposed.

Even so, I retain concerns about the likely effects that the proposed substation would have on 5 and 14 Whangapouri Road. These effects have not been addressed in Align’s report, whereas I am of the view that they need to be acknowledged and the proposed mitigation plan should be modified to respond to the effects identified – subject to consultation with both neighbouring landowners.

Finally, the absence of a condition addressing limits to the scale of development across the subject site remains a matter of concern. Without a degree of certainty in this regard, both Appendix D and my review have limited value.



Stephen Brown

BTP, Dip LA, Fellow NZILA



LANDSCAPE / AMENITY EFFECTS RATING SCALE

In relation to the rating of effects for each viewpoint, the following 7-point rating scale is employed:

<i>Adverse Effects:</i>		<i>Adverse Effects Rating:</i>	<i>RMA / Common Terminology:</i>
1	<i>No appreciable change to landscape character, together with landscape & amenity values: no visual intrusion / 'nuisance'</i>	<i>Very Low Effect</i>	<i>Less than Minor</i>
2	<i>Limited change to landscape character; no appreciable change to landscape & amenity values: no visual intrusion / 'nuisance'</i>	<i>Low Effect</i>	
3	<i>Increasingly evident change to landscape character; limited change to landscape & amenity values & a low level of visual intrusion / 'nuisance'</i>	<i>Low - Moderate Effect</i>	<i>Minor</i>
4	<i>Appreciable change to parts of the local landscape; more obvious impact on some landscape & amenity values, but still limited visual intrusion / 'nuisance'</i>	<i>Moderate Effect</i>	<i>More Than Minor</i>
5	<i>Marked change to parts of the local landscape; obvious impact on some landscape & amenity values, including evident visual intrusion / 'nuisance'</i>	<i>Moderate - High Effect</i>	<i>Significant</i>
6	<i>Obvious changes to landscape character with degradation of landscape & amenity values, including obvious visual intrusion / 'nuisance'</i>	<i>High Effect</i>	
7	<i>Severe degradation of landscape & amenity values accompanied by high levels of visual intrusion / 'nuisance'</i>	<i>Severe Effect</i>	

This scale is aligned with the 7-point scale of ratings recommended by the NZ Institute of Landscape Architects (*Best Practice Note: Landscape Assessment And Sustainable Management 10.1*).

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21st November 2021

Katrina David | Senior Policy Planner
Central & South Planning | Plans and Places
Auckland Council

Email: Katrina.David@aucklandcouncil.govt.nz

Dear Katrina,

RE: Pukekohe North Substation NOR Application: Supplementary Memo

This memo addresses Counties Energy's response to matters raised in my primary review report dated the 2nd November 2021. Those matters pertained to the proposed Conditions of Consent and effects in relation to 5 and 14 Whangapouri Road.

Conditions of Consent

In my primary report I raised the following issues in relation to the then proposed conditions:

" while I am comfortable with the conditions in Appendix G of the NOR addressing the maintenance and replacement of the proposed mitigation planting (Condition 15) and the materiality and colours of the substation buildings (Condition 16) , no limit is suggested in relation to the ultimate size of those and other structures on site, including the elevated bus. Align's assessment and my review rely on both the buildings and structures developed on site being similar in scale and height to those depicted in Align's photomontages. Consequently, if the future substation exceeds the envelopes indicated in those images, the resulting level of effect could be appreciably greater than both Align and myself have indicated.

Consequently, it is my opinion that Counties Power should confirm some limits for the building and structural development proposed on the subject site. Without this, both Align's assessment and my review are of little real value."

A new set of conditions has now been furnished by Align and these now include the following Condition 7:

Maximum Height of Structures

7. *The maximum height of poles (excluding insulators) and support structures within the designated area shall be 17m, and all other buildings must not exceed the maximum 15m height limit for buildings in rural zones.*

In my opinion, this new condition appropriately responds to the matter raised in my report and is appropriate.

In addition, new Condition 8 states that “*Buildings must not be located within 10m of the Whangapouri Road boundary*”. This condition will help maintain a degree of spatial buffering down that road margin and prevent any potential encroachment on the mitigation planting down that boundary in the future. Again, I support this condition and consider it to be appropriate.

Revised Condition 1(e) also requires the the provision of a Landscape Plan, addressing the mitigation of landscape and amenity effects, as part of the Outline Plan of Works. Again, this is considered appropriate, given the close proximity of residential properties to the application site and the importance of the mitigation planting proposed in this regard.

Effects on 5 & 14 Whangapouri Road

Align’s response to my review report and Council’s queries in relation to 5 and 14 Whangapouri Road indicate that the former is to be used for ‘show home’ purposes, while 14 Whangapouri Road is the residence of a ‘church’ – and not a residential property. Comparison is also drawn between the proposed outdoor substation and indoor substations, which are a Permitted Activity on the application site, while a diagram suggests that the greater bulk of proposed substation structures would be screened by the planting down the boundary shared with 14 Whangapouri Road.

In my assessment, commercial or institutional activities on 5 and 14 Whangapouri Road would help to reduce my concerns in relation to both properties. In terms of effects, the situation is slightly more complex: I don’t believe any reliance can be placed on a Pittosporum hedge providing effective screening down the shared boundary much beyond the short to medium term at most. It would not afford an enduring buffer between the substation and the neighbouring property at no.14. On balance, therefore, if Council is satisfied that 14 Whangapouri Road is occupied for institutional purposes then I accept that the current planting would provide an adequate ‘filter’ between that property and the substation. However, it would still need to be replaced in the longer term – beyond 8-10 years. If that neighbouring property still as some residential occupation component, then a strategy is required to supplement and replace the current hedge over a time frame to be agreed between the Light of Mercy Charitable Trust and Counties Power.

Turning to effects on 5 Whangapouri Road, while and indoor substation may be permitted on the subject site, the very industrial nature of outdoor transformers and overhead buses is not, in my view, truly consistent with a rural context – particularly when viewed at quite close range – even if the scale of the individual components is less than exceptional. On the other hand, the proposed mitigation planting down the edge of Whangapouri Road should still provide a reasonably effective buffer between a substation on the subject site and future development on that neighbouring property – ‘show home’ or otherwise. On balance, I consider that would provide adequate screening and buffering down that frontage.

Stephen Brown

BTP, Dip LA, Fellow NZILA



From: [Stephen Brown](#)
To: [Katrina David](#)
Subject: Re: Affected landowner - 8 Whangapouri Rd - Approval update
Date: Thursday, 2 December 2021 7:56:40 am
Attachments: [image001.png](#)

Hi Katrina,

In reply to your comments:

1. I still think that, with the limits now imposed on the height of future substation structures (Condition 7), effects would be of a **low** order for the wider rural / lifestyle setting around the application site. This includes properties down Bycroft Road and at 383 Karaka Road – opposite the subject site.
2. In relation to 5 Whangapouri Road, I still consider that effects would initially be **moderate-high**, but would reduce to a **low-moderate** level after approximately 8-10 years, as the proposed mitigation planting facing that road matures.
3. Effects would vary for 14 Whangapouri Road, depending on that property's use:
 - They would be **low** for irregular, institutional activities such as a church which has a strong focus on activity inside the church building.
 - However, they would initially start at a **moderate** level for residential activities on site – elevated by the close proximity to the transformers and bus, but also limited by the intervening Pittosporum hedge.
 - When this existing planting dies off, however, the effects in relation to a 'residential' No.14 could increase to a **high** level in the future, without significant replacement planting.

For this reason, I strongly support the 10m buffer strip (no substation plant) down Whangapouri Road, and Counties Power entering into discussions with the neighbouring properties at 5 and 14 Whangapouri Road in relation to mitigation planting.

Regards,
Stephen

Stephen Brown
Director

brown

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Auckland 1151

25th March 2022

Katrina David | Senior Policy Planner
Central & South Planning | Plans and Places
Auckland Council

Email: Katrina.David@aucklandcouncil.govt.nz

Dear Katrina,

RE: Pukekohe North Substation NOR Application: 2nd Supplementary Memo

This memo has been prepared in response to matters raised by submitters and further review of the Counties Energy substation proposal, including the proposed Conditions. Among the matters that have been raised in public submissions are:

- Confirmation from the submitter that 14 Whangapouri Road is being used for residential occupation; and
- Confirmation that 5 Whangapouri Road is currently being used for commercial purposes – with a show-home presently on site – but will revert back to residential occupation within 5 or so years.

In addition, I have reviewed Chris Freke’s traffic engineering report for Council, which recommends the protection of a sightline from Whangapouri Road over part of the mitigation planting proposed by Counties Energy. That sightline would restrict the height of planting near the intersection of Whangapouri Road with Karaka Road, such that even the flax planting proposed by Align would, when mature, exceed proposed Condition 14 (a), as set out below:

No landscaping , planting or other objects exceeding 80cm in height shall be located within a right angled triangular area with sides of 5m length located on the southwestern corner of the site as measured from the WKNZTA designation existing on 31 March 2022

Changes To The Local Environment

Having revisited the area around the NOR site, four changes are most apparent:

- 5 Whangapouri Road is now occupied by a large show home, still under construction for Navigation Homes. This show-home is located close to the margins of both Karaka Road

and Whangapouri Road, directly opposite the proposed substation site. An old section of timber batten fencing – approximately 2m high – has been extended down the Whangapouri Road frontage both sides of the property’s driveway, with the southern section of fencing now reaching the legal boundary of Karaka Road.

- A cryptomerias shelterbelt on the edge of 10 Bycroft Road running down to that road’s intersection with Karaka Road has been removed. This means that two residences at 14 Bycroft Road might be able to see the proposed substation, although they would still look through a second line of cryptomerias that run down no.10’s western boundary.
- A cluster of residential development off Karaka School Lane – near an historic church (now Karaka Interiors) abutting Karaka Road has been enlarged and consolidated since my last site visit in November 2021.
- Part of a line of macrocarpas running down the western side of a residence at 364 Karaka Road – east of the substation site appears to have either blow over or is in the process of being removed, while the rest of that shelterbelt appears to be dying. However, a drop of approximately 6m from the eastern edge of the application site to that residence, together with vegetation (including old orchard trees and palms) and residential buildings lining the eastern side of the NOR site, would still provide a significant buffer between the house at 364 Karaka Road and the proposed substation.

These changes would not, in my opinion, appreciably change the relationship of the substation with its wider, largely (but not entirely) rural, setting. Away from Karaka and Bycroft Roads, that landscape setting remains largely dominated by swathes of pasture intermixed with shelterbelts, pockets of riparian and amenity planting, farmhouses and farm buildings. A scattering of glasshouses, orchards, hedgerows and residential clusters is also apparent within the NOR site’s wider surrounds.

However, closer to both roads, the local landscape comprises even more of a ‘mixed bag’, with paddocks both sides of Karaka Road interspersed with lifestyle / large lot blocks, the aforementioned residential cluster near Karaka Primary School (off Blackbridge Road), a more sporadic array of residential properties that are both stand-alone and in small pockets, and even an apparently unused pack-house or storage shed of considerable size at 417 Karaka Road – close to the houses mentioned above on 14 Bycroft Road.

Of note, it still appears that the property at 14 Whangapouri Road is being used for residential occupation and use. At present, it is my view that the property needs to be addresses as if this were so.

Re-evaluation of the Proposed Substation’s Effects

On the basis of the situation now apparent around the subject site, I remain of the view that the substation would not have a significant effect in relation to the character of the largely rural landscape around Karaka Road and nearby parts of both Whangapouri and Bycroft Roads. To a certain degree, the proposed substation would exacerbate the ongoing erosion of rural landscape character and values within the northern Franklin / Karaka area, but those changes already include intensification of farming and horticultural operations (eg. the glasshouses and pack-houses mentioned above) and the increased subdivision of farmland – creating pockets of development like that next to the Karaka Primary School.

As a result, the proposed substation would be a relatively minor component of this clearly discernible transition away from a 'rural' environment that was, until quite recently, still largely dominated by farmland and pastoral farming activities. In my assessment, the proposed substation's effects would remain of a low order, much as described in my first Supplementary Report of November 2021.

I further consider that effects in relation to the residence at 364 Karaka Road and those at 14 Bycroft Road would also be of a low order. Views from 364 Karaka Road would be buffered by the rising ground east of the NOR site, together with the residential development and garden vegetation next to it; while the two semi-detached houses at 14 Bycroft Road would still be largely screened by the remaining cryptomeria shelterbelt described above and their general orientation – which is more towards Karaka Road and the derelict packing shed next door than the subject site. Other properties nearby, including those at 19, 20 and 30 Bycroft Road, would still be screened by other vegetation – both shelterbelts and ample amenity planting – between them and the NOR site.

In relation to 5 Whangapouri Road, it appears that the Navigation Homes demonstration dwelling currently on site is a commercial operation. It sits close to, and parallel with, the likely location of Counties Energy's main substation building and transformers. However, 1.8-2.0m high, timber batten fencing has been extended both sides of the driveway to effectively screen most of that property from Whangapouri Road and the Counties Energy site across it. Visitors to the show-home and future occupants using the first level of that dwelling would remain exposed to the proposed substation, but typically not those at and near natural ground level.

Moreover, planting within that property could be employed to augment this existing screening, while the mitigation planting proposed down the western (Whangapouri Road) side of the substation would further assist in this regard. During the period that 5 Whangapouri Road continues to be employed in its current role, such planting has the opportunity to mature and should offer a significant level of buffering in relation to no.5 within 5-10 years. Consequently, I am of the opinion that effects in relation to 5 Whangapouri Road would still be of a moderate order in the short to medium term (out to approximately 10 years) and of a low-moderate order, at most, beyond - taking into account the fencing already undertaken and my recommendations in relation to the proposed conditions of consent.

On the other hand, as indicated in my first Supplementary Report, I retain concerns about the proposed substation's potential effects on 14 Whangapouri Road. That property is only partially separated and screened from the application site by an existing pittosporum hedgerow, with the mature part of that hedgerow only extends along part of the boundary shared with the NOR site. This potentially leaves the eastern half of that property fully exposed to the substation, its electrical yard and transformers, while the rest of the property would be exposed to the more elevated components of the yard and its bus without further screening. Moreover, I retain my previously expressed concerns about the limited duration and height of the pittosporum hedgerow, which is problematic in terms of creating an effective and enduring buffer between both properties. In my opinion, this situation could result in the proposed substation having a high level of effect in relation to 14 Whangapouri Road, and its occupants, without certainty about the height and depth of additional planting along that boundary.

Consequently, it is my view, this frontage should be treated in a similar manner to both Karaka and Whangapouri Roads to avoid such adverse effects. In particular, tall mitigation planting is required along the full length of that shared boundary, although flax and other, lower tier planting is not, in my opinion, required.

Recommendations

In light of the situation described above, I therefore consider that the revised, December 2021 Conditions received from Counties Energy (**Appendix A**), which address the colour (Condition 16), height (Condition 16A) and setback of buildings and other structures within the NOR site (Condition 16B), are critical. Just as important, though, are revised Conditions 3(e) and 15, which address the proposed planting around the substation – in more detail – and its maintenance. I am satisfied that the second of these conditions is adequate, but consider that revised Condition 3(e) needs additional wording to be effective.

For the most part, these concerns relate to Align’s rather rudimentary ‘Indicative Planting Plan’ (part of the revised *Landscape and Visual Assessment* Figure 13, p.18), insofar as:

- It shows native hedging along the Whangapouri Road boundary and ‘small trees’ abutting 14 Whangapouri Road. This is not consistent with Align’s photomontages in its revised LVIA, which clearly show titokis along the edge of Whangapouri Road (Figures 18, 19, 21, 26, 27, 29, 30), nor would it address my concerns in relation to 14 Whangapouri Road).
- It relies on a single line of slow-growing titokis to provide the level of screening indicated in those same Align’s photomontages, which will remain too permeable and susceptible to the failure of individual trees.
- It would be affected by Chris Freke’s 5m height control triangle near the intersection of Whangapouri Road with Karaka Road – potentially taking a significant ‘bite’ out of the screening near that intersection.

Yet, Align’s Figure 13, combined with the Indicative Plant Schedule (p.19 of Align’s report), might well influence Council staff reviewing a future planting plan under Condition 3(e) to think that it only needs to be consistent with Figure 13 to manage the substation’s effects. Furthermore, planting aligned with Figure 13 might well not achieve the level of screening, buffering and general mitigation indicated by Align, or that I consider to be necessary for effective management of the effects generated by the proposed substation.

Consequently, it is my opinion that Counties Energy should be requested to provide a revised “Indicative Planting Plan” which addresses the following:

- Provides for a screen of tall planting (4-5m within 10 years and 8m thereafter) at least two rows deep, that lines the entire boundary shared with 14 Whangapouri Road. Such planting does not have to comprise native species, but must be evergreen.
- Similar planting should line the site’s western (Whangapouri Road) and southern (Karaka Road) boundaries, again incorporating at least two rows of tall planting.
- The depth and height of planting indicated above should be retained near the intersection of Karaka Road with Whangapouri Road, irrespective of Chris Freke’s road sightline. This may require pushing the mitigation planting proposed by Align back to the edge of the sightline indicated by Mr Freke.

