

UNITARY PLAN UPDATE REQUEST MEMORANDUM

TO Celia Davison

FROM Sanjay Bangs

DATE 13 May 2019

SUBJECT



This memorandum requests an update to Auckland Unitary Plan Operative in part

Reason for update: A decision has been made to confirm a requirement for an alteration to a designation under sections 172(1) and 181(2) of the RMA. Pursuant to section 175(2) of the RMA, Council as the territorial authority must, as soon as practicable and without using Schedule 1, include the designation in its district plan.	
Chapter	Chapter K Designations
Section	Schedules and Designations – Transpower New Zealand Limited
Designation only	
Designation #8521	Drury Switching Station
Location:	261 Quarry Road, Drury
Lapse Date	Given effect to (i.e. no lapse date)
Type of Designation	Existing
Purpose	Electricity transmission - the construction, operation, maintenance, replacement, renewal and upgrading of a 220kV switchyard, transmission lines, and ancillary facilities.
Changes to text (shown in underline and strikethrough)	<i>Amend the designation title, purpose and conditions as outlined in Section 7.0 Conditions of Attachment 2 to this memo.</i>
Changes to diagrams	<i>No changes</i>
Changes to spatial data	<i>No changes.</i>
Attachments	<i>Attachment 1: Transpower New Zealand Limited decision Attachment 2: Auckland Council recommendation report</i>

Prepared by:Sanjay Bangs
Planner, Plans & Places**Signature:****Text entered by:**Teuila Young
Planning Technician**Signature:**



Maps prepared by:

NA

Reviewed by:

Sanjay Bangs
Planner, Plans & Places

Signature:



Manager

Celia Davison
Manager Planning - Central and South

Signature:



Team Leader

Craig Cairncross
Team Leader Planning Central and South

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10 May 2019

Planning Central/South, Plans and Places
Auckland City Council
Private Bag 92300
Victoria Street West
Auckland 1142

Attention: Sanjay Bangs

Dear Sanjay

Decision by Transpower New Zealand Limited (Requiring Authority) pursuant to section 172 of the Resource Management Act 1991 to alter Designation 8521 Drury Switching Station to a Substation

I refer to the Recommendation of the Auckland Council (received by email on 18th April 2019) that the alteration to designation 8521 submitted by Transpower New Zealand Limited (Transpower) be confirmed in the Auckland Unitary Plan (Operative in Part) pursuant to section 181(2) of the Resource Management Act 1991.

The amendments to the designation notation and the designation conditions are set out in section 7.0 of the Council's recommendation.

In accordance with section 172(1) of the Resource Management Act 1991, Transpower accepts the Auckland Council's recommendation in full.

If you have any queries about the decision, please contact Louise Miles on 04 5907461 or louise.miles@transpower.co.nz.

Yours sincerely
TRANSPOWER NEW ZEALAND LIMITED

A handwritten signature in black ink, appearing to read "Dan Hamilton".

Dan Hamilton
Environmental Regulatory Team Leader

Report Name: Alteration to Designation 8521 Drury Switching Station at 261 Quarry Road, Drury under s168 and s181 of the Resource Management Act 1991 under the Auckland Unitary Plan (Operative in Part)

File No.: UP MODIFICATIONS\DESIGNATIONS\8521DrurySwitchingStation

Executive Summary

Transpower New Zealand Limited (**Transpower**) as a requiring authority has served notice on Auckland Council pursuant to Section 168 and 181 of the Resource Management Act 1991 (**RMA**) to alter Designation 8521 Drury Switching Station at 261 Quarry Road, Drury. The purpose of the alteration is to enable the existing switching station facility to operate as a substation to provide lower voltage supply to electricity customers. To enable this, an alteration to the designation purpose and conditions is required.

Pursuant to section 181(2) of the RMA, it is recommended that Council agrees that Designation 8521 in the Auckland Unitary Plan (Operative in Part) (**AUP**) be altered to amend the title, purpose and conditions as outlined in this report.

Once the s181(2) request for to alter Designation 8521 is accepted by Council, the Auckland Unitary Plan (Operative in Part) can be amended accordingly.

Recommendation

- a) **That the amendment to Designation 8521 submitted by Transpower New Zealand Limited be confirmed in the Auckland Unitary Plan (Operative in Part) pursuant to Section 181(2) of the RMA, subject to the conditions outlined in Section 7.0 of this report.**
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NOTICE OF REQUIREMENT TO THE AUCKLAND UNITARY PLAN (OPERATIVE IN PART)

1.0 REFERENCES

Requiring Authority:	Transpower New Zealand Limited
Notice of Requirement:	Alteration of Designation 8521 to enable the development of substation facilities within the designation.
Site Involved:	261 Quarry Road, Drury
Owners:	Transpower New Zealand Limited
Legal Description:	Pt Lot 1 DP 62333, Pt Lot 2 DP 62333
Zoning:	Business – Light Industry Zone
Locality Plan:	



2.0 SITE DESCRIPTION

The subject site at 261 Quarry Road, Drury is approximately 8.46ha in area and is located adjacent to State Highway 1 in the Drury South area. The site contains a switching station, containing various structures including gantries, buses, circuit breakers and a small control building, located within a fenced compound. The balance of the site is grassed, with a stormwater treatment pond located west of the switching station compound, and landscaping located on the site perimeter.

