



DECISION OF THE QUEENSTOWN-LAKES DISTRICT COUNCIL

RESOURCE MANAGEMENT ACT 1991

Applicant:	Aurora Energy Limited
RM reference:	RM120328
Location:	Corner Ballantyne and Riverbank Roads, Wanaka
Proposal:	An application as a Requiring Authority to designate 5,390 m ² of land for the purpose of an electricity switching/substation.
Type of Consent:	Notice of Requirement to be assessed under section 171 of the RMA
Legal Description:	Lot 1 DP 306149 held in Computer Freehold Register OT/24140.
Valuation Number:	2906102701
Zoning:	Rural General
Notification:	Publicly notified
Commissioners:	Commissioners D J Taylor and C Gilmour
Date:	12 February 2014
Recommendation:	The Requirement be confirmed with conditions imposed

BEFORE QUEENSTOWN LAKES DISTRICT COUNCIL

IN THE MATTER of the Resource
Management Act 1991

AND

IN THE MATTER of an application by
Aurora Energy Limited as
a Requiring Authority to
designate 5,390 m² of
land for the purpose of an
Electricity Switching/
Substation

Council file: RM120328

**DECISION OF COMMISSIONERS APPOINTED BY QUEENSTOWN
LAKES DISTRICT COUNCIL**

12 February 2014

Commissioners:

D Jane Taylor (Queenstown)
Cath Gilmour (Queenstown)

The Hearing and Appearances

Hearing Date

Monday 16 December 2013, at Wanaka

Appearances for Aurora Energy Limited

Mr P J Page, Counsel

Ms T D Willmott, Asset Manager, Delta Utility Services

Mr D J Mulder, Senior Planning Engineer, Aurora Energy Limited

Mr D R Anderson, Resource Management Consultant, Anderson & Co, Dunedin

Submitters Appearing in Person

Ms R Shanks

Mr M McGill

Ms F Aitken

In Attendance

Mr I Greaves, Reporting Planner, Queenstown Lakes District Council

Mr R Denney, Landscape Architect

Ms R Beer, Committee Secretary

Introduction

1. Aurora Energy Limited ("the Applicant") is both a Network Utility Operator and a Requiring Authority. It is an electricity business as defined in the Electricity Reform Act 1998, as it owns and operates lines used for the conveyance of electricity.
2. In its capacity as a Requiring Authority, the Applicant is seeking to designate 5,390 m² of land for the purposes of an electricity switching/substation. The proposed substation will provide for future electricity demand in Wanaka and the surrounding communities.
3. The legal description of the property is part of Lot 1 DP 306149 held in Computer Freehold Register OT/24140, which has a total area of 2.304 hectares.
4. Full details of the application can be found in the Notice of Requirement under Sections 145, 168(1), (2), 168A and 181; Clause 4 of the First Schedule, Resource Management Act 1991 (Form 18); and in the Assessment of Environmental Effects prepared by Mr Anderson which accompanied the Notice of Requirement.

5. A suite of proposed conditions to be attached to the designation, which incorporate restrictions on future building height, location, noise and landscaping, were provided by the Reporting Planner. The conditions require that Outline Plans¹ be provided to the Territorial Authority for consideration prior to the construction of, or external alterations to the switching/substation.
6. The subject site is located on the corner of Ballantyne Road and Riverbank Road, Wanaka. Historically, this site has been utilised as a quarry. As a result, the land has been excavated below road level, with areas of exposed cut batters and piles of gravel remaining. Test pits excavated by Tonkin & Taylor Limited during their geotechnical assessment of the site also suggest that the site may have previously been used as a landfill.
7. The western half of the lot, which is currently owned by Queenstown Lakes District Council ("Council"), comprises the Council's dog pound.
8. The Reporting Planner noted that the site is surrounded by a variety of zones and land uses. Land to the immediate south is zoned Rural General and contains a number of lifestyle block developments. The land on the opposite side of Riverbank Road is zoned Rural Lifestyle and primarily contains established dwellings. The Wanaka Industrial Zone is situated directly west of the subject site and contains recently established warehouse buildings. This zone was recently extended under the now operative Plan Change 36. The Industrial Zone is separated from land to the south, which includes the subject site, by a steep terrace face.
9. To the east of the site is Council's recycling depot and waste transfer station.
10. A private plan change by Orchard Road Holdings Limited was lodged in July 2013 and seeks to rezone land south-west of the subject site (currently zoned Rural General) to Low Density Residential and Industrial B Zones. This plan change (referred to in Council records as Plan Change 46) is currently on hold pending further information.