In my opinion, there should also be consequential amendments to revised Condition 3(e), which require review of a planting plan by Auckland Council. This is to ensure that the implemented planting provides the levels of screening indicated by Align’s photosimulations, and that such screening is both ‘in depth’ and physically robust. **Appendix A** contains my suggestions in this regard.

Assuming that the 'Revised Indicative Planting Plan' and revised Condition 3(e) address the matters outlined above, together with other matters covered by Conditions 6-8, it is my opinion that the amenity and landscape effects generated by the substation proposal would be acceptable from a landscape / amenity standpoint.



Stephen Brown

BTP, Dip LA, Fellow NZILA



Appendix A: Relevant Proposed Conditions

The following conditions are as proposed by Counties Energy as of the 5th of December 2021. My proposed amendments / additions to Condition 3(e) are both italicised and bolded.

Outline Plan(s)

3. Prior to commencement of construction, the requiring authority must submit an Outline Plan to the territorial authority in accordance with section 176A of the RMA to allow the territorial authority to request changes before construction commences. The Outline Plan will include:
 - (e) A detailed Landscape Plan generally in accordance with the landscape concept plan set out in the LVIA prepared by Align Ltd shall be prepared by a suitably qualified person ***and submitted in conjunction with the Outline Plan of Works to Auckland Council Resource Consents department for approval. That plan shall include details about the type of species to be employed, their spacing, their size at the time of planting, and shall be accompanied by a maintenance programme. Such planting shall include taller native species in at least two rows along the boundaries with Karaka Road, Whangapouri Road and the private property at 14 Whangapouri Road, and shall ensure the level of screening indicated in Align's LVIA report simulations for 0-5 years and 5-10 years.***
5. Counties Energy shall consult with Ngati Tamaoho during the detailed design and subsequent construction processes prior to undertaking any work pursuant to this designation to ensure that the proposed design addresses their suggestions about switch room colour and finish.
6. The outcome of such consultation shall be provided to the Council as part of any Outline Plan of Works required by section 176A of the Resource Management Act 1991.

Consultation with Adjoining Owners

- 6A. Counties Energy shall consult with the owners of 5 & 14 Whangapouri Road during the detailed design process to ensure that their suggestions and preferences are taken into account when preparing the detailed Landscaping Plan required by Condition 3(e).

Landscaping and visual

- 14a. No landscaping, planting or other objects exceeding 80cm in height shall be located within a right angled triangular area with sides of 5m length located on the southwestern corner of the site as measured from the WKNZTA designation existing on 31 March 2022.
15. All landscaping and planting shall be maintained in good condition for the term of the designation, and any plantings that clearly fail to thrive in the first three years after establishment or which fail to mature thereafter shall be replaced no later than the next planting season.
16. The substation switchroom is required to have exterior cladding and colours that are recessive, such as grey or earthy tones, so that it modulates its form and surfaces. The purpose of this condition is to ensure that the substation building does not appear excessively mono-textural and/or monolithic.

Maximum Height of Structures

- 16A. The maximum height of poles (excluding insulators) and support structures within the designated area shall be 17m, and all other buildings must not exceed the maximum 15m height limit for buildings in rural zones.

Setbacks

- 16B. Structures must not be located within 10m of the Whangapouri Road boundary.

MEMO TO: Katrina David, Senior Policy Planner

FROM: Bin Qiu

DATE: 10/03/2022

SUBJECT: Counties Energy Notice of Requirement for A Designation - Substation at 8 Whangapouri Road

Comments on Electric Magnetic Fields and Transformer Oils

Dear Katrina

The proposed substation is comprised of the following components:

a switch room building,
12-15m high gantries for 110kv lines,
3 110 kv transformers and
8m-10m high bushar and other equipment structures.

In this memo I cover the matters of electronic magnetic fields emissions and the transformer oil – hazardous substances.

Electric magnetic field (EMF)

The power lines and associated equipment have potential to produce EMFs, as the frequency of the electricity current is transmitted in 50 Hz, the EMF may be called extra low frequency EMF (ELF EMF).

The control provisions under the AUP for such activity is described in its *Rule E26 Infrastructure*. The proposed substation and high voltage electricity lines are permitted under the rule as listed A17, A24 in the Activity Table E26.2.3.1. These activities must comply with the relevant standards of E26.2.5 (6) *Electricity transmission and distribution (Electric and magnetic fields)* which specifies

“network utilities that emit electric and magnetic field emissions must comply with the International Commission on Non-ionising Radiation Protection Guidelines for limiting exposure to time varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 2010, 99(6); 818- 836) and recommendations from the World Health Organisation Monograph Environmental Health Criteria (No 238, June 2007).”

At this stage, no technical information or EMF report has been provided to assess the EMF emission from the proposed substation. The applicant has not applied for any infringement of the standard of E26.2.5 (6), instead, have offered a condition in the Designation requiring compliance with this international guidelines.

It is noted that two submissions have been received and both raise the issue of potential effect of the EMF from the substation.

New Zealand does not produce its own EMF exposure guidelines. The Ministry of Health (MoH) recommends the use of guidelines published by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), which is adopted in the AUP E26.

The Ministry of Health has produced a booklet of *Electric and Magnetic Fields and Your Health 2013 edition*. This information pack provides explanation of the EMF and ELF EMF, an overview of the potential health effects of ELF EMF, and introduction of the ICNIRP guidelines.

The potential health effect of exposing to the EMF listed in this booklet includes

- The principal hazard to be avoided with electrical equipment is fatal electric shock from direct contact with conductors.
- sensitive individuals might feel minute vibrations of skin, hair or clothing. Some people may experience small shocks when touching large ungrounded objects (eg, a large bus) in these fields. These effects are harmless but can be irritating, especially if experienced persistently.
- would be perceived visually as faint flickering lights and disappear with no lasting effect as field levels reduce.
- It states:
While acknowledging the results of studies which found a weak association between ELF magnetic field exposures and the risk of childhood leukemia, ICNIRP considered that there is no compelling evidence of a causal relationship, and referred to the risk management advice contained in the 2007 WHO review (which supported use of the ICNIRP guidelines).
- The ICNIRP guidelines set a basic restriction on the internal electric fields induced in the body by external ELF fields. As internal electric fields are difficult to measure in the body, the guidelines also prescribe reference levels in terms of the more easily measured external field strengths. Compliance with the reference levels ensures compliance with the basic restrictions, and in most applications the reference levels can effectively be regarded as ‘exposure limits’ (although this term is not used as such). If exposures exceed the reference levels, this does not necessarily mean that the basic restriction is also exceeded.
- The exposure limits are copied below:

Table 1: Basic restrictions and reference levels for occupational and public exposures to 50 Hz ELF electric and magnetic fields

	Occupational exposures	General public exposures
Basic restrictions:		
CNS tissues of head	0.1 V/m	0.02 V/m
All tissues of head and body	0.8 V/m	0.4 V/m
Reference levels:		
Electric fields	10 kV/m	5 kV/m
Magnetic fields	1000 μ T (10,000 mG)	200 μ T (2,000 mG)
Contact currents	1 mA	0.5 mA

Note: All values are rms (root-mean-square, a kind of average)

Notes:

kV/m or V/m – measurement unit for Electric field

μT /T, microtesla or tesla, and milligauss (mG) - measurement units for magnetic field (1 tesla = 1,000,000 microtesla, $1 \mu\text{T} = 10 \text{ mG}$).

The MoH information pack has listed example EMF levels from various sources, including the emissions related to the high voltage lines (220kV and 400 kV) and substations:

High voltage transmission lines:

- **Directly beneath line:**
Electric fields: 0.3–3 kV/m
Magnetic fields: 0.5–5 μT (5–50 mG)
- 40 metres from line:
Electric fields: 0.01–0.1 kV/m
Magnetic fields: 0.1–0.7 μT (1–10 mG)

Substations

- Electric fields: generally less than 0.1 kV/m except near where overhead supply lines enter or leave the station.
- Magnetic fields: generally decrease to around 0.1 μT (1 mG) within 5 metres of equipment except near where supply lines enter or leave the station.
- Near switchboard
Electric fields:
300 mm away: 0.02–0.1 kV/m
1–2 metres away: 0.01–0.03 kV/m
Magnetic fields:
300 mm away: 1–3 μT (10–30 mG)
1–2 metres away: 0.1 μT (1 mG)

For comparison, the EMF levels inside a house or office: Electric fields: 0.003–0.03 kV/m, Magnetic fields: 0.05–0.15 μT (0.5–1.5 mG); 1m from appliances: 0.05–0.3 μT (0.5–3 mG);

As the submitters and general public are located away from the substation, the potential EMF exposure levels will be below the example levels listed in the booklet and therefore will be well below the guidelines exposure limits for general public.

So the proposed condition 17 Electric Magnetic Fields (EMF) in the designation is considered appropriate. But a monitoring component should be included in this condition so to ensure the substation EMF is compliant when is in operation at the closest neighbours and general public.

I would also like to point out that the AUP Rule E26.2.5.2(7) – Radio Frequency Fields (RF fields) is not applicable in this application as it refers to radio frequency fields emitted from mainly telecommunication facility with frequencies ranged from 3 kHz to 300 GHz, well above the 50 Hz of electricity frequency.

Hazardous substances – transformer oils

The transformer oil may be hazardous substances. AUP provides provisions for management of hazardous substances under E31 Hazardous Facilities. Hazardous substances are also controlled under other regulations

such as Hazardous Substances and new Organism Act 1996 and Health and Safety In work Act, and their relevant regulations.

The function of local authorities to control hazardous substances has been removed from Sections 30 and 31 of Resource Management Act 1991 in 2017 by Resource Legislation Amendments Act 2017.

However assessment will still be carried out under E31 until a change to the Unitary Plan to remove these provisions is done, but it has not occurred to date.

The detail of the transformer oils contained in the proposed power transformers is also yet to know. So my comments are based on the general knowledge of the typical transformer oils.

There are three basic types of transformer oil available: mineral oil (mostly naphthenic), silicone, and bio-oil with mineral oil based transformer oils dominating the usage.

The transform oils may pose low risk to human health and the environment - ecosystem, whilst it may not be flammable as their flash points are typically higher than 23-93 degrees Celsius, the classification criteria for the flammable liquids set out in in the Hazardous Substances (Classification) Notice 2017. So the fire risk is not discussed further, below is comments on the transformer oil's risk to people and environment.

As the transformer oil is concealed in the transformers which is located in a locked and fully enclosed compound, the general public is unlikely to access to and get exposed to or contacted with the transformer oils, so the risk to human health for public is negligible. The risk to the site workers will be controlled under the Health and Safety at Work Act 2015 and its relevant regulations and is beyond the scope of the E31.

The potential risk to the ecosystem may exist if the oil is leaked and discharged into the environment in a significant quantity for prolong period of time.

This risk can be mitigated by the appropriately siting and installing of the transformers, good management of the hazardous substances, regularly maintaining of the site and its discharge systems.

The following is noted from the proposal,

- the transformers will be located within a bunded area which has capacity to contain the total volume of oil in the transformer plus an allowance for rainwater.
- The bunded area will contain an isolation valve so that should an oil spill occur from the transformer this will be contained;
- The bunded area is connected to an oil separator, so the leaked oil in the water can be removed before discharged into the environment.
- The transformers are protected from overloading and faults by protection equipment (i.e. circuit breakers) fitted with monitoring devices which will alert Counties Energy of the operating conditions that would lead to a fire or oil spill.
- Preparation and implementation of good maintenance practice and the Hazardous Substances Environmental Management Plan

So the potential environmental risk from the transformer oils can be mitigated to a acceptable level.

The proposed conditions 21, 22 and 27 are appropriate.

Conclusions

I have reviewed the NoR application for the substation in relation to the potential emission of electric and magnetic fields and the hazardous substances, although the technical details or specific transformer oils are not known at this stage, it is considered the proposed conditions for EMF and hazardous substances are appropriate, with following recommendation for the condition 17. I have also reviewed the public submissions in relation to the concerns of the potential EMF, my review finds that the public and the submitters are unlikely to be exposed to the substation EMF in levels exceeding the international standards International Commission on Non-ionising Radiation Protection Guidelines for limiting exposure to time varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 2010,), the compliance can be confirmed and maintained by condition 17.

The additional component of condition 17 (or a new condition) is that

Within 6 months of the proposed substation or any subsequent change to electricity supply, the high voltage power lines, transformers and switchboards described in the NoR application commencing operation the requiring authority shall engage an electric engineer to confirm compliance with the International Commission on Non-ionising Radiation Protection Guidelines for limiting exposure to time varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 2010) as evidenced by actual measurement of electric magnetic fields at the relevant locations. The engineer's report shall be submitted to the council for certification. In the event of any non compliance, the report shall demonstrate how and when compliance will be achieved.

Please do not hesitate to contact me directly if you have any further queries.

Yours sincerely,

Bin Qiu

Noise Specialist

MEMO

TO: Katrina David - Senior Policy Planner
FROM: Andrew Gordon – Specialist
DATE: 11 March 2022
SUBJECT: 8 Whangapouri Road, Karaka NOR - noise review

Introduction

I have reviewed the application documents including the section 92 response dated 16/11/2021 prepared by Align in regard to noise effects for a notice of requirement (**NoR**) application by Counties Energy Limited for a new designation. The designation is for an electricity substation at 8 Whangapouri Road, Karaka (Lot 2 DP 473807).

I visited the site and surrounds around the 29 October 2021 (viewed from the road).

Proposal

- To designate part of the site at 8 Whangapouri Road for the purpose of ‘Electricity Substation’ (approximately 6,800m² of the existing 1.0724 ha property).
- The site will be subdivided to allow for the substation and to retain the residential property on the eastern side of the site.
- Approximately 2,000m³ of earthworks over an area of approximately 5,000m² are required, predominantly to form a level platform for the substation yard.
- Works include construction of concrete foundation pads and steel stands for the outdoor 110kV equipment and transformers, 12-15m high gantries for the incoming 110kV lines, and a 22kV concrete switch room building.
- Civil works include stormwater drainage, wastewater drainage and driveway construction.
- The existing single access way from Whangapouri Road will be removed and three new crossings off Whangapouri Road will be installed.

AUP (OP) E25 Noise and vibration and E26 Infrastructure

The application site and adjacent sites are zoned Rural - Mixed Rural and subject to permitted noise standards in E25.6.3 (1) reproduced below: -

E25.6.3. Noise levels in rural and future urban zones

(1) The noise (rating) level from any activity in the Rural – Mixed Rural Zone, Rural – Rural Production Zone, Rural – Rural Coastal Zone or the Future Urban Zone measured within the notional boundary on any site in any rural zone must not exceed the limits in Table E25.6.3.1 Noise levels in the Rural – Mixed Rural Zone, Rural – Rural Production Zone, Rural – Rural Coastal Zone or the Future Urban Zone below:

Table E25.6.3.1 Noise levels in the Rural – Mixed Rural Zone, Rural – Rural Production Zone, Rural – Rural Coastal Zone or the Future Urban Zone

Time	Noise level
Monday to Saturday 7am-10pm	55dB L _{Aeq}
Sunday 9am-6pm	
All other times	45dB L _{Aeq} 75dB L _{Amax}

E26 Infrastructure specifically requires substations to comply with the noise standards reproduced below (the same decibel limits as specified in E25.6.3): -

E26.2.5.3.

Substations and electricity storage facilities

(2) Noise from substations must not exceed the following noise limits when measured within the boundary of a residential zone site or within the notional boundary of a rural zone site:

- (a) 55 dB L_{Aeq} between Monday to Saturday 7am to 10pm and Sundays 9am to 6pm and
- (b) 45 dB L_{Aeq} /75 dB L_{Amax} for all other times

Compliance is assessed at the notional boundary as defined in AUP (OP) J1: -

Notional boundary

A line 20m from any side of a building containing an activity sensitive to noise, or the legal boundary where this is closer to the building.

Activities sensitive to noise

Any dwelling, visitor accommodation, boarding house, marae, papakāinga, integrated residential development, retirement village, supported residential care, care centres, lecture theatres in tertiary education facilities, classrooms in education facilities and healthcare facilities with an overnight stay facility.

My discussion will refer to compliance with E26 given the NoR application for a designation.

In regard to the construction stage, permitted noise standards are set out in E25.6.27 and permitted vibration standards are set out in E25.6.30 (1). However, as the application is for a designation these standards would not apply. It is noted the noise standards specified in E25.6.27 are the same as noise standards specified in NZS 6803:1999 (referenced in the proposed conditions).