Under the AUP, the site is zoned Business – Light Industry and is subject to the following overlays, controls and designations:

- Precinct: Drury South Industrial Precinct – sub-precinct B
- Controls: Macroinvertebrate Community Index – Rural
- Overlays: High-Use Aquifer Management Area – Drury Sand Aquifer
- Overlays: High-Use Aquifer Management Area – Bombay Drury Kaawa Aquifer
- Overlays: Quality Sensitive Aquifer Management Area – Drury Sand Aquifer
- Designation: 8521 Transpower New Zealand Limited, *Electricity transmission – the construction, operation, maintenance, replacement, renewal and upgrading of a 220kV switchyard, transmission lines, and ancillary facilities.*

The wider area currently comprises rural living lots and pastoral farm land. In addition, the area is defined by SH1 immediately west of the site, and the national electricity transmission network. However, much of the surrounds is zoned for urban or future urban development, including light industrial and residential zonings, and the Drury Future Urban Zone to the west of SH1.

In terms of the immediate surrounds, the nearest dwelling is located on land directly north of the switching station at 241 Quarry Road, which is separated from the subject site by an unformed round. The remainder of boundaries are either defined by local roads (south and east), or SH1. The nearest residential zoned site is located approximately 110m to the east of the Transpower site.

The site is subject to a stormwater discharge permit.

3.0 DESCRIPTION OF PROPOSAL

Transpower seek to alter Designation 8521 to enable the development of substation facilities within the designation extent. The site currently operates as a switching station at 261 Quarry Road, Drury, providing a connection point between sections of the high-voltage transmission network. Currently, the facility does not act as a substation, as it does not include power transformers that can step down the electrical voltage to enable use by local electricity customers at lower voltages.

Local electricity customers KiwiRail and Counties Power have requested that Transpower provide for a grid exit point to provide for their electricity needs. KiwiRail seek an additional supply point for its electrified rail system, to provide better security of electricity supply when the other substations it relies on experience a fault, or are under maintenance. Counties Power seek an exit point to service future urban growth within the Drury area.

In order to facilitate local electricity needs through a substation facility, Transpower needs to change the purpose and conditions of its existing designation to enable the necessary works to occur. Specifically, Transpower seek make the following alterations:

- Amend the designation title and purpose to provide for a substation, instead of a switching station;
- Amend conditions to reflect a revised landscaping plan, with changes to previous plant species selections that did not perform well in the local conditions;

- Amend conditions related to operation noise of the facilities, to reflect that since the site was originally designated, the site and some surrounding sites have been rezoned from a rural to an industrial zoning, and therefore higher noise levels are permitted within the AUP;

No regional resource consents have been sought as part of Transpower's application. Transpower note that a variation to stormwater discharge permit will be required for the expansion of impervious areas to accommodate the proposed facilities. This will be sought at the time an Outline Plan of Works is submitted, once a detailed design of the facilities is known.

4.0 ASSESSMENT OF NOTICE OF REQUIREMENT PURSUANT TO SECTION 181(2) OF THE RESOURCE MANAGEMENT ACT 1991

4.1 Sections 168 to 179 and 198AA to 198AD of the Resource Management Act 1991

Pursuant to section 181(2) of the RMA, sections 168 to 179 and 198AA to 198AD shall, with all necessary modifications, apply to a requirement referred to in subsection (1) as if it were a requirement for a new designation.

Accordingly, an assessment on notification has been made in accordance with section 169 and sections s149ZCB(1) to (4), 149ZCC(1) to (4), 149ZCE, and 149ZCF of the Act. This was the subject of a separate report that concluded that the NoR could be processed on a non-notified basis. This report is an assessment in accordance with sections 181(2) and 171 for Council to make a recommendation to the Requiring Authority.

Section 171(1) of the Act states the following:

When considering a requirement, a territorial authority must subject to Part 2, consider the effects on the environment of allowing the requirement, having particular regard to the following:

(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.

4.2 Section 171(1) – Assessment of Effects

Anticipated actual and potential adverse effects on the environment primarily relate to landscape and visual effects, noise and construction traffic. Transpower propose to manage these effects through the conditions as proposed to be amended, as described below in relation to the relevant effects. Positive effects will result from the proposed works.

4.2.1 Positive Effects

The positive effects are outlined in Section 6.8 of the AEE, which outlines The project will have significant social and economic benefits by providing a National Grid exit point for KiwiRail's electrified rail network in Auckland improving the security of supply, and the Countries Power distribution network to serve urbanisation in the Drury south and surrounding area. I agree with this assessment.