In regard to construction vibration, there is no New Zealand Standard for construction vibration. The limits specified in AUP (OP) E25.6.30 (1) can be referenced for guidance purposes and used to inform appropriate mitigation measures to ensure vibration levels are reasonable. This approach aligns with section 16 of the RMA: -

16 Duty to avoid unreasonable noise

(1) Every occupier of land (including any premises and any coastal marine area), and every person carrying out an activity in, on, or under a water body or the coastal marine area, shall adopt the best practicable option to ensure that the emission of noise from that land or water does not exceed a reasonable level

(Note: the definition of noise includes vibration)

Discussion

Counties Energy have not provided an acoustic assessment to support the application. It is noted a detailed assessment will be undertaken when the design of the substation is determined through the outline plan of works. The AEE provides a baseline assessment based on a transformer sound power level of 67.5 L_{WA} . Based on my experience this sound power level appears representative.

The design and layout of the substation, although yet to be finalised, indicates the transformers will be located approximately 21m from the nearest notional boundary at 14 Whangapouri Road, and approximately 15m from the future notional boundary for the existing dwelling located within the application site (proposed Lot 1). It is noted the owners/occupiers of the application site have given written approval and therefore effects can be disregarded.

Given the setback distances to the nearest existing dwellings, the applicants baseline assessment demonstrates that transformer noise can be designed to comply with permitted standards without any practical difficulty.

Further, the AEE states: -

“The baseline Noise assessment provided indicates AUP 45dB noise limit will be met at the boundaries. A full noise will be prepared the detailed design stage and design can further mitigate the noise output with positioning the transformers further away from the boundaries, or the use of acoustic walls between the transformer on the eastern side, between it and the existing dwelling on the site.”

Given the above sound power level and “normal” distance attenuation, an indicative noise level will be below the 45 dB L_{Aeq} limit when measured within the nearest notional boundary at 14 Whangapouri Road. Noise received within 5 Whangapouri Road will be reduced further due to the increased setback distance.

Potential noise issues arise when transformers have fans to provide forced air circulation. Further, it is generally recognised that transformer sound is tonal in character and so “special audible characteristics” are relevant when assessing noise effects. Clause 6.3 of NZS 6802:2008 requires that any predicted noise level shall be increased by 5 dBA for comparison with the relevant noise standard.

The switch room building may include outdoor condenser units for air conditioning which would create noise similar to domestic external heat pump cabinets. Although not specified in the AEE, given the proposed location of the new switch room building relative to the assessment locations below, I expect noise can be mitigated, if required, to enable compliance without any practical difficulties.

I confirm compliance with the above standards is assessed within the notional boundary (or legal boundary if closer than 20m from a dwelling) and the future legal boundary for proposed Lot 1 as indicated below: -



I generally agree that the applicants baseline assessment demonstrates substation noise can be controlled, in principle, to comply with permitted noise standards in E26.

It is noted specific acoustic mitigation measures (e.g. acoustic wall) will most likely be required as part of the final site layout to enable compliance with E26. I suggest permitted noise standards are included as a condition (refer Condition 11A).

Substations do not involve any high vibration creating equipment. Based on my experience, operational vibration from the proposed substation will be imperceptible to neighbours.

In regard to the construction stage, given the scale and nature of the works and setback distances to neighbouring dwellings, I expect general compliance with noise standards in NZS 6803:1999, but management measures and best practice mitigation measures may be required when the noisiest works/activities (e.g. earthworks) are carried out close to the site boundary. In this regard I suggest a CNVMP is prepared and implemented to ensure permitted noise limits are met and vibration levels are reasonable (refer Conditions 9, 9A, 10 and 11).

Submissions

Two submissions were received within the required time frame. Both submitters oppose the application.

1. Sublime Property Management Ltd: This submission relates to the adjacent properties at 5 and 21A Whangapouri Road, however, does not specifically mention noise effects. During my site visit the concrete pad for the dwelling at 5 Whangapouri Rd has recently been constructed, as shown below: -



As mentioned above, noise from the proposed substation is expected to readily comply with the permitted noise standards set out E26. Further, it is likely that operational noise from the proposed substation will not be noticeable at the new dwelling.

The submitters property at 21A Whangapouri Road contains a dwelling located approximately 440m away from the application site boundary. Substation noise would have no effect on this dwelling.

The above noise standards are designed to minimise annoyance effects and to ensure a good level of amenity.

It is noted the application site is located on a busy road (i.e. State Highway 22) so ambient and background noise levels will be elevated compared to a remote rural road with less passing traffic.

Given the low noise levels predicted and the absence of any loud impact/impulsive type noise associated with day to day operations, it is reasonable to assume noise effects on animals (e.g. horses, cattle, sheep) will be none or negligible.

2. The Light of Mercy Charitable Trust: This submission relates to the adjoining property to the north at 14 Whangapouri Road. A submission has been prepared by the submitter's agent, Mt Hobson Group, in a letter dated 24 January 2022. I make the following comments: -

- I agree the submitters site contains an activity sensitive to noise (i.e. residence) which should be treated as being occupied, the same as any dwelling.
- Lack of maintenance and/or malfunctioning equipment could potentially give rise to abnormal (i.e. higher and/or more noticeable) noise emissions. Adherence to a routine inspection and maintenance programme would ensure this potential scenario is avoided.
- If noise levels were considered by the submitter to be unreasonable, a complaint can be made to the Council for investigation. Based on my experience, the investigation would likely involve contacting a responsible person to provide a report to Council requesting; an assessment of noise levels, identification of compliance/non-compliance, and if non-compliance, identification of remedial actions taken.
- As mentioned above, noise from the proposed substation is expected to comply with the permitted noise standards set out E26. It is likely operational noise from the proposed substation would not be noticeable at the existing dwelling.

Conclusions

1. In my opinion the site layout and activities can be designed to enable compliance with permitted noise standards in E26 without any practical constraints.
2. Construction noise and vibration effects will be managed via a CNMP to ensure temporary construction effects are reasonable, and noise is compliant with NZS 6803:1999 Acoustics – Construction Noise.
3. Overall, noise effects on submitters will be reasonable.
4. Adverse noise effects on rural amenity will be avoided.
5. Effects will be adequately managed by the imposition of conditions.

Recommended Conditions

I support the proposed conditions attached to the planners' section 169 notification report.

As background, I make the following comments: -

- a) Condition 9: prescribes construction noise limits that must be met (limits in NZS 6803:1999 are the same as specified in AUP (OP) E25.6.27). Compliance will ensure effects are reasonable.
- b) Condition 9A: requires a CNVMP to be prepared prior to works commencing to demonstrate compliance with NZS 6803:1999. In regard to vibration, E25.6.30 (1) can be used for guidance to inform appropriate mitigation (if required) to ensure vibration is reasonable during construction works.
- c) Condition 10: If construction works are required outside standard hours (i.e. 7.30am to 6pm, Monday to Saturday), a CNVMP would be prepared to demonstrate how the lower long term duration noise limits would be met (e.g. after 8pm the limit reduces from 65 dB to 45 dB).
- d) There is no New Zealand Standard for construction vibration and therefore specific limits are not addressed in a condition.

- e) Condition 11: Excludes emergency works from having to comply with noise limits in Condition 9, but best practice measures will be adopted to minimise adverse effects where it is practicable to do so.
- f) Condition 11A: prescribes operational noise limits that must be met (i.e. AUP (OP) E26).
- g) In my view there is a high degree of certainty that operational noise limits in E26 can be achieved. Therefore, a detailed acoustic assessment is not proposed as a condition.

Andrew Gordon
Specialist

Specialist input Traffic/transport planning

To	Katrina David Auckland Council
From	Chris Freke – Auckland Transport
Date	31 March 2022
Notice of requirement	<p>Karaka substation</p> <p>This is for a new substation at 8 Whangapouri Road, Karaka. The designation will be for electricity supply purposes. Counties Energy requires land for a new 110/22kV substation to meet the forecast electrical demand growth for the Pukekohe North area, including residential developments in Paerata Rise, Wesley, and Karaka North.</p> <p>The site is in the Mixed Rural Zone and is on the corner of Whangapouri Road and SH22</p> <p>Counties Energy (trading as Counties Power) have a sale and purchase agreement for the part of the site that the designation will apply. It will require subdivision of the site into a smaller rural residential site and the designation site, and relocation of a minor dwelling. This will be done through a separate consent process.</p>
Site address	8 Whangapouri Road, Karaka (Lot 2 DP 473807)
Requiring authority	Counties Energy (formally Counties Power)
Technical input provided	Transport/traffic

Traffic context.

The proposed site is on the corner of the following roads

- I. Whangapouri Road a low volume local rural road carrying around 500 vehicles per weekday
- II. Karaka Road(State Highway 22) is a high volume state highway which carries 22,000 vehicles per day¹

The two roads intersect at a crossroad with Bycroft road on the opposite side of SH22. There is a painted pocket provided for vehicles wishing to turn right from SH22 into either side road. There are stop controls on both intersection approaches to SH22 and the intersection has lighting. There has only been one non injury accident at the intersection during the last 5 years. This was a night-time accident involving an alcohol impaired driver on SH22 who lost control and ended up in Whangapouri Road.

Waka Kotahi New Zealand Transport Agency(WKNZTA) manage SH22 and have a 5 metre wide designation for road widening along the SH22 frontage of the site. The implications of this are that any conditions set in relation to the front boundary need to take this into account and effectively treat the designation boundary as the front boundary as opposed to the current legal boundary. WKNZTA also advised they did not consider themselves an affected party based on the nature of the proposed activity and information supplied to them.

It is understood from discussion with WKNZTA representatives that there are plans for safety improvements along this section of SH22. These will likely entail installation of a wire median barrier along the route coupled with opportunities to U turn at several points(as movements to some properties and side roads with access to SH22 will be restricted to left in and out). However

¹ WKNZTA traffic counts as measured just west of Oira Road


the proposed treatment at Whangapouri Road is unknown. It is understood that the work has been delayed, partly as a result of the need to rescope it due some impending land use changes along the route(e.g. Drury Plan changes).

The next sections address

- i. Comment on transport matters raised by submitters.
- ii. An assessment of outstanding issues from earlier advice outlined within the notification report dated 6 December.
- iii. Recommended conditions of designation.

i) Comment on transport matters raised by submitters.

Sub #	Theme	Matters raised in submissions – summarised.	Comments
1a	Road safety - general	<p>Submitter #1 (14 Whangapouri Road)</p> <p>A dangerous intersection. Previous upgrades planned by Waka Kotahi but cancelled.</p> <p>Submitter concerned that substation might increase traffic volume.</p>	<p>The amount of traffic associated with an un maned substation is likely to be very low, being that associated with maintenance and repair. and unlikely to adversely affect road safety.</p> <p>There is a potential risk associated with construction traffic, which may also have more heavy vehicles. There are currently around 50 heavy vehicle trips per day currently on Whangapouri Road and any risk could be managed by a condition requiring a construction management plan which assesses the amount and timing of construction traffic and the route they take to and from the site .</p> <p>There is the ability to restrict hours of movement and turning movements from SH22 if required . In addition any trips involving over dimension vehicles(such may be required to transport large components to the site) require a separate overdimension permit pursuant to land transport Rules in their own right. These are issued by WKNZTA.</p>
1b	Road safety - general	<p>Submitter #2 (5 Whangapouri Road)</p> <p>General statements about traffic safety of intersection. Concerned about risk of traffic accidents if substation built on corner.</p>	<p>The operation or presence of the proposed substation is unlikely to present any road safety issues particularly if supported by appropriate conditions.</p>

Sub #	Theme	Matters raised in submissions – summarised.	Comments
1c	Road safety – planting on corner/landscape plan	<p>Submitter #1 (14 Whangapouri Road). Concerned about existing safety at intersection and states there are inadequate sightlines when merging onto Karaka Road.</p> <p>Requests the landscape plan be amended: 3.1.1. The landscape hedging proposed along the Karaka Road frontage must be setback further to allow space for any future road widening activities and to allow adequate sightlines for the vehicle</p>  <p><small>Figure 7: Tapering requested by the submitter to the applicant's boundary as similar to the opposite intersection.</small></p>	<p>Sightlines should be adequate in the short term if the 5 metre designated strip along the frontage is maintained as grass. There is the potential for the proposed landscaping to affect future sightlines in the event that the designated area is formed as road.</p> <p>The presence of a stop sign which ,if observed, should result in reasonable visibility to the east for vehicles waiting to turn. However a splay would improve visibility of approaching vehicles for vehicles right turning into Whangapouri Road.</p> <p>It is also possible ,in the event that WKNZTA safety improvements restrict access from Whangapouri Road to left in left out movements that it would not be an issue. However there is no certainty around this measure.</p> <p>It is agreed that vesting as road of a splay ,similar to that on Bycroft Road could improve safety at the intersection. Splays can also make it easier to provide pedestrian facilities from side roads. Whilst this is a rural environment the current future urban boundary is some 800 metres to the east.</p> <p>However it is not considered that the effects from the proposed substation warrant this being imposed at this time. Conditions to limit planting or infrastructure within this area would lessen issues around it being acquired at a future date if required as well as addressing potential sight line issues in the event that SH22 is widened.</p> <p>Some of the safety issues raised around vehicles from SH22 entering the substation or the substation could potentially be addressed by way of a front yard setback being applied to the substation. The term “substation” as opposed to “building” would address any concerns that the later term does not capture all the elements associated with a substation.[refer condition comments].</p>

Sub #	Theme	Matters raised in submissions – summarised.	Comments
1d	Road safety - lighting	<p>Submitter #1 (14 Whangapouri Road)</p> <p>Concerned about lack of info and effect of lighting on road safety – notes that condition requires lighting to be positioned/aimed to avoid adverse effects on neighbours etc, but what about SH22?</p>	<p>The AUP(OIP) has provisions(E24) relating to private property lighting. This includes a requirement that outdoor artificial lighting must not exceed threshold increment limit stated in Table E24.6.1.4.which applies to roads. If these are exceeded there is an assessment criterion around the “ the extent to which any artificial lighting will adversely affect traffic safety”.</p> <p>This issue could be addressed by condition requiring compliance with the standard and that any OPW provide information demonstrating this..</p>
2	Construction traffic – effects and management	<p>Submitter #1 (14 Whangapouri Road)</p> <p>general concern about increase in traffic related to this.</p>	<p>As mentioned above the traffic from the substation, once operational, is not considered to be such as to create any safety issues. There is the opportunity to address any affects from construction traffic by way of condition. Similar conditions have been imposed on a number of other substation designations within Auckland including</p> <p>Designation 3010 (CE Barber Road substation)</p> <p>Designation 3008 (CE Glenbrook substation).</p> <p>In the absence of such a plan traffic is entitled to access the construction site without any conditions , providing that they obey the rules of the road and obtain any approvals required for over dimension vehicles..</p>

ii) Other outstanding issues

It is noted that in addition to the above matters raised by submitters ,initial transport advice was forwarded to Counties Power on a number of potential issues and conditions. These included

- i. a condition to prevent any direct access to the site, except for maintenance purposes , from Karaka Road. Whilst the Karaka Road is currently designated a State Highway and WKNZTA , this may not always be the case as work is underway on whether an alternative state highway route to Pukekohe is provided. If this did come to pass then the current SH22 route would likely be transferred to Auckland Transport.
- ii. Conditions in relation to the location of vehicle crossing locations on Whangapouri Road.

- iii. A condition to provide information at the time of outline plan of works to identify and show the extent of any stormwater discharges to the road reserve. This was so as to identify whether or not a separate consent for such discharge would be required.

Whilst the above could potentially be left to be determined at outline plan of works, it is considered that providing them as conditions would provide more certainty as to what is required. This also recognises that, unless they are conditions, a requiring authority is not obliged to accept any recommendations on its outline plans of work. In addition none are considered such they would unduly affect the ability of Counties Power to establish and operate the planned substation.

In addition to the above advice was sought on the lines that will connect to the substation which are not part of the NoR. Utilities have the right to install their lines within legal roads providing they are within set parameters as outlined within Activity table E26.2.3. contained within the infrastructure chapter of the AUP(OiP). There are guidelines however as to how close they can be to a carriageway and moving traffic. In addition any new lines within the area of state highway designated by WKNZTA would require their consent as requiring authority.

iii) Conclusions and recommended conditions of consent.

In conclusion it is considered that ,subject to appropriate conditions of designation being imposed to address potential transport effects, that there are no transport related reasons for recommending that the proposed substation NOR be declined. Recommended conditions , which use the 5 December section 92 version follow along with a brief commentary supporting any suggested changes. The wording and drafting may need to be changed to make them consistent with the final conditions which also address non transport related matters.

Base Working draft conditions version 2, dated 5 December 2021

- Red ~~strikethrough~~/underline from Counties Energy revised conditions dated 17 November.
- Yellow highlight proposed amendments proposed by Auckland Transport 26 November 2021
- Green highlight additional condition proposed by Counties Energy 5 December 2021
- Recommended changes to transport related conditions March 2022 with [Comment] Additional clauses given temporary letter suffix and renumbering based on final version will be required.

Proposed Conditions

XXXX Counties Energy Whangapouri Road Substation

Designation Number	XXXX
Requiring Authority	Counties Energy Limited

Location	Whangapouri Road, Karaka
Lapse Date	10 years from date of inclusion in the Auckland Unitary Plan

Purpose

'Electricity supply purposes'

Conditions

General

1. The designation shall lapse 10 years from the date of inclusion in the Auckland Unitary Plan in accordance with section 184(1)(c) of the Resource Management Act 1991 (RMA).
2. Any additional matters requiring regional consents or approvals (such as National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) must be obtained prior to works commencing.

Outline Plan(s)

3. Prior to commencement of construction, the requiring authority must submit an Outline Plan to the territorial authority in accordance with section 176A of the RMA to allow the territorial authority to request changes before construction commences. The Outline Plan will include:
 - a. The height, shape, and bulk of the public work, project, or work; and
 - b. The location on the site of the public work, project, or work; and
 - c. The likely finished contour of the site; and
 - d. The vehicular access crossings, circulation, and the provisions for parking and loading design conforming with the relevant Auckland Transport standards and guidelines contained within the AUP(OiP) and Auckland design manual, based on a boundary defined by the Waka Kotahi NZTA designation boundary existing on 31 March 2022 or the site boundary in the event the designation has been removed; and

[**Comment:** Support. Parking minimums no longer apply but the loading and design related provisions are still applicable. The boundary is the one currently existing one and it is intended this would still apply in the event the designation is transferred to Auckland Transport at some point in time]
 - e. A detailed Landscape Plan generally in accordance with the landscape concept plan set out in the LVIA prepared by Align Ltd prepared by a suitably qualified person. The landscaping proposed; and
 - f. The extent of any stormwater discharges to the road reserve; and

[Comment; support as will confirm any need for additional consents based on increased discharges to the road]

- g. Any other matters to avoid, remedy, or mitigate any adverse effects on the environment including compliance with the following Rules of the Auckland Unitary Plan.
- i. Rule E26.2.5.2(6) – Electricity transmission and distribution (Electric and magnetic fields).
 - ii. Rule E26.2.5.2(7) – Radio Frequency Fields (RF fields).
 - iii. Rule E26.2.5.3(2) – Noise from substations.
 - iv. Rule E24.6.1 – General standards for Lighting.

[Comment; Support as will address any potential safety issues arising from onsite lighting]

Consultation with Waka Kotahi

4. Counties Energy shall liaise with Waka Kotahi during the detailed design and subsequent construction processes prior to undertaking any work pursuant to this designation to ensure that the proposed works are integrated and managed in a manner suitable to both parties.
[Comment; This condition is supported but is not considered to remove the need for a detailed Construction Traffic Management Plan]

Consultation with Ngati Tamaoho

5. Counties Energy shall consult with Ngati Tamaoho during the detailed design and subsequent construction processes prior to undertaking any work pursuant to this designation to ensure that the proposed design addresses their suggestions about switch room colour and finish.
6. The outcome of such consultation shall be provided to the Council as part of any Outline Plan of Works required by section 176A of the Resource Management Act 1991.

Consultation with Adjoining Owners

- 6A. Counties Energy shall consult with the owners of 5 & 14 Whangapouri Road during the detailed design process to ensure that their suggestions and preferences are taken into account when preparing the detailed Landscaping Plan required by Condition 3(e).

Construction Environmental Management Plan (CEMP)

7. A Construction Environmental Plan shall be prepared by a suitably

qualified person and submitted to Auckland Council Resource Consents department for certification at least one month prior to the initial construction commencement date.

8. The purpose of the CEMP is to avoid, remedy or mitigate adverse effects associated with the construction works associated with the Project. The CEMP must contain the following:
 - a. Where access points are to be located and procedures for managing construction vehicle ingress and egress to construction support and storage areas;
 - b. Methods for managing and monitoring dust as a nuisance, including methods for minimising dust emissions, monitoring procedures and contingency procedures in the event of a dust nuisance event;
 - c. Measures to be adopted to keep the construction areas in a tidy condition in terms of disposal / storage of rubbish and storage, unloading construction materials (including equipment). All storage of materials and equipment associated with the construction works must take place within the boundaries of the designation;
 - d. The location of any temporary buildings (including workers' offices and portaloos) and vehicle parking (which should be located in the construction area and not on adjacent streets).
 - e. Information on designated staff parking areas for construction workers; and
 - f. Training requirements for employees, sub-contractor and visitors on construction procedures, environmental management and monitoring;
 - g. Environmental incident and emergency management procedures (excluding spills); and
 - h. An outline of the construction programme of the work, including construction hours of operation, indicating linkages to the other management plans which address the management of adverse effects during construction.
9. All construction and maintenance work shall be designed, managed and conducted to ensure that construction and maintenance noise from the site does not exceed the limits in NZS 6803:1999 Construction Noise at locations set out in section 6.2 of that standard.
10. In accordance with NZS 6803:1999 Construction Noise, construction activities are to occur between 7.30am and 6.00pm Monday to Saturday, with no construction to occur on Sundays or public holidays unless otherwise authorised through the CNVMP.

11. The noise limits set out in Condition 9 above shall not apply to emergency work required to re-establish continuity of supply, work urgently required to prevent loss of life or other personal injury, or commissioning works at the substation site, but all practicable steps shall be undertaken to control noise and to avoid adverse noise effect

Noise

- 11A. Noise from the substation must not exceed the following noise limits when measured within the notional boundary of all adjacent properties:
 - a. 55 dB LAeq between Monday to Saturday 7am to 10pm and Sundays 9am to 6pm and
 - b. 45 dB LAeq/75 dB LAmax for all other times

Advice note: The noise limits set out in this Condition shall not apply to emergency work required to re-establish continuity of supply, work urgently required to prevent loss of life or other personal injury, or commissioning works at the substation site, but all practicable steps shall be undertaken to control noise and to avoid adverse noise effect.

Site access

12. The site must be safe and secure from unauthorised public access at all times during construction and operation.

Accidental Discovery Protocols

13. If any archaeological sites, urupa, traditional sites, taonga (significant artefacts), or koiwi (human remains) are exposed during site works, then the following procedures shall apply:
 - a. Works in the immediate vicinity of the site that has been exposed shall cease;
 - b. The site supervisor shall immediately secure the area in a way that ensures that any remains or artefacts are untouched;
 - c. The site supervisor shall notify representatives of relevant tangata whenua, the Heritage New Zealand Pouhere Taonga, the Auckland Council and, in the case of human remains, the New Zealand Police; and
 - d. The notification in (c) above shall allow such persons being given a reasonable time to record and recover archaeological features discovered before work may recommence on the exposed site.
 - e. Works shall not commence in the immediate vicinity of the

archaeological site until any approval required from the Heritage New Zealand Pouhere Taonga is obtained.

Landscaping and visual

~~14. A detailed Landscape Plan generally in accordance with the landscape concept plan set out in the LVIA prepared by Align Ltd shall be prepared by a suitably qualified person and submitted in conjunction with the Outline Plan of Works to Auckland Council Resource Consents department for approval.~~

15. All landscaping and planting shall be maintained in good condition for the term of the designation, and any plantings that clearly fail to thrive in the first three years after establishment or which fail to mature thereafter shall be replaced no later than the next planting season.

16. The substation switchroom is required to have exterior cladding and colours that are recessive, such as grey or earthy tones, so that it modulates its form and surfaces. The purpose of this condition is to ensure that the substation building does not appear excessively mono-textural and/or monolithic.

Maximum Height of Structures

16A. The maximum height of poles (excluding insulators) and support structures within the designated area shall be 17m, and all other buildings must not exceed the maximum 15m height limit for buildings in rural zones.

Setbacks

16B. Buildings must not be located within 10m of the Whangapouri Road boundary.

[**Comment;** there has been concern raised whether or not the term “building” as defined within the AUP(OIP) captures all the elements of a substation. It may be better to use the term “substation” which is defined as “*Substation: Those parts of works or electrical installations being a building, structure or enclosure incorporating fittings and other ancillary equipment that are used principally for the purpose of the control of the distribution and/or transmission of electricity*”.]

14a] No landscaping, planting or other objects exceeding 80 centimeters in height shall be located within a right angled triangular area with sides of 5 metres length located on the southwestern corner of the site as measured from the WKNZTA designation existing on 31 March 2022.)

[**Comment;** This is to address potential sight line issues in the event that the WKNZTA widening occurs. The drafting is based on current designation. The height is based on fact most drivers view things from 1.1 metres above road level.]

Electric Magnetic Fields (EMF)

17. The operation of the substation shall at all times comply with the International Commission on Non-ionising Radiation Protection

Guidelines (ICNIRP) for limiting exposure to time varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 2010, 99(6); 818-836) and recommendations from the World Health Organisation monograph Environmental Health Criteria (No 238, June 2007).

Electrical Interference

18. ~~The Requiring Authority must make e~~Every reasonable effort must be made to ensure that the substation is operated, managed ~~and or~~ controlled so that there is no electrical interference with television or radio reception at any adjacent property including complying with the requirements of the Radio Communications Regulations 2001, the Ministry of Economic Development's Radio Spectrum Management "Compliance Guide" (November 2004), NZ Standard for Radiofrequency Fields Part 1 (1999) and relevant Gazetted Notices.

Lighting

19. All exterior on-site lighting must be positioned and aimed within the site, away from adjacent properties ~~so as~~ to minimise the level of light spill and glare.

Surface water

20. The Requiring Authority must maintain and regularly clean all stormwater catch pits, channels, grates, pipes and other stormwater collection systems to ensure they operate in an effective manner.

Hazardous Substances Environmental Management Plan (HSEMP)

21. The purpose of the HSEMP is to outline the methodologies and processes that will be adopted to ensure that the risks of storing and using hazardous substances within the subject site will be appropriately managed by the Requiring Authority for the duration of the operation of the electrical substation. The HSEMP shall be submitted to Council prior for approval to operation and contain the following:
 - a. The appropriate hazardous substance methodologies for:
 - Storage;
 - Handling;
 - Transport; and
 - Disposal.
 - b. Provide information to regulatory authorities to demonstrate that the possible risks as a result of storage and use of hazardous substances have been considered and will be appropriately managed by the Requiring Authority;
 - c. Methods to ensure prevention and mitigation of adverse effects

associated with the storage, use, disposal, or transportation of hazardous substances;

- d. Training requirements for employees, sub-contractor and visitors on construction procedures, environmental management and monitoring;
 - e. The document management system for administering the HSEMP, including review and Requiring Authority / constructor / council requirements;
 - f. Environmental incident and emergency management procedures (including spills);
 - g. Environmental complaint management procedures;
 - h. Methods to provide for the safety of the general public.
22. The Requiring Authority must ensure that all transformers containing more than 1000L of oil are banded. Each band must be of sufficient capacity to contain the total volume of oil contained within each transformer plus an allowance for rainwater.

Access to Karaka Road

24a) No motor vehicle access (beyond vehicle access to support efficient maintenance of the substation grounds and buildings) is to be obtained from Karaka Road.

[**Comment:** Required to minimize existing and future impact on operation of Karaka Road]

~~Vehicle Crossing~~

~~23. The vehicle crossing for the sub-station must be designed and formed in accordance with either the GD020A Rural Vehicle Crossing standard set out in Auckland Transport's Code of Practice (ATCOP) or VX0303 Rural Crossing Standards set out in Auckland Transport's Transport Design Manual (TDM), whichever is operative at the time of construction.~~

~~24. Prior to operation of the substation, the berm must be re-instated to Auckland Council's "Code of Practice for Working in the Road" (<https://at.govt.nz/about-us/working-on-the-road>).~~

[**Comment:** Issues addressed by condition 3b]

Construction Traffic Management Plan

25a. A Construction Traffic Management Plan (CTMP) must be prepared by a suitably qualified person and must include any feedback from Auckland Transport and Waka Kotahi NZ Transport Agency and an explanation where any of their recommendations have not been adopted within the plan

[**Comment:** Condition supported as will enable any safety issues associated with construction traffic to be addressed based the numbers, travel times, and routes taken to and from the site]

~~*Advice note: The Requiring Authority will need to submit details on the vehicle crossing for approval by Auckland Transport prior to construction.*~~

Erosion and Sediment Control Management Plan (ESCMP)

25. The Erosion and Sediment Control Management Plan (ESCMP) 10. The purpose of the ESCMP is to describe the methods and practices to be implemented to minimise the effects of sediment generation and yield on the receiving environment associated with the construction phase. The ESCMP shall be prepared in accordance with the council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region Guideline Document 2016/005 (GD05) and any subsequent updates. The requiring authority must undertake construction in accordance with ESCMP and must contain the following;
- a. Specific erosion and sediment control works for each stage (location, dimensions, capacity) in accordance with industry best practice as well as GD05;
 - b. Supporting calculations and design drawings;
 - c. Details of construction methods; Auckland Unitary Plan Operative in Part
 - d. Monitoring and maintenance requirements;
 - e. Catchment boundaries and contour information; and
 - f. Details relating to the management of exposed areas (e.g. grassing, mulch).
26. The Requiring Authority must ensure that all transformers containing more than 1000L of oil are banded. Each bund must be of sufficient capacity to contain the total volume of oil contained within each transformer plus an allowance for rainwater.
27. No earthworks activity on the subject site shall commence until confirmation from the council is provided that the ESCMP satisfactorily meets the requirements of GD05, and the erosion and sediment control measures referred to in that plan have been constructed or certified.

Advice note: For the purpose of compliance with this condition, "the council" refers to the council's monitoring inspector unless otherwise specified. Please contact the Team Leader Monitoring South at monitoring@aucklandcouncil.govt.nz to identify your allocated officer.

28. The operational effectiveness and efficiency of all erosion and

sediment control measures specifically required as a condition of this Notice of Requirement or by a certified ESCMP are to be maintained throughout the duration of earthworks activity, or until the site is permanently stabilised against erosion.

29. There must be no deposition of earth, mud, dirt or other debris on any public road or footpath outside the construction site resulting from earthworks activity on the project route.
30. In the event that such deposition does occur, it is to be removed immediately. In no instance are roads and/or footpaths to be washed down with water without appropriate erosion and sediment control measures in place to prevent contamination of the public stormwater drainage system, watercourses and/or receiving waters.
31. The sediment and erosion controls at the site of the works are to be inspected on a regular basis and within 24 hours of each rainstorm event that is likely to impair the function or performance of the erosion and sediment controls. A record is to be maintained of the date, time and any maintenance undertaken in association with this condition which is to be forwarded to the council on request.
32. All earthworks must occur between the hours of 7.30am and 6.00pm Monday to Saturday.

Advice note: Given the proximity of the works to the stream, regional earthworks consents may be required for the works in addition to other regional consents. If required these will need to be obtained prior to works commencing on the site.

Specialist Memo

(Technical specialist report to contribute to the Council's section 42A hearing report)

25 March 2022

To: Katrina David, Senior Policy Planner, Plans and Places, Auckland Council
From: Andrew Kalbarczyk, Senior Specialist – Contaminated Land, Contamination, Air & Noise, Specialist Input, Resource Consents

Subject: Notice of Requirement for a new designation for electricity supply purposes (Karaka Substation), under s168 of the RMA: 8 Whangapouri Road, Karaka, Lot 2 DP 473807: s42A Assessment Report (Contamination): D.002306.02

1.0 Introduction

I have undertaken a review of the Notice of Requirement (NoR) lodged by Counties Power Ltd in relation to the potential adverse effects on human health and the receiving environment, associated with the contamination of the subject site and relevant to the proposed designation of the site for electricity supply purposes, namely the construction of a new 110/220kV substation (Karaka Substation). The designation is aimed to enable the provision/delivery of the new infrastructure by Counties Power, required to meet the forecast electrical demand for the Pukekohe North area, including residential developments in Paerata Rise, Wesley, and Karaka North.

The proposed new designation site covers an area of 6,800m² in size, being a larger part of the existing 1.0724ha property at 8 Whangapouri Road, Karaka. The site has recently been purchased by Counties Power and it is intended to form a new legal lot through a formal subdivision process, scheduled to be applied for in the near future. The subdivision will be followed by a land-disturbance activity, involving the excavations for a 2m-deep basement for the switch room and transformers on concrete pad foundations, and construction of the substation infrastructure.

The subject site is currently located in the 'Rural - Mixed Rural Zone' in the AUP(OP).