4.2.2 Landscape and visual effects

The existing switching station includes a large fenced compound containing equipment such as gantries, buses and circuit breakers. The majority of existing structures are around 9m in height, with the exception of the gantries which measure 20m in height. The application notes that the gantries are finer structures with lower visual density, whilst the remainder of structures lower in height create the most visually dense part of the switchyard.

The surrounding landscape is characterised by the foothills of the Hunua Ranges and the alluvial flat lands of the Drury Basin. This landscape includes cultivated farmland used for grazing, scattered small settlements and villages, and strong linear features of the State Highway 1 corridor and national electricity transmission lines. Under the AUP(OP), a mixture of industrial and residential activities are anticipated in the immediate surrounds, whilst beyond SH1 to the west of the site, large areas are zoned for Future Urban uses following the completion of structure planning processes.

The alteration to the designation will provide for the addition of transformers and associated structures on the site. Transpower's initial works include locating a transformer structure on the site to provide for lower voltage electricity to KiwiRail. This is anticipated to measure 7.5m in height with a footprint of approximately 12m x 7.5m, and will be connected by extending an existing electricity bus. Other ancillary structures such as circuit breakers will also need to be installed. Over time, Transpower may be required to install additional transformers on the site.

The existing designation conditions require the implementation of a landscaping plan prepared by Boffa Miskell in 2008. This planting was carried out in November 2009, and has exhibited mixed performance. In addition, some planting required by the conditions has not been implemented. Therefore, the applicant has proposed additional vegetation planting including Leyland cypress at the northern boundary and a mix of native plants and Leyland cypress at the southern boundary¹.

¹ Refer Drg A18112_006 of Appendix 2 to the *Landscaping Plan and Assessment*

The applicant considers that the effects on landscape and visual amenity will be very low. The application notes that given the existing structures on the site and the surrounds (including SH1 and transmission lines), the general appearance of the facility will remain very similar following the proposed works. Given the zoning of the surrounding area, the landscape is expected to change, and as such the proposed structures will assimilate with the future industrial buildings and structures anticipated within the surrounds.

The application has been reviewed by Mr Rob Pryor (LA4 Landscape Architects Ltd). Mr Pryor generally agrees with the methodology, factual statements and conclusions presented in the application material, and notes specifically that:

- The methodology employed in the Landscaping Plan and Assessment is an accepted practice when undertaking an assessment of landscape and visual effects.
- The area is not high in amenity values and is characterised by transmission towers and gantries of various heights and configurations;
- Transformers up to 7.5m in height and associated infrastructure would increase the intensity of development and potential visibility of elements; and
- The *Proposed Vegetation Management Plan* has been prepared to manage the existing and proposed vegetation on an ongoing basis to ensure a good level of mitigation is maintained from off-site viewing locations.

I agree with Mr Pryor's assessment, and that put forward in Transpower's application. I consider that the additional built elements provided for by the alteration are unlikely to substantially change the appearance of the facilities as seen from particular vantage points, or within the wider landscape. In addition, I note that structures with a similar scale of visual effects, such as gantries, buses and circuit breakers, can be developed on the site under the existing designation. In this context, the visual effects associated with enabling substation structures will be minimal. Therefore, I am satisfied that the landscape and visual effects associated with the Notice will be no more than minor.

4.2.3 Noise effects

Transpower seek to amend Conditions 10 and 11 to the designation which relate to operational noise. These conditions currently reflect the previous rural zoning of the site. Given the site is now zoned Business – Light Industry, Transpower seek to align the operational noise conditions with those of the underlying zoning as set out in Chapter E25 Noise and vibration of the AUP.

The *Noise Assessment* submitted by the applicant assesses the likely noise on the nearest receiving dwellings as ranging from 10 – 25 dB L_{Aeq} , with the maximum noise predicted (25 dB L_{Aeq}) measured at the boundary with 241 Quarry Road. Overall, the predicted levels indicate future site activities are likely to generate no more than 35 dB L_{Aeq} , and are therefore likely to comply with the proposed conditions as amended by this application.

Construction noise effects are addressed by the existing Condition 14, which requires all construction activity to be undertaken in accordance with the noise standards set out in NZS 6803:1999. This condition is proposed to be retained without amendment.

The application has been reviewed by Andrew Gordon, Specialist, Contamination, Air & Noise Team. Mr Gordon makes the following conclusions in relation to operational noise provided for by the proposed alteration:

- The proposed noise standards in Condition 10, as amended, provide a very good level of protection for noise sensitive receivers;
- Noise predictions are based on a sound methodology, using recognised noise modelling software and adopting a worst case scenario involving up to four transformers and associated equipment installed; and
- Noise from the proposal is likely to be inaudible at existing and future noise sensitive receiver locations given the measured background levels.

I agree with Mr Gordon's conclusions, and therefore consider that the effects of the proposal in relation to noise will be no more than minor

4.2.4 Traffic effects

Traffic effects are likely to be generated primarily during the construction of the facilities. the AEE notes that work may be undertaken progressively over a number of stages spanning several years, and may involve some earthworks to create level building platforms, trucks delivering equipment and mobile cranes to erect/place substation infrastructure. The site access from Harrison Road is considered suitable for construction traffic to use, and given the Light Industry zoning and adjacent motorway corridor, the area is not considered to be particularly sensitive to construction effects.