In the process of preparing this Memo, I have reviewed the following reports/plan:

- *Notice of Requirement for Substation at 8 Whangapouri Road, Karaka: Counties Energy, Version 3.0*, submitted to the Council on 21 October 2021, prepared by Align Ltd ('the NoR report')
- *Detailed Site Investigation (DSI): 8 Whangapouri Road, Karaka, Auckland*, Reference REP-1625/DSI/JUL21, dated 3 August 2021, prepared by Geosciences Ltd ('the DSI report')
- *Scheme Plan: 8 Whangapouri Road, Karaka: Lot 2 DP 473807*, dated 26 August 2021, drawn by Envivo Ltd

2.0 Key contamination issues (relevant to protection of human health and the environment)

I consider the following regulations, plan, and policy statements to be relevant to the assessment of this NoR, in the context of the potential contamination of the site and the associated effects on human health and the environment:

- *Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations*, Ministry for the Environment, 2011 (NES:CS)
- Chapter E30 of the Auckland Unitary Plan (Operative in Part) (AUP(OP), Objective E30.2(1) and Policies E30.3(1 and 2)

- The Auckland Council Regional Policy Statement (Operative in Part), particularly Section 17, Objectives 17.3.1-3, and Policies 17.4.1.1-4
- National Policy Statement for Freshwater Management 2020, updated in August 2020, particularly Part 2, Objectives 2.1(1)(a-c), and Policies 2.2(1-5 and 13)

My assessment of the NoR and supporting documentation has been focused on identifying any major constrains, associated with the contamination status of the subject site, which would present an impediment to the proposed designation. Any other than major constrains, associated with potential contamination of the site can be dealt with at a later stage, under the requirements of the relevant regulatory consenting process, associated with the future construction of the project.

Based on the findings of the Detailed Site Investigation completed at the site, there has been no evidence of any records or signs of any historical, recent or current activities described on the Ministry for the Environment's *Hazardous Activities and Industries List* (2011) (HAIL), which have taken place or take place within the subject site and which the NES:CS Regulations would be relevant to. However, indicative testing of the subsurface soils on site identified the presence of an unexpected contamination hotspot, affected by selected metals in concentrations exceeding the Soil Contaminant Standard for protection of human health in commercial/industrial land use, set out in the NES:CS, Permitted Activity soil acceptance criteria, set out in the Contaminated Land Rules of the AUP(OP), and naturally occurring background levels in non-volcanic soils in the Auckland region.

Further delineation of the lateral extent of the identified contamination hotspot and remediation of the hotspot are proposed to be undertaken prior to the commencement of the intended site construction works.

3.0 Applicant's assessment

The objective of the Detailed Site Investigation was to make an assessment of the current contamination status of the subject site.

Based on the reviewed DSI report, there have been no available records or visual signs of any historical or recent/current HAIL activities to have taken place within the subject site, which the NES:CS Regulations would be relevant to. However, in order to determine the suitable disposal options for the excess material excavated during the intended development works at the site, a series of indicative soil samples were collected for analytical testing.

The interpretation of the testing results indicated a single area within the site, of approximately 1,380m² in size, containing elevated concentrations of arsenic, chromium, copper and lead, exceeding the relevant Soil Contaminant Standard for protection of human health in commercial/industrial land use, set out in the NES:CS, Permitted Activity soil acceptance criteria, set out in the Contaminated Land Rules of the AUP(OP), and naturally occurring background levels in non-volcanic soils in the Auckland region. Further delineation of the extent of the identified contamination hotspot is proposed to be undertaken prior to the commencement of the site development works.

As per the DSI report, the intended subdivision of the larger property (including the subject site) and subsequent land-disturbance activity are expected to follow the additional investigation and remediation of the identified contamination hotspot and subsequent validation of the affected area. A Remediation Action Plan is recommended to be prepared and submitted to the Council prior to the commencement of the remedial works. Relevant resource consents under the NES:CS and Contaminated Land Rules of the AUP(OP) are recommended to be sought from the Council in due course.

Apart from the identified contamination hotspot, all other parts of the subject site are considered to pose a negligibly low risk to human health and the environment from the perspective of contamination.

The 'NoR report' acknowledges that a Remediation Action Plan ('site remediation plan') will be required for the proposed substation construction works, in order to address any risks and potential effects on human health and the receiving environment. Also, the 'NoR report' confirms that a land use consent under the NES:CS and a Contaminant Discharge Consent under Contaminated Land Rules of the AUP(OP) will be sought for the remediation works prior to the substation construction phase.

I consider the recommendations for a further environmental assessment of the identified contamination hotspot and the preparation of a Remediation Action Plan as being satisfactory. I have adopted the above recommendations and incorporated them into the overall recommendations relevant to the NoR, in Section 6.0 of this Specialist Memo.

4.0 Assessment of the effects on human health and the environment, and management methods

The purpose of my review was to obtain an understanding of the constraints affecting the NoR and the relevant future land-disturbance within the site, associated with the potential contamination of soil.

My review included an assessment of the relevant reports submitted in support of the NoR and its compliance with the purpose of the NES:CS Regulations, and the objectives and policies of the AUP(OP), Auckland Council Regional Policy Statement, and National Policy Statement for Freshwater Management, relevant to contaminated land management.

I consider the information provided in support of the NoR as being adequate to obtain a general understanding of the scale and significance of the adverse effects on human health and the environment, anticipated from the implementation of the proposed designation.

While additional delineation of the identified contamination hotspot within the site is yet to be undertaken, a general overview of the current and former land use, and indicative soil testing has been included within the DSI report. I consider the currently available information as being sufficient for the purpose of this review, while I anticipate further detail on the extent of the contamination hotspot prior to the proposed land-disturbance works.

I consider the NoR to be consistent with the purpose of the NES:CS regulations, and the objectives and relevant policies of the AUP(OP), Auckland Council Regional Policy Statement, and National Policy Statement for Freshwater Management. I anticipate the subject site to be suitable for the intended land-disturbance works, subject to a further environmental assessment and remediation or management, as required.

5.0 Submissions

Based on your email dated 16 March 2022, I understand none of the submissions received have expressed any concerns relevant to the potential or actual contamination of the subject site, that may affect human health or the environment, as a result of the implementation of the new designation and proposed construction of the new substation.

6.0 Conclusions and recommendations

I consider the documentation provided in support of the NoR to be sufficiently adequate to identify the relevant potential effects of the implementation of the proposed designation on human health and the environment.

There appear to be no significant issues of concern with regards to contamination within the subject site, that would affect the designation in principle. However, the identified presence of a contamination hotspot within the site poses a risk to human health and the environment, and therefore a recommendation has been made that a further environmental assessment and remediation of the hotspot be undertaken at a later stage, prior to the lodgement of a resource consent application for the subdivision and land-disturbance works.

From the perspective of contamination and the associated potential effects on human health and the environment, I consider the NoR to be consistent with the purpose of the NES:CS, and relevant objectives and policies of the Contaminated Land Rules of the AUP(OP), Auckland Council Regional Policy Statement, and National Policy Statement for Freshwater Management.

None of the submissions received have raised an issue of concern relevant to the contamination of the soil, associated with the former/current land use.

Overall, from the perspective of the contamination status of the subject site and potential effects on human health and the environment, I recommend that the NoR be supported, subject to the following actions taken prior to the proposed subdivision and land-disturbance activity:

- Undertaking a further environmental assessment of the identified contamination hotspot to define the actual risks to human health and the environment, and adopt the relevant mitigation options
- Undertaking remediation or management of the identified contamination hotspot on site to mitigate the risks to human health and the environment
- Implementing adequate controls, management procedures, and mitigation measures during the land-disturbance activity on site, in order to protect human health and the environment
- Adopting the industry best practice to avoid, remedy, or mitigate any adverse effects on human health and the environment during the proposed land-disturbance activity

ATTACHMENT 3
SUBMISSIONS

The following customer has submitted a Notice of Requirement online submission.

Contact details

Full name of submitter: Qing Chen

Organisation name: The Light of Mercy Charitable Trust

Full name of your agent: Vignesh Divakar

Email address: vignesh@mhg.co.nz

Contact phone number: 021661973

Postal address:
14 Whangapouri Road
Karaka
Auckland 2578

Submission details

Name of requiring authority: Counties Energy Limited (formerly Counties Power Limited) Notice of Requirement for Whangapouri Road Substation

The designation or alteration: Counties Energy Limited (formerly Counties Power Limited) Notice of Requirement for Whangapouri Road Substation

The specific provisions that my submission relates to are:

Do you support or oppose the Notice of Requirement? I or we oppose the Notice of Requirement.

The reason for my or our views are:
Refer to the submission letter

I or we seek the following recommendation or decision from Auckland Council:
Refer to the submission letter

Submission date: 21 February 2022

Supporting documents
NOR Submission - 14 Whangapouri Road.pdf

Attend a hearing

Do you wish to be heard in support of your submission? Yes

Would you consider presenting a joint case at a hearing if others have made a similar submission?
Yes

Declaration

I accept and agree that:

- by taking part in this public submission process that my submission (including personal details, names and addresses) will be made public,

- I or we must serve a copy of the submission on the person who gave the notice of requirement as soon as reasonably practicable after submitting to Auckland Council.



It's election year.

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to find out what this means for you.

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From the planner



ATTN: The Planning Technician,
Auckland Council.
Level 24, 135 Albert Street
Private Bag 92300
Auckland 1142

Dear Sir or Madam

RE: Submission for the Notice of Requirement (NOR) for a new substation at 8 Whangapouri Road, Karaka

To: Auckland Council

Name of the Submitter: The Light of Mercy Charitable Trust

Affected Site: 14 Whangapouri Road, Karaka (Legal Description: Lot 1 DP 473807)



Figure 1: Aerial view of the submitter's site

This submission is made under Clause 6A of Schedule 1 of the Resource Management Act, 1991.

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Vignesh@mhg.co.nz | 09 950 5105

www.mhg.co.nz

The applicants are not trade competitors for the purposes of section 308D of the Resource Management Act 1991.

The submitter opposes the establishment of the substation.

As per the applicant's reports, the substation is proposed to serve the electricity demands for the upcoming residential developments in Paerata Rise, Wesley and Karaka North. The applicant's site is also close to properties designated under the Drury Future Urban Zone which is planned to be developed within the next 10 years.

Considering these factors, one may believe that a substation would be required to serve the electricity needs of the future population. Although a substation might be beneficial to the future population, it is essential to consider the potential impacts the substation could impose on the people currently residing in the neighbouring properties. The neighbouring site may be adversely affected by the impacts of the substation.

It is essential to note that the substation is proposed in a rural environment. The submitters consider that a significant structure like a substation is an unusual building form for a rural environment. They also consider that the applicant hadn't considered many options for alternative options since there are other appropriate sites around the area that may be well or better suited. Being an immediate neighbour to the applicant's site, the submitters believe that the proposed substation may have adverse effects on their amenity and value at the very least and therefore oppose its establishment.

1. Provisions of the proposal pertaining to the submitter:

1.1. The applicant considers that the submitter's site is not a highly sensitive receptor since it is currently a Buddhist Temple and not frequented by visitors. The structure on the submitter's site is a residential dwelling offering accommodation to the volunteers and lecturers. It is noted that say on monthly occasions prayer meetings have been held within the building.

1.2. The applicant also considers that the proposed landscape buffer around the substation and adequate acoustic design will ensure that the residents at the submitter's site will have less than minor adverse effects while there had been no information from the applicant on the overhead wirings that may be required to be installed as a part of the substation. It is our submission that the residents may be adversely affected having a substation close to their property therefore opposing the proposal.

2. Reasons for the submitter's position:

2.1. The submitter hadn't been informed about the establishment of a substation although being an immediate neighbour to the proposed site. The first they heard of it was through a neighbour. The submitters didn't receive any notice from the council initially. The notice was received on 26 January 2022, after the deadline for the submissions were extended to 25 February 2022.

2.2. The submitters have obtained the resource consent for the current existing structure as a dwelling, and it serves as a residence to the lecturers and volunteers of both local and overseas origins. Currently, the dwelling is less frequented by their volunteers due to

Covid 19 and is expected to recover soon when the international borders are reopened for immigrants and tourists.

- 2.3. Although the submitter's site had been less frequented by visitors currently, a family is residing in the dwelling full-time for maintaining the property and they fear that the substation could have significant adverse effects on their livelihood. The submitters believe that it is incorrect to classify their residence as a Buddhist Temple and not having permanent inhabitants.

Visual Dominance and proposed mitigation measures:

- 2.4. The report mentioned that most parts of the substation will not be visible from the submitter's site. The submitters chose this site for establishing their dwelling since they believed that this site could offer their residents a sense of a countryside lifestyle away from an urban life. Being an immediate neighbour, a towering substation could render the intentions of the submitter moot.
- 2.5. Further, the schematic cross section illustrated in the s92 Response had considered the viewpoint from the entrance of the submitter's dwelling. The viewpoint may have noted that the substation could impose considerable visual dominance effects if it had been taken from the adjoining southern boundary of the submitter's site. It is expected that the residents will be using the southern boundary of the submitter's site for any outdoor or recreational activities and a substation could impose significant visual dominance effects. The proposed hedge buffer may not offer adequate visual effects mitigation in this case.

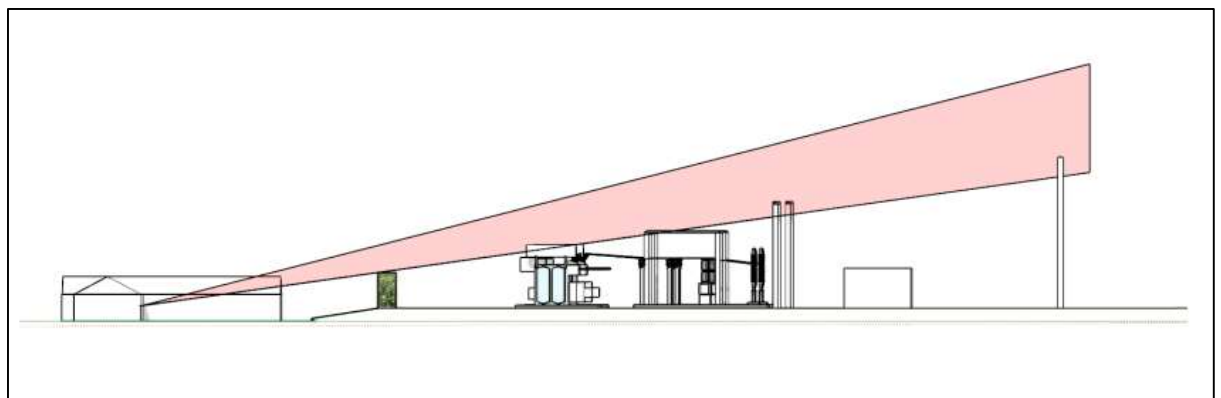


Figure 2: Schematic illustration of visual dominance effects by the applicant from the submitter's site

- 2.6. The Landscape and Visual Impact Assessment (LVIA) report submitted by the applicant had proposed native hedging along the northern boundary of the substation while a mix of trees and hedge grouping has been proposed along the Karaka Road frontage to mitigate visual dominance effects. The hedges proposed by the applicant can grow only up to 3m in height over a 10-year maturity period which may be inadequate to mitigate the visual dominance of a larger structure such as a substation.

4.1.b.i Indicative Plant Schedule

Botanical Name	Common name	Grade at planting	Height (0-5 years)	Height at Maturity (10 years+)	Spread at maturity
<i>Alectryon excelsus</i>	Titoki	45 Litres	3 metres	8 metres	5 metres
<i>Phormium tenax</i>	Harakeke (flax)	2.5 Litres	2 metres	3 metres	2 metres

Figure 3: Planting schedule proposed by the applicant

2.7. While the planting schedule mentions that the hedges can grow until 3m high, the s92 response states that the northern boundary of the substation will be provided with 4m high hedge. This seems to be contradicting since there aren't other hedges that are proposed in the landscape concept plan. Refer to the image below.

6.1.b.v Other Neighbouring Properties

14 Whangapouri Road

14 Whangapouri Road adjoining the northern boundary is a converted residential dwelling operating as a Buddhist Temple. The proposal will have initial adverse effects on amenity for visitors approaching the temple from SH22 as it contrasts the open character of the site. Existing mitigation measures in place include the 4-metre-high hedge on the northern boundary, which restricts views from the temple and will screen the switch room, the lower portion of the gantry structures, security fences and any regular activity on site. The gantry structures will be setback approximately 40-50 metres from the north boundary and will only be partially visible above the hedge line. As the temple is not occupied as a residence full time it is not considered a highly sensitive receptor.

Figure 4: LVIA Assessment by the applicant for the submitter's property.

2.8. The viewpoints 2 – 4 considered for the LVIA does not have any relevance to the visual dominance effects of the substation since they are taken at a significant distance from the subject site. The viewpoints should have been taken from the immediate neighbours' properties which could have revealed the substation's significant visual dominance effects and how the hedge buffer may not have been an adequate mitigation.



Figure 5: Viewpoints considered by the applicant for the LVIA Report

2.9. A substation with similar building footprint has been identified in Whangarata Road, Tuakau by the submitters. The current existing structure imposes significant visual dominance to the neighbourhood due to lack of visual buffer as illustrated in the images below and the imposition of additional overhead wires. Being an immediate neighbour, the submitters believe that the proposed substation may also exert similar level of visual dominance if the proposed buffer is inadequate.



Figure 6: Existing substation at Whangarata Road, Tuakau.

Health and Safety Concerns:

2.10. The applicant had not provided any information about the overhead transmission lines which are considered as an integral part of a substation. The concept layout of the substation indicates that two 12m high gantries are proposed while no information had

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been provided on the nature, working or the potential hazards (with regards to visual impact and safety) of the transmission cables that may run over the submitter's property.