The operational traffic generated by the proposal is comprises visits to the site for maintenance and inspection reasons, and therefore the such traffic movements are considered to be minimal. Traffic is anticipated to be easily accommodated via the existing access from Harrison Road, and through car parking provided on the site.

Overall, I am satisfied that the traffic effects associated with the proposal will be no more than minor.

4.2.5 Cultural heritage effects

Transpower note that there are no recorded archaeological sites of significance recorded over the site, and that the site is not identified as Waahi Tapu in the AUP. In addition, Transpower have consulted with eight Mana Whenua groups understood to have an interest in the project, and have undertaken on-site meetings with the representatives of Ngāti Tamaoho, Ngāti Te Ata and Ngāi Tai ki Tāmaki, and an off-site meeting with Ngāti Whanaunga. The issues raised by Mana Whenua related the use of native planting in landscaping, disturbance of contaminated soils, and future changes to stormwater management.

In response, Transpower notes that they have taken account of the preference of planting of native trees in future landscaping in its updated landscaping plan, whilst other matters can be appropriately addressed as part of any future outline plan and/or regional stormwater consent when future upgrade works are undertaken.

I agree that the site is absent of identified Mana Whenua values or items of archaeological significance, and that Transpower have consulted with the appropriate iwi groups. I am satisfied that the concerns raised by iwi have been addressed where appropriate by the alteration, particularly in

relation to native planting which is reflected in the revised landscaping plan submitted alongside the application. Therefore, I am satisfied that the effects on cultural heritage and Mana Whenua values will be no more than minor.

4.2.6 Electric and magnetic fields effects

Transpower note that Condition 2 requiring compliance with the relevant international guidelines for electricity transmission² will be retained as part of the alteration. Any new substation equipment will therefore be subject to the same restrictions as the existing switching station

The existing Condition 2 of Designation 8521 is a standard condition applied to Transpower's electricity transmission designations across Auckland, and therefore will continue to be appropriate once substation facilities are established on the site. Therefore, I am satisfied that the effects associated with electricity transmission will be no more than minor

4.2.7 Earthworks effects

Transpower note that some earthworks may be required during construction of the facilities, in order to create level building platforms. The scale of such land disturbance will not be known until detail designs have been completed.

Currently, Designation 8521 does not contain any conditions relevant to earthworks. The proposed alteration does not enable earthworks of an area or volume beyond what the designation provides for. On this basis, I am satisfied that the effects of the alteration arising from earthworks will be no more than minor.

4.2.8 Stormwater effects

The site is subject to an existing stormwater discharge permit. A variation to this discharge permit will be required to address the impervious catchments around the transformers. Transpower note that this will be applied for at the time an Outline Plan of Works is submitted for installing the initial KiwiRail transformer and related infrastructure.

Transpower in their alteration do not seek any amendments that would affect how stormwater is treated and conveyed from the site. The site is subject to a stormwater discharge consent (Appendix D to the application material) and any change to the extent of imperviousness on the site can be addressed by a future variation to this consent. This can be undertaken alongside the preparation of an Outline Plan of Works, once detailed designs are completed.

Therefore, I am satisfied that the effects associated with stormwater will be no more than minor

4.2.9 Effects conclusion

Based on the information provided by the requiring authority, I consider that the adverse effects of the proposed designation are likely to be no more than minor. Environmental effects primarily associated with construction of the facilities will be localised and temporary in nature. The effects associated with the operation of the facilities, which relate primarily to landscape and visual effects, and noise effects,

² International Commission on Non-ionising Radiation Protection (ICNIRP) Guidelines

are considered to be no more than minor and can be avoided, mitigated or remedied through the proposed conditions of the designation as per Section 7.0 of this report

4.3 Section 171(1) – Part 2 Resource Management Act 1991

Part 2 RMA

The applicant has provided an assessment against Part 2 of the RMA in Section 4.1 of the AEE. This assessment reaches the following conclusions:

- The proposal is consistent with the purpose of the RMA under Section 5 as it enables people and communities to provide for their social, cultural and economic well-being by providing for a National Grid exit point. The adverse effects of the equipment enabled are not significantly different to those already enabled by the existing designation;
- No matters of national importance under Section 6 are considered to be relevant to the proposal;
- In terms of other matters under Section 7, the proposal gives effect to the principle of kaitiakitanga (s7(a)) and the ethic of stewardship (s7(a)), given the consultation undertaken by Transpower with Mana Whenua to date, and that Mana Whenua concerns have been addressed where possible by the proposed conditions. The proposal supports the efficient use of physical resources (s7(b)) by providing for an electricity exit point at an existing switching station facility connected to the National Grid. The proposal supports the maintenance and enhancement of amenity values (s7(c)) and the quality of the environment (s7(f)) given that any adverse effects over and above those of the already enabled by the existing designation are less than minor.
- In terms of the principles of the Treaty of Waitangi under Section 8, it is considered that the principles of the Treaty of Waitangi have been taken into account in terms of the consultation undertaken with mana whenua.

I agree with this assessment and consider that the proposal is consistent with Part 2 of the RMA.

4.4 Section 171(1)(a) – Relevant provisions

National Policy Statement on Electricity Transmission (NPSET)

The applicant has provided an assessment against the NPSET, contained in Section 4.2 of the AEE. In summary:

- The proposal gives effect to Policy 1 of the NPSET as it provides for improved security of electricity supply to the electrified rail network and enhanced supply to the Counties Power distribution network.
- Policies 2 to 9 of the NPSET generally address the management of environmental effects of transmission. The alteration takes into consideration technical and operational constraints of electricity transmission (Policy 3) particularly in relation to lower perimeter landscaping to avoid interference with , mitigates adverse effects through route, site and method selection (Policy 4) by accommodating the proposed facilities within the footprint of the existing switching station; uses a substantial upgrade of the facilities as an opportunity to reduce existing adverse

effects (Policy 6) associated with visual effects by addressing gaps in the existing boundary landscaping.

- Policies 10 and 11 of the NPSET address management of the adverse effects of third parties on the transmission network. The AUP already includes buffers in the form of an overlay around the periphery of the existing designation and the transmission lines entering and exiting the site to protect them of the adverse effects of the activities of third parties. No changes to these buffer overlays are required by changing the designation purpose and conditions.

I agree with this assessment and consider that the proposal is consistent with the NPSET.

National Policy Statement on Urban Development Capacity 2016

The applicant has provided an assessment against the National Policy Statement on Urban Development Capacity 2016, contained in Section 4.3 of the AEE. Transpower note that:

The NPS:UDC provides direction to decision-makers under the RMA on planning for urban environments. It recognises the national significance of well-functioning urban environments, with particular focus on ensuring that local authorities, through their planning, both:

- *enable urban environments to grow and change in response to the changing needs of the communities, and future generations; and*
- *provide enough space for their populations to happily live and work. This can be both through allowing development to go “up” by intensifying existing urban areas, and “out” by releasing land in greenfield areas.*

...

The provision of a grid exit point to both serve the electrified rail network in Auckland and local electricity distribution for the Drury South area provides necessary infrastructure to support urban capacity and intensification in Auckland.

I agree with this assessment and consider that the proposal is consistent with the National Policy Statement on Urban Development Capacity 2016.

Resource Management (National Environmental Standard for Electricity Transmission Activities) Regulations 2009

The applicant notes that “*The Resource Management (National Environmental Standard for Electricity Transmission Activities) Regulations 2009 (NESETA) applies to the operation, maintenance, upgrading, relocation, or removal of existing transmission lines that existed when the regulations came into force on 14 January 2010. Accordingly, they are not applicable to any works related to a substation*”. I agree with this assessment and therefore do not consider these provisions to be relevant to the proposal.

Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES Soils)

The applicant notes in Section 4.6 of the AEE that electricity switchyards are included on the Hazardous Activities and Industries List (‘HAIL’) and therefore subject to the provisions of the NES Soils. The AEE notes that once the extent of earthworks is confirmed, Transpower may need to apply

for resource consent under the NES Soils concurrently with any OPW. Soil testing may need to be undertaken in the future to determine the extent of contaminated soils.

I agree with this approach, and consider that the NES Soils will be more relevant once a detailed design and extent of earthworks is known, rather than being material to the proposed alteration.

Auckland Unitary Plan

The applicant has provided an assessment against the provisions of the AUP in Section 4.4 of the AEE. The applicant considers that the proposal aligns with the objectives and policies of Chapters B3 Infrastructure, transport and energy and E26 Infrastructure of the AUP for the following reasons:

- The proposal is consistent with Policies B3.2.2(1) and E26.2.2(1) and (4) due to the benefits it will provide to the people and communities of Auckland which can be achieved in a manner where the adverse effects of any additional infrastructure enabled will be appropriately managed due to the site and zone context and conditions proposed.
- The proposal is consistent with Policies B3.2.2(4) and E26.2.2(3) as the proposed infrastructure will be suitably protected from the adverse effects of reserve sensitivity and third-party activity, given the large site size and the presence of the National Grid Substation Corridor Overlay in the AUP provided around the boundaries of the site.