- 2.11. Being close to the applicant's site, the submitters believe that their lecturers and visitors may show little interest in residing or visiting their property since their visitors fear they might be exposed to any harmful radiation from the substation or from the transmission lines. Since there is no information on the layout of the overhead cables and how it might affect the submitter's property, the submitters consider that the transmission lines may restrict the site's development potential if they had been deployed over the property.
- 2.12. The preliminary noise assessment submitted by the applicant had mentioned that the noise levels from the substation will be within the permissible AUP limits of 45dB. Although the applicant had ensured adequate noise mitigation measures will be provided to the structure, the submitter is concerned that the structure may generate more noise if any part of the machinery is not in a proper working condition. The submitter is concerned that this might affect the livelihood of the residents dwelling in their property.
- 2.13. The submitter had moved from Greenlane to Karaka to offer a clean and green countryside living to their residents and they consider the substation could render their intention moot if it is developed. The submitters believe that the substation would impact them financially since they believe that their property might lose its commercial value and may not be able to sell this property even if they are willing to move to another site.

Traffic and Safety concerns:

- 2.14. As a part of improvising Auckland's Road infrastructure, there had been a plan drafted by Waka Kotahi to improvise the safety features on SH22 running between Drury and Paerata since it is an extremely busy and dangerous road. Upgrades were planned to develop the intersection of Whangapouri and Bycroft Road. However, those plans were cancelled by Waka Kotahi due to financial issues.
- 2.15. The Whangapouri Road experiences a traffic volume of 400 vehicles a day turning out on to SH22¹. Now that the plans for improvising the safety features of this road have been cancelled, the submitters believe that the substation might further increase the traffic volume in an already dangerous road and thereby increasing the chances of traffic incidents around the area.
- 2.16. The applicant had proposed that all exterior lighting will be positioned and aimed within the site to avoid the adverse effects on immediate neighbours. However, there had been no information on the impacts of the lighting towards the road users of SH22.
3. Requested Changes by the submitter:
- 3.1. The intersection of Whangapouri Road and Karaka Road is subjected to frequent traffic incidents due to inadequate sightlines for the driver while merging onto the Karaka Road.

¹ Sourced from the 2021 Traffic count data by Auckland Transport

The submitter requests the applicant to amend the proposed landscape plan to reflect the following changes:

- 3.1.1. The landscape hedging proposed along the Karaka Road frontage must be setback further to allow space for any future road widening activities and to allow adequate sightlines for the vehicle users merging onto Karaka Road from Whangapouri Road.
- 3.1.2. The boundary adjacent to the intersection of the aforementioned roads to be tapered similar to the tapering provided on the intersection of Karaka Road and Bycroft Road to offer better sightlines. The landscape plan should be amended as to not propose any hedge buffer in that tapered portion. Refer to the image below.



Figure 7: Tapering requested by the submitter to the applicant's boundary as similar to the opposite intersection.

- 3.2. The submitter seeks consultation with the applicant to discuss about the provision of adequate landscape buffer to the northern boundary as mentioned in the updated draft conditions.

- 3.3. Being a close neighbour and one of the significantly affected parties by the substation, the submitters believe that if this proceeds some form of compensation, greater than the mitigation offered should be considered.
4. The submitter wished to be heard at any hearing and also asks that all updates and notices are also served to us as agents on the email and postal addresses noted below.



Dated: 24th January 2022

Vignesh Divakar – As Authorised agent and Planner for Mt Hobson Group

Address for Service:

Mt Hobson Group

PO Box 37964

Parnell

Auckland 1151

M: 0272068047

Email: Vignesh@mhg.co.nz

Submission on a requirement for a designation or an alteration to a designation subject to full or limited notification



Section 149ZCC of the Resource Management Act 1991 of the Resource Management Act 1991
FORM 21

Send your submission to unitaryplan@aucklandcouncil.govt.nz or post to :

Attn: Planning Technician
Auckland Council
Level 24, 135 Albert Street
Private Bag 92300
Auckland 1142

For office use only
Submission No:
Receipt Date:

Submitter details

Full Name or Name of Agent (if applicable)

Mr/Mrs/Miss/Ms(Full Name) Ryan Keegan

Organisation Name (if submission is made on behalf of Organisation)

Sublime Property Management

Address for service of Submitter

PO Box 395, Pukekohe

Telephone: 21477454 Fax/Email: ryan@navigationhomes.co.nz

Contact Person: (Name and designation if applicable)

This is a submission on a notice of requirement:

By:: Name of Requiring Authority	<u>Counties Energy Limited (formerly Counties Power Limited)</u>
For: A new designation or alteration to an existing designation	<u>Whangapouri Road Substation</u>

The specific parts of the above notice of requirement that my submission relates to are: *(give details)*

My submission is:

I or we support of the Notice of Requirement I or we oppose to the Notice of Requirement
I or we are neutral to the Notice of Requirement

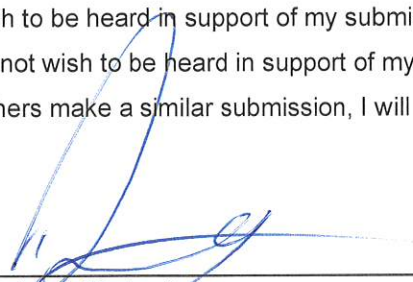
The reasons for my views are:

See attached letter

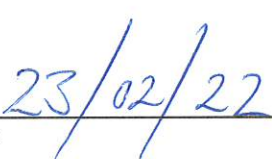
(continue on a separate sheet if necessary)

I seek the following recommendation or decision from the Council *(give precise details including the general nature of any conditions sought).*

- I wish to be heard in support of my submission
- I do not wish to be heard in support of my submission
- If others make a similar submission, I will consider presenting a joint case with them at a hearing



 Signature of Submitter
(or person authorised to sign on behalf of submitter)



 Date

Notes to person making submission:
 If you are making a submission to the Environmental Protection Authority, you should use Form 16B.

You must serve a copy of your submission on the person who gave the notice of requirement as soon as reasonably practicable after you have served your submission on the Council (unless the Council itself, as requiring authority, gave the notice of requirement)

If your submission relates to a notice of requirement for a designation or alteration to a designation and you are a trade competitor of the requiring authority, you may make a submission only if you are directly affected by an effect of the activity to which the requirement relates that:

- (a) Adversely affects the environment, and
- (b) Does not relate to trade competition or the effects of trade competition.

To: Auckland Council

Name of the Submitter: Sublime Property Management Ltd

Affected Site: 5 Whangapouri Rd, Karaka (Legal Description: Lot 1 DP 160127)

RE: Submission for the Notice of Requirement (NOR) for a new substation at 8 Whangapouri Road, Karaka

This submission is made under Clause 6A of Schedule 1 of the Resource Management Act, 1991.

1) Lack of consultation & inaccuracies in the Counties Energy supporting documentation;

- There has been no formal notification to adjacent residents of this project going ahead
- We believe there are a number of blatant inaccuracies in the documentation around claims this project is compatible with surrounding land use including (but not limited to):-
 - No 5 Whangapouri Rd (Immediately across the road): Counties Energy supporting documentation to Council claims this land will be a 'storage yard for a Building Company'. **This is incorrect.**
 - Navigation Homes are currently building a 6 bedroom Show Home (design chosen to be congruent with high end residential properties within this area), that according to their business model will be sold as a residential home in 3-5 years.
 - No 14 Whangapouri Rd (immediate boundary neighbour): Their documentation to Council claims this site to be a 'Buddhist Temple' that does not have permanent inhabitants. **This is incorrect.**
 - This house was built & sold as a residence and has a young family living there full time. It is not a Buddhist Temple.
 - No 21A Whangapouri Rd (our property also immediately across the road): We don't believe our neighbouring working farm (race horses, sheep, cattle) should be considered compatible use. We are concerned about the impact of a sub station with our horse breeding programme.

How can these inaccuracies within documentation that Counties Energy have sent to Council in support of their proposal (and seeking designations/approvals so Power Station can go ahead) be addressed with no consultation? As a result, any permissions given by Council will be based on them being supplied false information.

2) Not the appropriate site for a significant industrial installation in a rural/lifestyle location

- We agree that industrial installations like this are needed to support the growth in the larger area. However, there is a significant amount of land that is zoned for future industrial and other development in the area that would be better suited for this construction. Alternatively, as this structure is being proposed to support the ongoing development around Drury West we believe a site closer to Paerata, (already heavily developed and still within proximity of SH22 corridor) would be far more appropriate

- Counties Energy have been unspecific within their proposal with regard to the plan for high voltage wires entering and leaving the site and the external support structures required for these. I would have thought this would have been crucial information ahead of any permissions given.

Significant Health & Safety Concerns

The most important is health and safety considerations. For several years and as part of the Auckland Unitary Plan, there has been a focus to make SH22 between Drury & Paerata safer.

- There was meant to be an upgrade to the Whangapouri & Bycroft Rd intersection. Whangapouri road has more than 500 vehicles a day that turn out of that road onto SH22 – previously proposed has been a roundabout, safety barriers, 2m wide shoulder improving cycling accessibility & new passing opportunities at roundabouts.
 - We have recently been told by Waka Kotahi that the upgrade project has been cancelled as there is no money available.
 - There is an extreme traffic accident risk with plans for this substation to be built on the corner of an already busy & extremely dangerous intersection.
 - Counties Energy proposal states that all exterior on-site lighting must be positioned and aimed within the site, away from adjacent properties so as to minimise the level of light spill and glare.
 - Concerns of the lighting impact while driving on SH22
 - Medical impact on humans living in close proximity to power stations and also under high voltage power lines
 - We also have expensive thoroughbred pregnant horses and their young foals in the paddock immediately opposite the proposed site. There can be no guarantee that this Power Station will not have a detrimental effect on their health and wellbeing.
 - The site where the substation is to be located has human and animal habitation and concerns are around high levels of radiation off the substation.
 - Visual amenity issues are also present for the owner of 5 Whangapouri Rd, Karaka (Legal Description: Lot 1 DP 160127) and the other neighbours, visual amenity and health implications could decrease the value of this site and the surrounding homes around the proposed substation.
 - Public notification and mediation under The Resource Management Act would be the correct process, Limited notification should have, or should be undertaken and the owners at 5 Whangapouri Rd, Karaka (Legal Description: Lot 1 DP 160127) would object on the basis of the loss of visual amenity, health implications and potential loss of value of the properties surrounding are real implications that need to be considered.
 - Counties Power's obligation to increase capacity is present and we understand this, however, increasing capacity and installing substations needs to be done in a controlled manner where effects to human, flora, and fauna species are taken into consideration. We believe these considerations have not be investigated and strongly object to this location.
 - It is therefore requested, with our involvement, the substation is not permitted where it is proposed as the effects to the environment, human life or health, animal life or health could be seriously compromised.

ATTACHMENT 4
RECOMMENDED CONDITIONS

Attachment 4 – Recommended Conditions

These conditions are based on the Working draft conditions version 2, dated 5 December 2021. All strikethrough and underline contained in the 5 December version have been accepted.

All ~~strikethrough~~ and underline shown in purple are the recommended changes from Katrina David – council’s reporting planner

Additional clauses given temporary letter suffix and renumbering based on final version will be required.

Version: Section 42A – Attachment 4 Recommended conditions 5 April 2022

XXXX Counties Energy Whangapouri Road Substation

Designation Number	XXXX
Requiring Authority	Counties Energy Limited
Location	Whangapouri Road, Karaka
Lapse Date	10 <u>5</u> years from date of inclusion in the Auckland Unitary Plan

Purpose

‘Electricity supply purposes’

ConditionsGeneral

1. The designation shall lapse ~~10~~five years from the date of inclusion in the Auckland Unitary Plan in accordance with section 184(1)(c) of the Resource Management Act 1991 (RMA).
2. Any additional matters requiring regional consents or approvals (such as National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) must be obtained prior to works commencing.

Outline Plan(s)

3. Prior to commencement of construction, the requiring authority must submit an Outline Plan to the territorial authority in accordance with section 176A of the RMA to allow the territorial authority to request changes before construction commences. The Outline Plan will include:
 - a. The height, shape, and bulk of the public work, project, or work; ~~and~~

- b. The location on the site of the public work, project, or work; ~~and~~
- c. The likely finished contour of the site; ~~and~~
- d. The vehicular access crossings, circulation, and the provision for parking ~~conforming with the relevant Auckland Transport standards and guidelines, based on a boundary defined by the Waka Kotahi NZTA designation boundary; and~~
- e. ~~A detailed Landscape Plan generally in accordance with the landscape concept plan set out in the LVIA prepared by Align Ltd prepared by a suitably qualified person~~ the landscaping proposed; and
- f. ~~The extent of any stormwater discharges to the road reserve; and~~
- g. ~~f.~~ f. Any other matters to avoid, remedy, or mitigate any adverse effects on the environment, ~~including compliance with the following Rules of the Auckland Unitary Plan:~~
 - i. ~~Rule E26.2.5.2(6) – Electricity transmission and distribution (Electric and magnetic fields).~~
 - ii. ~~Rule E26.2.5.2(7) – Radio Frequency Fields (RF fields).~~
 - iii. ~~Rule E26.2.5.3(2) – Noise from substations.~~
 - iv. ~~Rule E24.6.1 – General standards for Lighting.~~

3A. In addition to the matters set out in Condition 3 the Outline Plan must:

- a) include the extent of any stormwater discharges to the road reserve;
- b) demonstrate how the proposal will be compliant with the conditions;
- c) include the outcome of the consultation required by Conditions 5 and 6A;
- d) include a detailed landscape plan as detailed in Condition 14A; and
- e) include the following management plans, each prepared by a suitable qualified and experienced professional:
 - (i) Construction Environmental Management Plan as detailed in Condition 8;
 - (ii) Construction Noise and Vibration Management Plan as detailed in condition 9A;
 - (iii) Construction Traffic Management Plan as detailed in condition 8A;
 - (iv) Erosion and Sediment Control Management Plan as detailed in conditions 26 to 33; and
 - (v) Environmental Management Plan for Hazardous Substances as detailed in condition 21.

Consultation with Waka Kotahi NZ Transport Agency

- 4. Counties Energy shall liaise with Waka Kotahi NZ Transport Agency during the detailed design and subsequent construction processes prior to undertaking

any work pursuant to this designation to ensure that the proposed works are integrated and managed in a manner suitable to both parties.

Consultation with ~~Ngati Ngāti~~ Tamaoho

5. Counties Energy shall consult with ~~Ngati Ngāti~~ Tamaoho during the detailed design and subsequent construction processes prior to undertaking any work pursuant to this designation to ensure that the proposed design addresses their suggestions about switch room colour and finish.

~~6. The outcome of such consultation shall be provided to the Council as part of any Outline Plan of Works required by section 176A of the Resource Management Act 1991.~~

Consultation with Adjoining Owners

- 6A. Counties Energy shall consult with the owners of 5 ~~&and~~ 14 Whangapouri Road during the detailed design process to ensure that their suggestions and preferences are taken into account when preparing the detailed Landscaping Plan required by Condition 3A(d)(e).

Construction Environmental Management Plan (CEMP)

~~7. A Construction Environmental Plan shall be prepared by a suitably qualified person and submitted to Auckland Council Resource Consents department for certification at least one month prior to the initial construction commencement date.~~

8. The purpose of the CEMP required by Condition 3A is to avoid, remedy or mitigate adverse effects associated with the construction works associated with the Project. The CEMP must contain the following:
 - a. Where access points are to be located and procedures for managing construction vehicle ingress and egress to construction support and storage areas;
 - b. Methods for managing and monitoring dust as a nuisance, including methods for minimising dust emissions, monitoring procedures and contingency procedures in the event of a dust nuisance event;
 - c. Measures to be adopted to keep the construction areas in a tidy condition in terms of disposal / storage of rubbish and storage, unloading construction materials (including equipment). All storage of materials and equipment associated with the construction works must take place within the boundaries of the designation;
 - d. The location of any temporary buildings (including workers' offices and portaloos) and vehicle parking (which should be located in the construction area and not on adjacent streets);
 - e. Information on designated staff parking areas for construction workers;

~~and~~

- f. Training requirements for employees, sub-contractor and visitors on construction procedures, environmental management and monitoring;
- g. Environmental incident and emergency management procedures (excluding spills); and
- h. An outline of the construction programme of the work, including construction hours of operation, indicating linkages to the other management plans which address the management of adverse effects during construction.

8A. A Construction Traffic Management Plan (CTMP) must be prepared by a suitably qualified person and must include any feedback from Auckland Transport and Waka Kotahi NZ Transport Agency and an explanation where any of their recommendations have not been adopted within the plan.

9. All construction ~~and maintenance~~ work (as defined in NZS 6803:1999) must shall be designed, managed and conducted to ensure that construction ~~and maintenance~~ noise from the site does not exceed the limits in NZS 6803:1999 Acoustics - Construction Noise at locations set out in section 6.2 of that standard.