In addition, the applicant provided further information, dated 2 April 2019, related to an assessment against the objectives and policies of the Drury South Industrial Precinct. The request related primarily to landscape and visual matters. The applicant's response outlined the following:

- The proposal will maintain and enhance stream ecology and the natural vegetation and habitat values of the Hingaia and Maketu Streams (Policy I410.3(1)), given there is sufficient room on site to properly treat stormwater as part of any future changes to stormwater arrangements.
- The proposal supports the protection and enhancements of cultural heritage values of the precinct (Policy I410.3(2)) through the use of native planting in landscaping, as recommended by Ngāti Tamaoho through iwi consultation.
- The alteration will maintain a sense of openness and naturalness on land adjacent to State Highway 1 (Policy I410.3(4), and will maintain visual and physical links to the surrounding area within the precinct (Policy I410.3(5)), given the extent of existing planting along the site's western perimeter. The view of existing and potentially future structures on the subject site for motorway travellers will be partially screened and filtered by existing and growing vegetation.
- The proposal utilises complementary, consistent and coherent landscaping themes throughout the precinct (Policy I410.3(6)), given that the landscaping plan takes account of the existing boundary vegetation on the site.

I agree with this assessment and consider that the proposal is consistent with the AUP.

4.5 Section 171(1)(b) – Alternative sites, routes or methods

Section 171(1)(b) requires Council to have particular regard to 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 the work will have a significant adverse effect on the environment.

I am satisfied that a consideration of alternative sites, routes or methods is not required under section 171(1)(b) given that:

- Transpower have provided a Certificate of Title demonstrating ownership of the land and 261 Quarry Road, Drury
- As outlined in Section 4.2 of this report, the work will not have a significant adverse effect on the environment.

4.6 Section 171(1)(c) – Necessity for work and designation

The necessity for the work is broadly discussed in Section 1.3 and 5 of the AEE. This is also discussed in Section 3.0 of this report. I am satisfied the alteration and associated works enabled are necessary to provide a grid exit point for local electricity customers, including the KiwiRail electrified rail network and Counties Power electricity distribution network.

5.0 CONCLUSION

It is considered that the proposed alteration to Designation 8521 in the AUP will have no more than minor adverse effects on the existing environment. Conditions relating to the mitigation of actual and potential adverse environmental effects of the alteration are proposed for Designation 8521. It is therefore considered that the proposal satisfies Section 181(2) of the Act. The alteration to Designation 8521 can be confirmed and the designation can be altered accordingly.

6.0 RECOMMENDATION AND REASONS (SECTION 181(2) OF THE ACT)

Recommendation

- a) That the amendment to Designation 8521 submitted by Transpower New Zealand Limited be confirmed in the Auckland Unitary Plan (Operative in Part) pursuant to Section 181(2) of the RMA, subject to the conditions outlined in Section 7.0 of this report.**
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Reasons

- a) The alteration to Designation 8521 at 261 Quarry Road, Drury will have no more than minor effects upon the environment.
- b) No persons outside the subject site are considered directly affected by the proposed designation.
- c) The proposed designation is consistent with Part 8 of the Resource Management Act 1991.

7.0 CONDITIONS

The proposed amendments to Designation 8521 conditions are shown in ~~strike through~~ and underline below:

8521 Drury ~~Switching Station~~ Substation

Purpose

Electricity transmission - the construction, operation, maintenance, replacement, renewal and upgrading of a ~~220kV switchyard~~ substation up to and including 220kV, transmission lines, and ancillary facilities.

General

- ~~1. Any upgrading of the switchyard shall include all activities and effects relating to an increase in the carrying capacity, efficiency or security of supply through equipment within the designated site, but excludes an increase in voltage above 220kV.~~

Electric and Magnetic Fields

2. Any new equipment shall be designed and operated to limit the electric and magnetic field exposures at or beyond the secure boundary of the substation site to the International Commission on Non-Ionising Radiation Protection, Guidelines for limiting exposure to time-varying electric and magnetic fields (1Hz – 100kHz), (Health Physics 99(6):818-836; 2010) (ICNIRP Guidelines). That is the public reference levels of 5 kV/m for electric fields and 200 μ T for magnetic flux density at one metre above ground level under maximum normal operating conditions (ie, when there are no faults in the transmission system).
3. The site shall be designed and operated to limit public exposure to electric and magnetic fields, in accordance with the recommendations in Section 1 of the World Health Organisation monograph, Environmental Health Criteria No. 238 Extremely low frequency fields June 2007.

Advice Note:

Policy 9 of the National Policy Statement on Electricity Transmission refers to both the ICNIRP guidelines and the WHO monograph.

Landscaping

- ~~4. Landscaping must proceed in general accordance with the Landscaping Plan (figure 4) Proposed Vegetation Management Plan, drawing number A18112_006 Rev B drawn by Boffa Miskell Ltd and contained within their report entitled Landscape and Visual Effects Assessment dated September 2008 Assessment of Landscape and Visual Effects dated 21 December 2018.~~
- ~~5. The landscaping is to use screen planting with species capable of providing 15m high evergreen dense continuous screen around the site (with the exception of land underneath the pylons where low native planting will be grown).~~
6. All landscaping must be maintained in a healthy condition in order to give effect to the Landscaping Plan for the duration of the designation. Once a continuous row and/or canopy has been established, this maintenance shall include the replanting of any gaps created by the death or damage of trees, in order to allow continuous row and/or canopy to re-establish.

Lighting

7. All exterior on-site lighting shall be positioned and directed downwards within the site, away from adjacent properties, existing dwellings and public roads so as to minimise the level of spill light and glare.

Site Management

8. Stock proof fencing will be provided to exclude stock from all water bodies shown on the Landscaping Plan (figure 4) drawn by Boffa Miskell Ltd and contained within their report entitled Landscape and Visual Effects Assessment dated September 2008, should the site be used for grazing.

Electrical Interference

9. The switchyard shall be operated, managed and controlled so that there is no additional electrical interference with television or radio reception at any existing residence as a consequence of the construction and operation of the switchyard.

Operational Noise of the Switchyard Substation

10. The switchyard substation shall be operated in such a manner so that the noise level measured at the site boundaries of 261 Quarry Road any land contained in the Business - Light Industry Zone shall not exceed the following limits:

	<u>L_{eq} Levels</u>	<u>L_{max}</u>
Monday – Sunday 7am – 8pm	55 <u>65</u> dBA	-
Monday – Sunday 8pm – 7am	45 <u>65</u> dBA	75 dBA

- a. The noise levels shall be measured and assessed in accordance with the requirements of NZS 6801:2008 Acoustics – Measurement of Environmental Sound and NZS 6802:2008 Acoustics – Environmental Noise.
- b. The noise shall be measured by a sound level meter complying with the International Standard IEC 651(1979): Sound Level Meters, Type 1.
- c. Should the above standards be superseded then the most up to date standards shall apply.

- 10A. The substation shall be operated in such a manner so that the noise level measured at the interface with any residential zone shall not exceed the following limits:

	<u>L_{eq} Levels</u>	<u>L_{max}</u>

<u>Monday – Sunday</u> <u>7am – 8pm</u>	<u>55 dBA</u>	-
<u>Monday – Sunday</u> <u>8pm – 7am</u>	<u>45 dBA</u>	<u>75 dBA</u>

- a. The noise levels shall be measured and assessed in accordance with the requirements of NZS 6801:2008 Acoustics – Measurement of Environmental Sound and NZS 6802:2008 Acoustics – Environmental Noise.
- b. The noise shall be measured by a sound level meter complying with the International Standard IEC 651(1979): Sound Level Meters, Type 1.
- c. Should the above standards be superseded then the most up to date standards shall apply.

11. Circuit breaker maintenance noise shall not exceed 75 dBA Lmax at the boundaries of any land contained in the Business - Light Industry Zone at all times.

Signage

12. No advertising signs shall be placed on any structure, wall or fence within the site (directional and safety signs are exempted).

Earth Potential Rise or Induced Voltage Hazards

13. The requiring authority shall ensure that any earth potential rise or induced voltage hazards caused by the switchyard comply with the NZ Electrical Code of Practice 35 and shall not adversely affect the operation of existing infrastructure.

Construction Noise

14. The requiring authority must comply with the noise standards set out in NZS 6803:1999 Acoustics – Construction Noise at all times while any construction works are being carried out on site.

Cultural / Spiritual

15. If any urupā, traditional sites, taonga (significant artefacts), kōiwi (human remains) or other archaeological sites 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 such a way that ensures that any artefacts or remains are untouched; and
 - c. The site supervisor shall notify tāngata whenua, the New Zealand Historic Places Trust, the Department of Conservation, 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.
16. That the requiring authority consult with the Kaitiaki Unit (Te Roopu Kaitiaki O Papakura) in regard to the proposed creation of a wetland and riparian planting to mitigate the diversion of one of the springs on the site.

Advice note:


1. Any new works or equipment means those works which were not existing prior to the notification of the Auckland Unitary Plan.

Attachments

Figure 4


Proposed Vegetation Management Plan, Drawing Number A18112 006, Rev B

Signatories

Author	 Sanjay Bangs, Planner, Planning Central and South Date: 18/04/2019
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8.0 SECTION 181(2) RECOMMENDATION

The above Notice to alter Designation 8521 Drury Switching Station at 261 Quarry Road, Drury in the Auckland Unitary Plan (Operative in Part) has been considered under Delegated Authority by the Auckland Council and is hereby recommended to be **CONFIRMED** in accordance with Section 181 of the Resource Management Act 1991. The Auckland Unitary Plan (Operative in Part) shall be amended accordingly to alter Designation 8521.

Authoriser	 Craig Cairncross, Team Leader, Planning Central and South Date: 18/04/2019
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KEY

- BOUNDARY SCREEN PLANTING - 15m**
All boundary areas depicted in green shall be planted such that the tree species or mix of species selected is capable of providing a 15m high evergreen screen. These areas may be trimmed to a height of 15m to avoid conflict with overhead lines.
- BOUNDARY LOW NATIVE PLANTING - 3m**
All boundary areas depicted in orange are to be planted with shrub species capable of reaching 3m high. These areas may be trimmed to a height of 3m to avoid conflict with overhead lines.
- INTERNAL PLANTING - VARIOUS HEIGHTS**
Indicative internal planting may be subject to trimming or removal for operational requirements.