9A. A Construction Noise and Vibration Management Plan (CNVMP) must be prepared, with the assistance of a suitably qualified and experienced professional, that sets out the management procedures in terms of Section 8 and Annex E of NZS 6803:1999 and the works must be undertaken in accordance with that CNVMP.

10. In accordance with NZS 6803:1999 Acoustics - Construction Noise, construction activities are to occur between 7.30am and 6.00pm Monday to Saturday, with no construction to occur on Sundays or public holidays unless otherwise authorised through the CNVMP required by Condition 9A.
11. The noise limits set out in Condition 9 above shall not apply to emergency work required to re-establish continuity of supply, work urgently required to prevent loss of life or other personal injury, or commissioning works at the substation site, but all practicable steps shall be undertaken to control noise and to avoid adverse noise effect.

Operational Noise

- 11A. Noise from the substation must not exceed the following noise limits when measured within the notional boundary of all adjacent properties:
 - a. 55 dB LAeq between Monday to Saturday 7am to 10pm and Sundays 9am to 6pm and
 - b. 45 dB LAeq/75 dB LAmax for all other times.

Advice note: The noise limits set out in this Condition shall not apply to

emergency work required to re-establish continuity of supply, work urgently required to prevent loss of life or other personal injury, or commissioning works at the substation site, but all practicable steps shall be undertaken to control noise and to avoid adverse noise effect.

Site access

12. The site must be safe and secure from unauthorised public access at all times during construction and operation.

Accidental Discovery Protocols

13. If any archaeological sites, ~~urupa~~ urupā, traditional sites, taonga (significant artefacts), or ~~keiwi~~ kōiwi (human remains) are exposed during site works, then the following procedures shall apply:
 - a. Works in the immediate vicinity of the site that has been exposed shall cease;
 - b. The site supervisor shall immediately secure the area in a way that ensures that any remains or artefacts are untouched;
 - c. The site supervisor shall notify representatives of relevant tangata whenua, the Heritage New Zealand Pouhere Taonga, the Auckland Council and, in the case of human remains, the New Zealand Police; ~~and~~
 - d. The notification in (c) above shall allow such persons being given a reasonable time to record and recover archaeological features discovered before work may recommence on the exposed site; ~~and~~
 - e. Works shall not commence in the immediate vicinity of the archaeological site until any approval required from the Heritage New Zealand Pouhere Taonga is obtained.

Landscaping and visual

14. [Deleted]

- 14A. The purpose of the Detailed Landscape Plan required in Condition 3A is to ensure planting around the substation mitigates the adverse visual and amenity effects of the substation on the neighbouring properties and wider environment by creating a dense screen of permanent vegetation. The detailed landscape plan must be prepared by an experienced and qualified landscape architect or landscape professional and must:
 - a) Provide sufficient space and depth of planting – incorporating at least two rows of taller planting along the boundaries shared with Karaka Road, Whangapouri Road and 14 Whangapouri Road – to achieve the level of screening indicated in the Landscape and Visual Assessment (Align Ltd, version 2, October 2021) simulations for 0-5 years and 5-10 years;
 - b) Detail the type of species to be planted, their spacing, and their size at the time of planting; and

- c) Ensure the planting required by clauses a) and b) is set back on the southwestern corner of the site to ensure compliance with Condition 14C.

14B. During the planting season immediately following the completion of bulk earthworks on the site, the Requiring Authority must implement the detailed landscape plan required by Condition 3A.

14C. No landscaping, planting or other objects exceeding 80 centimetres in height shall be located within a right angled triangular area with sides of 5 metres length located on the southwestern corner of the site as measured from the Waka Kotahi NZ Transport Agency road widening designation existing on 31 March 2022.

15. All landscaping and planting shall be maintained in good condition for the term of the designation, and any plantings that clearly fail to thrive in the first three years after establishment or which fail to mature thereafter shall be replaced no later than the next planting season.
16. The substation switchroom is required to have exterior cladding and colour that are recessive, such as grey or earthy tones, so that it modulates its form and surfaces. The purpose of this condition is to ensure that the substation building does not appear excessively mono-textural and/or monolithic.

Maximum Height of Structures

- 16A. The maximum height of poles (excluding insulators) and support structures within the designated area shall be 17m, and all other buildings must not exceed ~~the maximum-15m in height-limit for buildings in rural zones.~~

Setbacks

- 16B. Buildings and structures must not be located within 10m of the Whangapouri Road boundary.

Electric Magnetic Fields (EMF)

17. The operation of the substation shall at all times comply with the International Commission on Non-ionising Radiation Protection Guidelines (ICNIRP) for limiting exposure to time varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 2010, 99(6); 818-836) and recommendations from the World Health Organisation monograph Environmental Health Criteria (No 238, June 2007).

17A. Within 6 months of the substation commencing operation the Requiring Authority must engage an electrical engineer to confirm compliance with the ICNIRP guidelines as evidenced by actual measurement of electric and magnetic fields at relevant locations. The engineer's report must be submitted to council's manager compliance and monitoring. In the event of any non-compliance, the report shall demonstrate how compliance will be achieved and the timeframes for completion.

Electrical Interference

18. Every reasonable effort must be made to ensure that the substation is operated, managed or controlled so that there is no electrical interference with television or radio reception at any adjacent property including complying with the requirements of the Radio Communications Regulations 2001, the Ministry of Economic Development's Radio Spectrum Management "Compliance Guide" (November 2004), NZ Standard for Radiofrequency Fields Part 1 (1999) and relevant Gazetted Notices.

Lighting

19. All exterior on-site lighting must be positioned and aimed within the site, away from adjacent properties and public roads, to minimise the level of light spill and glare.

Surface water

20. The Requiring Authority must maintain and regularly clean all stormwater catch pits, channels, grates, pipes and other stormwater collection systems to ensure they operate in an effective manner.

Hazardous Substances Environmental Management Plan (HSEMP)

21. The purpose of the HSEMP required by Condition 3A is to outline the methodologies and processes that will be adopted to ensure that the risks of storing and using hazardous substances within the subject site will be appropriately managed by the Requiring Authority for the duration of the operation of the electrical substation. The HSEMP ~~shall be submitted to Council prior for approval to operation and must~~ contain the following:
 - a. The appropriate hazardous substance methodologies for:
 - Storage;
 - Handling;
 - Transport; and
 - Disposal.
 - b. Provide information to regulatory authorities to demonstrate that the possible risks as a result of storage and use of hazardous substances have been considered and will be appropriately managed by the Requiring Authority;
 - c. Methods to ensure prevention and mitigation of adverse effects associated with the storage, use, disposal, or transportation of hazardous substances;
 - d. Training requirements for employees, sub-contractor and visitors on construction procedures, environmental management and monitoring;
 - e. The document management system for administering the HSEMP,

- including review and Requiring Authority / constructor / council requirements;
- f. Environmental incident and emergency management procedures (including spills);
 - g. Environmental complaint management procedures; and
 - h. Methods to provide for the safety of the general public.
22. The Requiring Authority must ensure that all transformers containing more than 1000L of oil are bunded. Each bund must be of sufficient capacity to contain the total volume of oil contained within each transformer plus an allowance for rainwater.

Vehicle crossings

23. [deleted]

23A. The vehicle crossing for the sub-station must be designed and formed in accordance with either the GD020A Rural Vehicle Crossing standard set out in Auckland Transport's Code of Practice (ATCOP) or VX0303 Rural Crossing Standards set out in Auckland Transport's Transport Design Manual (TDM), whichever is operative at the time of construction.

23B. Any vehicle crossing access to Whangapouri Road must be located a minimum of 10 metres beyond the Waka Kotahi NZ Transport Agency road widening designation 6705 boundary. If the road widening designation no longer applies to the site, then any vehicle crossing access to Whangapouri Road must be located a minimum of 10 metres from the boundary of the site and Karaka Road.

23C. No motor vehicle access (beyond vehicle access to support efficient maintenance of the substation grounds and buildings) is to be obtained from Karaka Road.

24. [deleted]

24A. Prior to operation of the substation, the berm must be re-instated to Auckland Council's "Code of Practice for Working in the Road" (<https://at.govt.nz/about-us/working-on-the-road>).

25. [deleted]

Erosion and Sediment Control Management Plan (ESCMP)

26. ~~The Erosion and Sediment Control Management Plan (ESCMP) 10.~~ The purpose of the ESCMP required by Condition 3A is to describe the methods and practices to be implemented to minimise the effects of sediment generation and yield on the receiving environment associated with the construction phase. The ESCMP shall be prepared in accordance with the council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region

Guideline Document 2016/005 (GD05) and any subsequent updates. The requiring authority must undertake construction in accordance with [the ESCMP](#) and must contain the following:

- a. Specific erosion and sediment control works for each stage (location, dimensions, capacity) in accordance with industry best practice as well as GD05;
- b. Supporting calculations and design drawings;
- c. Details of construction methods; [Auckland Unitary Plan Operative in Part](#)
- d. Monitoring and maintenance requirements;
- e. Catchment boundaries and contour information; and
- f. Details relating to the management of exposed areas (e.g. grassing, mulch).

~~27. The Requiring Authority must ensure that all transformers containing more than 1000L of oil are banded. Each band must be of sufficient capacity to contain the total volume of oil contained within each transformer plus an allowance for rainwater.~~

28. No earthworks activity on the subject site shall commence until confirmation from the council is provided that the ESCMP satisfactorily meets the requirements of GD05, and the erosion and sediment control measures referred to in that plan have been constructed or certified.

Advice note: For the purpose of compliance with this condition, "the council" refers to the council's monitoring inspector unless otherwise specified. Please contact the Team Leader Monitoring South at monitoring@aucklandcouncil.govt.nz to identify your allocated officer.

29. The operational effectiveness and efficiency of all erosion and sediment control measures specifically required as a condition of this Notice of Requirement or by a certified ESCMP are to be maintained throughout the duration of earthworks activity, or until the site is permanently stabilised against erosion.
30. There must be no deposition of earth, mud, dirt or other debris on any public road or footpath outside the construction site resulting from earthworks activity on the project route.
31. In the event that such deposition does occur, it is to be removed immediately. In no instance are roads and/or footpaths to be washed down with water without appropriate erosion and sediment control measures in place to prevent contamination of the public stormwater drainage system, watercourses and/or receiving waters.
32. The sediment and erosion controls at the site of the works are to be inspected

on a regular basis and within 24 hours of each rainstorm event that is likely to impair the function or performance of the erosion and sediment controls. A record is to be maintained of the date, time and any maintenance undertaken in association with this condition which is to be forwarded to the council on request.

33. All earthworks must occur between the hours of 7.30am and 6.00pm Monday to Saturday.

~~*Advice note: Given the proximity of the works to the stream, regional earthworks consents may be required for the works in addition to other regional consents. If required these will need to be obtained prior to works commencing on the site.*~~

ATTACHMENT 5

RELEVANT AUP OBJECTIVES AND POLICIES

Attachment 5: Relevant AUP objectives and policies

Chapter B Regional Policy Statement

Chapter B2 Urban growth and form

B2.2. Urban growth and form

B2.2.1. Objectives

(1) A quality compact urban form that enables all of the following:

- (a) a higher-quality urban environment;
- (b) greater productivity and economic growth;
- (c) better use of existing infrastructure and efficient provision of new infrastructure;
- (d) improved and more effective public transport;
- (e) greater social and cultural vitality;
- (f) better maintenance of rural character and rural productivity; and
- (g) reduced adverse environmental effects.

(5) The development of land within the Rural Urban Boundary, towns, and rural and coastal towns and villages is integrated with the provision of appropriate infrastructure.

B2.4. Residential growth

B2.4.2. Policies

Residential intensification

(6) Ensure development is adequately serviced by existing infrastructure or is provided with infrastructure prior to or at the same time as residential intensification.

Chapter B3 Infrastructure, transport and energy

B3.2. Infrastructure

B3.2.1. Objectives

(1) Infrastructure is resilient, efficient and effective.

(2) The benefits of infrastructure are recognised, including:

- (a) providing essential services for the functioning of communities, businesses and industries within and beyond Auckland;
- (b) enabling economic growth;
- (c) contributing to the economy of Auckland and New Zealand;
- (d) providing for public health, safety and the well-being of people and communities;
- (e) protecting the quality of the natural environment; and

(f) enabling interaction and communication, including national and international links for trade and tourism.

(3) Development, operation, maintenance, and upgrading of infrastructure is enabled, while managing adverse effects on:

(a) the quality of the environment and, in particular, natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character;

(b) the health and safety of communities and amenity values.

(4) The functional and operational needs of infrastructure are recognised.

(5) Infrastructure planning and land use planning are integrated to service growth efficiently.

(6) Infrastructure is protected from reverse sensitivity effects caused by incompatible subdivision, use and development.

(8) The adverse effects of infrastructure are avoided, remedied or mitigated.

B3.2.2. Policies

Provision of infrastructure

(1) Enable the efficient development, operation, maintenance and upgrading of infrastructure.

(2) Recognise the value of investment in existing infrastructure.

(3) Provide for the locational requirements of infrastructure by recognising that it can have a functional or operational need to be located in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character.

Reverse sensitivity

(4) Avoid where practicable, or otherwise remedy or mitigate, adverse effects of subdivision, use and development on infrastructure.

(5) Ensure subdivision, use and development do not occur in a location or form that constrains the development, operation, maintenance and upgrading of existing and planned infrastructure. Managing adverse effects

Managing adverse effects

(8) Avoid, remedy or mitigate the adverse effects from the construction, operation, maintenance or repair of infrastructure

Chapter B6 Mana Whenua

B6.3. Recognising Mana Whenua values

B6.3.1. Objectives

(1) Mana Whenua values, mātauranga and tikanga are properly reflected and accorded sufficient weight in resource management decision-making.

B6.3.2. Policies

(3) Ensure that any assessment of environmental effects for an activity that may affect Mana Whenua values includes an appropriate assessment of adverse effects on those values.

Chapter B7 Natural resources

B7.3. Freshwater systems

B7.3.1. Objectives

(3) The adverse effects of changes in land use on freshwater are avoided, remedied or mitigated.

B7.3.2. Policies

Integrated management of land use and freshwater systems

(1) Integrate the management of subdivision, use and development and freshwater systems by undertaking all of the following: ...

- (c) controlling the use of land and discharges to minimise the adverse effects of runoff on freshwater systems and progressively reduce existing adverse effects where those systems or water are degraded; and

B7.4. Coastal water, freshwater and geothermal water

B7.4.1 Objectives

(4) The adverse effects of point and non-point discharges, in particular stormwater runoff and wastewater discharges, on coastal waters, freshwater and geothermal water are minimised and existing adverse effects are progressively reduced.

B7.4.2 Policy

Sediment runoff

(8) Minimise the loss of sediment from subdivision, use and development, and manage the discharge of sediment into freshwater and coastal water, by:

- (a) promoting the use of soil conservation and management measures to retain soil and sediment on land; and
- (b) requiring land disturbing activities to use industry best practice and standards appropriate to the nature and scale of the land disturbing activity and the sensitivity of the receiving environment.

Stormwater management

(9) Manage stormwater by all of the following:

- (a) requiring subdivision, use and development to:
 - (i) minimise the generation and discharge of contaminants; and
 - (ii) minimise adverse effects on freshwater and coastal water and the capacity of the stormwater network;
- (b) adopting the best practicable option for every stormwater diversion and

discharge; and

(c) controlling the diversion and discharge of stormwater outside of areas serviced by a public stormwater network.

Chapter B9 Rural Environment

B9.2. Rural activities

B9.2.1. Objectives

(2) Areas of land containing elite soil are protected for the purpose of food supply from inappropriate subdivision, urban use and development.

(3) Rural production and other activities that support rural communities are enabled while the character, amenity, landscape and biodiversity values of rural areas, including within the coastal environment, are maintained.

(4) Auckland's rural areas outside the Rural Urban Boundary and rural and coastal towns and villages are protected from inappropriate subdivision, urban use and development.

B9.2.2. Policies

(1) Enable a diverse range of activities while avoiding significant adverse effects on and urbanisation of rural areas, including within the coastal environment, and avoiding, remedying, or mitigating other adverse effects on rural character, amenity, landscape and biodiversity values.

(2) Minimise the potential for reverse sensitivity effects by:

(a) preventing sensitive activities (such as countryside living) from establishing in areas where rural production activities could be adversely affected; or

(b) requiring sensitive activities (such as new countryside living) to adopt onsite methods to avoid reverse sensitivity effects on rural production activities; and ...

B9.3. Land with high productive potential

B9.3.1 Objectives

(2) Land containing prime soil is managed to enable its capability, flexibility and accessibility for primary production.

(3) The productive potential of land that does not contain elite or prime soil is recognised.

B9.4. Rural subdivision

B9.4.2. Policies

(2) Enable subdivision for the following purposes:

(b) the establishment and operation of infrastructure;

Chapter B10 Environmental Risk

B10.2 Natural Hazards and climate change

B10.2.2. Policies

Infrastructure

(12) Minimise the risks from natural hazards to new infrastructure which functions as a lifeline utility by:

- (b) utilising design, location and network diversification to minimise the adverse effects on infrastructure and to minimise the adverse effects on the community from the failure of that infrastructure.