BOUNDARY SCREEN SPECIES TO INCLUDE:

- AGATHIS AUSTRALIS
- CORDYLINA AUSTRALIS
- CUPRESSOCYPARIS LEYLANDII
- CRYPTOMERIA JAPONICA
- GRISELINIA LITTORALIS
- KUNZEA ERICOIDES
- LEPTOSPERMUM SCOPARIUM
- PITTOSPORUM EUGENIODES
- PITTOSPORUM TENUIFOLIUM

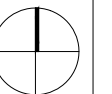
BOUNDARY LOW NATIVE SPECIES TO INCLUDE:

- GRISELINIA LITTORALIS

NOTE: PLANTING AREAS ARE INDICATIVE ONLY AND SUBJECT TO CONFIRMATION ON SITE BY TRANSPOWER ENGINEERS.

EXISTING CRYPTOMERIA SP THAT DEVELOP ROOT ROT AND FAIL TO SURVIVE WILL BE REPLACED BY CUPRESSUS LEYLANDII. THESE SPECIES MAY BE MAINTAINED TO HEIGHT OF 15m TO AVOID CONFLICT WITH EXISTING AND FUTURE LINES.

NO PLANTING IS TO BE LOCATED WITHIN 5m OF ANY TOWERS OR OTHER INFRASTRUCTURE



NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

REV	DATE	DESCRIPTION
B	09.04.19	PLANT SPECIES CHANGE

CLIENT **Transpower NZ**

CONSULTANTS

Drury Switching Station

Proposed Vegetation Management Plan

Design JGo	Scale 1:1000 @ A1	Date 26.11.18
Drawn MBe	Check 1:2000 @ A3	
App'd		

DRAWING NO. **A18112_006** REVISION **(B)**

8521 Drury Substation

Designation Number	8521
Requiring Authority	Transpower New Zealand Ltd
Location	261 Quarry Road, Drury
Rollover Designation	Yes
Legacy Reference	Designation 45, Auckland Council District Plan (Papakura Rural Section) 1999
Lapse Date	Given effect to (i.e. no lapse date)

Purpose

Electricity transmission - the construction, operation, maintenance, replacement, renewal and upgrading of a substation up to and including 220kV, transmission lines, and ancillary facilities.

Conditions

Electric and Magnetic Fields

1. Any new equipment shall be designed and operated to limit the electric and magnetic field exposures at or beyond the secure boundary of the substation site to the International Commission on Non-Ionising Radiation Protection, Guidelines for limiting exposure to time-varying electric and magnetic fields (1Hz – 100kHz), (Health Physics 99(6):818-836; 2010) (ICNIRP Guidelines). That is the public reference levels of 5 kV/m for electric fields and 200 µT for magnetic flux density at one metre above ground level under maximum normal operating conditions (ie, when there are no faults in the transmission system).
2. The site shall be designed and operated to limit public exposure to electric and magnetic fields, in accordance with the recommendations in Section 1 of the World Health Organisation monograph, Environmental Health Criteria No. 238 Extremely low frequency fields June 2007.

Advice Note: Policy 9 of the National Policy Statement on Electricity Transmission refers to both the ICNIRP guidelines and the WHO monograph.

Landscaping

3. Landscaping must proceed in general accordance with the Proposed Vegetation Management Plan, drawing number A18112 006 Rev B drawn by Boffa Miskell Ltd and contained within their report entitled Assessment of Landscape and Visual Effects dated 21 December 2018.
4. All landscaping must be maintained in a healthy condition in order to give effect to the Landscaping Plan for the duration of the designation. Once a continuous row and/or canopy has been established, this maintenance shall include the replanting of any gaps created by the death or damage of trees, in order to allow continuous row and/or canopy to re-establish.

Lighting

5. All exterior on-site lighting shall be positioned and directed downwards within the site, away from adjacent properties, existing dwellings and public roads so as to minimise the level of spill light and glare.

Site Management

6. Stock proof fencing will be provided to exclude stock from all water bodies shown on the Landscaping Plan (figure 4) drawn by Boffa Miskell Ltd and contained within their report entitled Landscape and Visual Effects Assessment dated September 2008, should the site be used for grazing.

Electrical Interference

7. The switchyard shall be operated, managed and controlled so that there is no additional electrical interference with television or radio reception at any existing residence as a consequence of the construction and operation of the switchyard.

Operational Noise of the Substation

8. The substation shall be operated in such a manner so that the noise level measured at the boundaries of any land contained in the Business – Light Industry Zone shall not exceed the following limits:

	L _{eq} Levels	L _{max}
Monday – Sunday 7am – 8pm	65 dBA	-
Monday – Sunday 8pm – 7am	65 dBA	75 dBA

- a. The noise levels shall be measured and assessed in accordance with the requirements of NZS 6801:2008 Acoustics – Measurement of Environmental Sound and NZS 6802:2008 Acoustics – Environmental Noise.
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Advice note

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Attachments

Proposed Vegetation Management Plan, Drawing Number A18112_006, Rev B