B10.3. Land – hazardous substances

B10.3.1. Objectives

- (1) The environment is protected from adverse effects associated with the storage, use, disposal and transport of hazardous substances.
- (2) The storage, use, disposal and transport of hazardous substances are provided for and the social and economic benefits of these activities are recognised.

B10.3.2 Policies

- (1) Manage the use and development of land for hazardous facilities and industrial or trade activities to avoid adverse effects on human health and the environment and remedy or mitigate these effects where they cannot be avoided.
- (2) Manage the use and development of land for hazardous facilities:
 - (a) so that such facilities are resilient to the effects of natural hazards;
 - (b) to avoid, remedy or mitigate adverse effects on people and property;
 - (c) to avoid as far as practicable the contamination of air, land, and water; and
 - (d) to minimise risks caused by natural hazards.
- (3) Manage the effects associated with use and development of land for hazardous facilities by all of the following:
 - (b) ensuring new hazardous facilities are not located near sensitive activities unless significant adverse effects, including cumulative effects, are avoided and other adverse effects are mitigated; and

B1.4. Land – contaminated

B10.4.1 Objective

(1) Human health and the quality of air, land and water resources are protected by the identification, management and remediation of land that is contaminated.

B10.4.2 Policies

- (1) Identify land that is or may be contaminated based on:
 - (a) sites known to have supported contaminating land use activities in the past;
 - (b) sites with a significant potential risk to human health; or
 - (c) sites having significant adverse effects on the environment.

- (3) Manage or remediate land that is contaminated where:
- (a) the level of contamination renders the land unsuitable for its existing or proposed use;
or
 - (b) the discharge of contaminants from the land is generating or is likely to generate significant adverse effects on the environment; or
 - (c) development or subdivision of land is proposed.

Chapter E Auckland-wide

Chapter E1 Water quality and integrated management and Chapter E8 Stormwater – Discharge and diversion

E1.3. Policies

Stormwater management

- (11) Avoid as far as practicable, or otherwise minimise or mitigate adverse effects of stormwater diversions and discharges, having particular regard to:
- (a) the nature, quality, volume and peak flow of the stormwater runoff;
 - (b) the sensitivity of freshwater systems and coastal waters, including the Hauraki Gulf Marine Park;
 - (c) the potential for the diversion and discharge to create or exacerbate flood risks;
 - (d) options to manage stormwater on-site or the use of communal stormwater management measures;
 - (e) practical limitations in respect of the measures that can be applied; and
 - (f) the current state of receiving environments.
- (13) Require stormwater quality or flow management to be achieved on-site unless there is a downstream communal device or facility designed to cater for the site's stormwater runoff.

Chapter E11 Land disturbance – Regional

E11.2 Objectives

- (1) Land disturbance is undertaken in a manner that protects the safety of people and avoids, remedies and mitigates adverse effects on the environment.
- (2) Sediment generation from land disturbance is minimised.
- (3) seek to manage land disturbance in a manner that protects the safety of people and avoids, remedies or mitigates adverse effects on the environment, minimises the generation of sediment and achieves soil conservation.

E11.3 Policies

- (2) Manage land disturbance to:

- (a) retain soil and sediment on the land by the use of best practicable options for sediment and erosion control appropriate to the nature and scale of the activity;
 - (b) manage the amount of land being disturbed at any one time, particularly where the soil type, topography and location is likely to result in increased sediment runoff or discharge;
 - (c) avoid, remedy and mitigate adverse effects on accidentally discovered sensitive material; and
 - (d) maintain the cultural and spiritual values of Mana Whenua in terms of land and water quality, preservation of wāhi tapu, and kaimoana gathering.
- (3) Manage the impact on Mana Whenua cultural heritage that is discovered undertaking land disturbance by:
- (a) requiring a protocol for the accidental discovery of kōiwi, archaeology and artefacts of Māori origin;
 - (b) undertaking appropriate actions in accordance with mātauranga and tikanga Māori; and
 - (c) undertaking appropriate measures to avoid adverse effects. Where adverse effects cannot be avoided, effects are remedied or mitigated
- (4) Enable land disturbance necessary for a range of activities undertaken to provide for people and communities social, economic and cultural well-being, and their health and safety.
- (5) Design and implement earthworks with recognition of existing environmental site constraints and opportunities, specific engineering requirements, and implementation of integrated water principles.
- (6) Require that earthworks are designed and undertaken in a manner that ensures the stability and safety of surrounding land, buildings and structures.

Chapter E12. Land disturbance – District

E12.2 Objectives

- (1) Land disturbance is undertaken in a manner that protects the safety of people and avoids, remedies or mitigates adverse effects on the environment.

E12.3. Policies

- (2) Manage the amount of land being disturbed at any one time, to:
 - (a) avoid, remedy or mitigate adverse construction noise, vibration, odour, dust, lighting and traffic effects;
 - (b) avoid, remedy or mitigate adverse effects on accidentally discovered sensitive material; and
 - (c) maintain the cultural and spiritual values of Mana Whenua in terms of land and water quality, preservation of wāhi tapu, and kaimoana gathering.

(3) Enable land disturbance necessary for a range of activities undertaken to provide for people and communities social, economic and cultural well-being, and their health and safety.

(4) Manage the impact on Mana Whenua cultural heritage that is discovered undertaking land disturbance by:

(a) requiring a protocol for the accidental discovery of kōiwi, archaeology and artefacts of Māori origin;

(b) undertaking appropriate actions in accordance with mātauranga and tikanga Māori; and

(c) undertaking appropriate measures to avoid adverse effects, or where adverse effects cannot be avoided, effects are remedied or mitigated.

(5) Design and implement earthworks with recognition of existing environmental site constraints and opportunities, specific engineering requirements, and implementation of integrated water principles.

(6) Require that earthworks are designed and undertaken in a manner that ensures the stability and safety of surrounding land, buildings and structures.

Chapter E24 Lighting

E24.2 Objectives

(1) Artificial lighting enables outdoor activities and the security and safety of people and property.

(2) The adverse effects of outdoor lighting on the environment and safety of road users are limited.

E24.3 Policies

(2) Control the intensity, location and direction of artificial lighting to avoid significant glare and light spill onto adjacent sites, maintain safety for road users and minimise the loss of night sky viewing.

Chapter E25 Noise and vibration

E25.2 Objectives

(1) People are protected from unreasonable levels of noise and vibration.

(3) Existing and authorised activities and infrastructure, which by their nature produce high levels of noise, are appropriately protected from reverse sensitivity effects where it is reasonable to do so.

(4) Construction activities that cannot meet noise and vibration standards are enabled while controlling duration, frequency and timing to manage adverse effects.

E25.3 Policies

(1) Set appropriate noise and vibration standards to reflect each zone's function and permitted activities, while ensuring that the potential adverse effects of noise and vibration are avoided, remedied or mitigated.

(2) Minimise, where practicable, noise and vibration at its source or on the site from which it is generated to mitigate adverse effects on adjacent sites.

(3) Encourage activities to locate in zones where the noise generated is compatible with other activities and, where practicable, adjacent zones.

Noise arising from or affecting rural zones

(9) Avoid, remedy or mitigate the adverse effects of noise in the rural environment, having regard to the working nature of this environment.

Construction, demolition and maintenance activities

(10) Avoid, remedy or mitigate the adverse effects of noise and vibration from construction, maintenance and demolition activities while having regard to:

- (a) the sensitivity of the receiving environment; and
- (b) the proposed duration and hours of operation of the activity; and
- (c) the practicability of complying with permitted noise and vibration standards.

Chapter E26 Infrastructure

E26.2. Network utilities and electricity generation – All zones and roads

E26.2.1. Objectives

- (1) The benefits of infrastructure are recognised.
- (2) The value of investment in infrastructure is recognised.
- (3) Safe, efficient and secure infrastructure is enabled, to service the needs of existing and authorised proposed subdivision, use and development.
- (4) Development, operation, maintenance, repair, replacement, renewal, upgrading and removal of infrastructure is enabled.
- (5) The resilience of infrastructure is improved and continuity of service is enabled.
- (6) Infrastructure is appropriately protected from incompatible subdivision, use and development, and reverse sensitivity effects.
- (9) The adverse effects of infrastructure are avoided, remedied or mitigated.

E26.2.2. Policies

- (1) Recognise the social, economic, cultural and environmental benefits that infrastructure provides, including:
 - (a) enabling enhancement of the quality of life and standard of living for people and communities;
 - (b) providing for public health and safety;
 - (c) enabling the functioning of businesses;
 - (d) enabling economic growth;
 - (e) enabling growth and development;

- (f) protecting and enhancing the environment;
 - (g) enabling the transportation of freight, goods, people; and
 - (h) enabling interaction and communication.
- (2) Provide for the development, operation, maintenance, repair, upgrade and removal of infrastructure throughout Auckland by recognising:
- (a) functional and operational needs;
 - (b) location, route and design needs and constraints;
 - (c) the complexity and interconnectedness of infrastructure services;
 - (d) the benefits of infrastructure to communities within Auckland and beyond;
 - (e) the need to quickly restore disrupted services; and
 - (f) its role in servicing existing, consented and planned development. Adverse effects on infrastructure.
- (3) Avoid where practicable, or otherwise remedy or mitigate adverse effects on infrastructure from subdivision, use and development, including reverse sensitivity effects, which may compromise the operation and capacity of existing, consented and planned infrastructure. Adverse effects of infrastructure
- (4) Require the development, operation, maintenance, repair, upgrading and removal of infrastructure to avoid, remedy or mitigate adverse effects, including, on the:
- (a) health, well-being and safety of people and communities, including nuisance from noise, vibration, dust and odour emissions and light spill;
 - (b) safe and efficient operation of other infrastructure;
 - (c) amenity values of the streetscape and adjoining properties;
 - (d) environment from temporary and ongoing discharges; and
 - (e) values for which a site has been scheduled or incorporated in an overlay.
- (5) Consider the following matters when assessing the effects of infrastructure:
- (a) the degree to which the environment has already been modified;
 - (b) the nature, duration, timing and frequency of the adverse effects;
 - (c) the impact on the network and levels of service if the work is not undertaken;
 - (d) the need for the infrastructure in the context of the wider network; and
 - (e) the benefits provided by the infrastructure to the communities within Auckland and beyond.

Chapter E30 Contaminated Land

E30.2 Objective

(1) The discharge of contaminants from contaminated land into air, or into water, or onto or into land are managed to protect the environment and human health and to enable land to be used for suitable activities now and in the future.

E30.3 Policies

(1) Identify and record the details of land containing elevated levels of contaminants in a public register.

(2) Require any use or development of land containing elevated levels of contaminants resulting in discharges to air, land or water to manage or remediate the contamination to a level that:

(a) allows contaminants to remain in the ground/groundwater, where it can be demonstrated that the level of residual contamination is not reasonably likely to pose a significant adverse effect on human health or the environment; and

(b) avoids adverse effects on potable water supplies; and

(c) avoids, remedies or mitigates significant adverse effects on ecological values, water quality, human health and amenity values; while taking into account all of the following:

(d) the physical constraints of the site and operational practicalities;

(e) the financial implications of the investigation, remediation, management and monitoring options;

(f) the use of best practice contaminated land management, including the preparation and consideration of preliminary and detailed site investigations, remedial action plans, site validation reports and site management plans for the identification, monitoring and remediation of contaminated land; and

(g) whether adequate measures are in place for the transport, disposal and tracking of contaminated soil and other contaminated material removed from a site to prevent adverse effects on the environment.

Chapter E31 Hazardous substances

E31.2 Objectives

(1) The risks of hazardous facilities to people, property and the environment are minimised to acceptable levels while recognising the benefits of these facilities

E31.3 Policies

(1) Manage hazardous substances by:

(a) locating, designing, constructing and managing hazardous facilities to avoid or adequately mitigate adverse effects, including risks, to people, property and the environment;

(2) Require adequate separation distances between hazardous facilities and activities sensitive to hazardous facilities to avoid or adequately mitigate risk to people and property and to avoid reverse sensitivity effects.

Chapter H Zones

Chapter H19 Rural zones

H19.2 Objectives and policies – all rural zones

H19.2.1. Objectives – general rural

(1) Rural areas are where people work, live and recreate and where a range of activities and services are enabled to support these functions.

(3) Elite soil is protected, and prime soil is managed, for potential rural production.

H19.2.2. Policies – general rural

(2) Require rural production activities to contain and manage their adverse environmental effects on-site to the fullest extent practicable.

(3) Enable rural production activities on elite and prime soil and avoid land-use activities and development not based on, or related to, rural production from locating on elite soil and avoid where practicable such activities and development from locating on prime soil.

(4) Enable and maintain the productive potential of land that is not elite or prime soil but which has productive potential for rural production purposes, and avoid its use for other activities including rural lifestyle living except where these are provided for or enabled by Policy H19.2.2(5).

(5) Enable a range of rural production activities and a limited range of other activities in rural areas by:

(a) separating potentially incompatible activities such as rural production and rural lifestyle living into different zones;

(b) avoiding or restricting rural subdivision for activities not associated with rural production in areas other than those subdivision provided for in [E39 Subdivision – Rural](#);

(c) managing the effects of activities in rural areas so that;

(i) essential infrastructure can be funded, coordinated and provided in a timely, integrated, efficient and appropriate manner; and

(ii) reverse sensitivity effects do not constrain rural production activities.

(d) acknowledging that, in some circumstances, the effective operation, maintenance, upgrading and development of infrastructure may place constraints on productive land and other rural activities; or

(e) providing for tourism and activities related to the rural environment.

(6) Recognise that a range of buildings and structures accessory to farming and forestry, and other operational structures for rural production activities are an integral part of rural character and amenity values.

H19.2.3. Objectives – rural character, amenity and biodiversity values

(1) The character, amenity values and biodiversity values of rural areas are maintained or enhanced while accommodating the localised character of different parts of these areas and the dynamic nature of rural production activities.

H19.2.4. Policies – rural character, amenity and biodiversity values

(1) Manage the effects of rural activities to achieve a character, scale, intensity and location that is in keeping with rural character, amenity and biodiversity values, including recognising the following characteristics:

- (a) a predominantly working rural environment;
- (b) fewer buildings of an urban scale, nature and design, other than residential buildings and buildings accessory to farming; and
- (c) a general absence of infrastructure which is of an urban type and scale.

(2) Recognise the following are typical features of the Rural – Rural Production Zone, Rural – Mixed Rural Zone and Rural – Rural Coastal Zone and will generally not give rise to issues of reverse sensitivity in these zones:

- (a) the presence of large numbers of farmed animals and extensive areas of plant, vine or fruit crops, plantation forests and farm forests;
- (b) noise, odour, dust, traffic and visual effects associated with use of the land for farming, horticulture, forestry, mineral extraction and cleanfills;
- (c) the presence of existing mineral extraction activities on sites zoned as Special Purpose – Quarry Zone;
- (d) accessory buildings dot the landscape, particularly where farming activities are the dominant activity; and
- (e) activities which provide for the relationship of Mana Whenua to their ancestral land and taonga.

H19.2.5. Objectives – rural industries, rural commercial services and non-residential activities

(3) The rural economy and the well-being of people and local communities are maintained or enhanced by social, cultural and economic non-residential activities, while the area’s rural character and amenity is maintained or enhanced.

(4) Industries, services and non-residential activities of an urban type and scale unrelated to rural production activities are not located in rural zones.

H19.2.6. Policies – rural industries, rural commercial services and non-residential activities

(2) Manage rural industries, rural commercial services and other non-residential activities to:

- (a) avoid creating reverse sensitivity effects;
- (b) contain and manage adverse effects on-site; and
- (c) avoid, remedy or mitigate adverse effects on traffic movement and the road network.

H19.4 Rural – Mixed Rural Zone

H19.4.2. Objectives

(1) The existing subdivision pattern is used by a range of rural production activities and non-residential activities that support them.

(2) The continuation of rural production and associated non-residential activities in the zone is not adversely affected by inappropriate rural lifestyle activity.

(3) Rural character and amenity values of the zone are maintained while anticipating a mix of rural production, non-residential and rural lifestyle activities.

H19.4.3. Policies

1) Enable rural production, rural industries and rural commercial services that are compatible with the existing subdivision pattern and recognise that these activities are significant elements of, and primary contributors to, rural character and amenity values.

(2) Manage reverse sensitivity effects by:

- (a) limiting the size, scale and type of non-rural production activities;
- (b) retaining the larger site sizes within this zone;
- (c) limiting further subdivision for new rural lifestyle sites; and
- (d) acknowledging a level of amenity that reflects the presence of:
 - (i) rural production and processing activities that generate rural odours, noise from stock and the use of machinery, and the movement of commercial vehicles on the local road network; and
 - (ii) non-residential activities which may generate noise, light and traffic levels greater than those normally found in areas set aside for rural lifestyle activities.