Relevant Statutory Provisions

11. The provision of the Resource Management Act 1991 relevant to the assessment of this Notice of Requirement is s.171, which is set out as follows:

171 Recommendation by territorial authority

(1A) When considering a requirement and any submissions received, a territorial authority must not have regard to trade competition or the effects of trade competition.

(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*

¹ In accordance with s.176A of the Act.

- (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.*
 - (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.*
 - (3) *The territorial authority must give reasons for its recommendation under subsection (2).*
12. Part 2 of the Act sets out the Act's purpose, which is to promote the sustainable management of the natural and physical resources. The definition of sustainable management is:

... 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 well-being 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*
- (b) *Safe-guarding the life-supporting capacity of air, water, soil and eco-systems; and*
- (c) *Avoiding, remedying or mitigating any adverse effect of activities on the environment.*

Relevant Plan Provisions

13. The relevant planning documents considered were:
- (a) The Operative Queenstown Lakes District Plan and, in particular, the following sections:
 - Part 17 – *Utilities*
 - Parts 4 and 5 – *District Wide Issues and Rural Areas*
14. We accept Mr Page's submission that the objectives, policies and rules set out in Part 17 of the Plan carry the most weight when considering the effects on the environment of allowing the requirement under s.171(1)(a). Utilities, by their nature, comprise fundamental

infrastructure that enable all areas of communities to function. Support for this approach is found at paragraph 17.2.2 of the District Plan, which provides that the rules in the *Utilities* section (Part 17) take precedence over any other rules that may apply to utilities (unless stated to the contrary).

Application Information

15. The following information has been received and considered by the Commission in making its recommendation to the Requiring Authority:
 - (a) A report dated 2 December 2013 prepared under Section 42A of the Act by Mr Ian Greaves, the Reporting Planner for the Council;
 - (b) The appendices to that report including the Notice of Requirement and the Assessment of Environmental Effects prepared by Mr Don Anderson on behalf of the Applicant;
 - (c) A Landscape Assessment Report dated 25 November 2013 prepared by Mr Richard Denney, Landscape Architect, and
 - (d) An Engineering Report prepared by Ms Lynn Overton dated 13 September 2013.
16. The following documents contained in the Agenda accompanying the Section 42A report have also been considered in determining this application:
 - (a) The Notice of Requirement (Form 18) dated 1 June 2012;
 - (b) An Assessment of Environmental Effects prepared by Don Anderson for the Notice of Requirement by Aurora Energy Limited dated 1 June 2012;
 - (c) The appendices to the AEE, including the relevant Certificate of Title and proposed designation map over Part Lot 1 DP 306149;
 - (d) The written evidence of William Adam Fletcher, which discussed the growth of the electrical load, the reliability of the electrical load, the choice of the site and the consequences of the designation not being confirmed;
 - (e) A Geotechnical Investigation prepared by Tonkin & Taylor Limited dated October 2012;
 - (f) A Site Management Plan for Ground Contamination prepared by Tonkin & Taylor Limited dated June 2013;
 - (g) A Preliminary Site Investigation for Ground Contamination prepared by Tonkin & Taylor Limited dated March 2013; and
 - (h) A Seismic Assessment Summary prepared by Geosolve (undated).
17. The Section 42A report recommended that the Notice of Requirement be confirmed pursuant to s. 171(2)(a) of the Act subject to:

- (i) The provision of sufficient details to illustrate that the proposed designation will not result in any adverse effects in terms of groundwater contamination and health effects associated with electromagnetic emissions;
 - (ii) Specification of a height control for all buildings and structures, to be set by a reference level taken from the location of the profile pole currently established on site;
 - (iii) The establishment of vegetation along the top terrace (within the property but outside the designation area) or, alternatively, the height limit for structures be reduced to 7 metres;
 - (iv) The provision of sufficient assessment with regard to alternative locations that could accommodate the proposed designation; and
 - (v) Any new or additional evidence being presented at the hearing.
18. The Section 42A report also provided a set of conditions (Appendix 1 to the Section 42A report) to be added to the Notice of Requirement pursuant to s.171(2)(c) of the Act.

Notification and Submissions

19. The application was publicly notified on 26 September 2013 and the period for lodging submissions closed on 24 October 2013. A total of six submissions were received within the statutory timeframe. Five submissions were opposed to the application, with one submission (Raelene and Peter Shanks) neither in support nor in opposition to the application. Part 4 of the Section 42A report summarises the submissions and relief sought. The reasons for opposition are briefly summarised as follows:
- (a) The application failed to address amenity values associated with the landscape in this location;
 - (b) The assessment of risk in relation to the Nevis-Cardrona Fault was inadequate and, accordingly, the site is inappropriate;
 - (c) The assessment of risk associated with the electromagnetic field from the substation was inadequate and could result in public health issues;
 - (d) The noise limits offered as a condition on the designation did not take into account special audible characteristics;
 - (e) The substation could contaminate ground water and result in adverse implications for the supply of potable water to neighbouring residents; and
 - (f) There are alternative sites that are more suitable for the substation, such as the Three Parks industrial yard.

Summary of the Evidence Heard

20. The following is a brief outline of the submissions and evidence presented on behalf of the Applicant, and by the submitters appearing in person. We have not attempted to cover everything that was advanced as, where relevant, detailed material is included in our discussion of the various considerations required under s.171.

Applicant

21. **Mr Phil Page** presented written submissions, describing the purpose of the application and the legal framework (including the Queenstown Lakes District Plan). Mr Page then addressed some of the main issues in relation to effects on the environment that had been raised in the Section 42A report and in submissions, including noise, electromagnetic fields, visual effects (visual amenity and landscape character) and natural hazards.
22. Mr Page also discussed the New Zealand Code of Practice for Electrical Safe Distances 2001 and the consideration of alternative sites as this pertains to our evaluation under s.171 of the Act.
23. **Ms Tracy Willmott** gave evidence in relation to the necessity for the establishment of a future switching and zone substation site in the context of Aurora's obligations to supply electricity. She explained that the proposed site will assist Aurora to meet its reliability and supply security commitments, and is required for two main reasons: first, to cater for the growing electricity demand in the Upper Clutha area and in particular, Wanaka's continued growth; and secondly, to maintain the existing (or improved) reliability of supply.
24. Ms Willmott also addressed Aurora's obligations under Part 4 of the Commerce Act 1986 and described Aurora's Asset Management Plan ("AMP"), which she considered "*a vital component of achieving the most appropriate balance between performance, risk and cost over the lifetime of the assets managed*". She noted that Wanaka has experienced substantial load growth in the last decade that is atypical of the wider Aurora network. As a result, the security and quality of supply to Wanaka is an increasingly important aspect of Aurora's AMP.
25. **Mr John Mulder** described the electricity network for the Upper Clutha area and gave details of the substation project. He explained that the site at the corner of Ballantyne Road and Riverbank Road was chosen because it is located at the existing crossing point of one of the 66kV lines from Cromwell and the lines to the Cardrona and Maungawera substations. Although other locations in the immediate vicinity were considered, the current location was favoured as it sits in a hollow and therefore has a lower visual impact, yet is high enough above the river to avoid a major flooding risk. Any other location would require the construction of additional 66kV lines. Mr Mulder also discussed the responses to submissions in relation to noise, electromagnetic fields and the likelihood of an explosive failure of components at the proposed substation.
26. **Mr Don Anderson** discussed the background to the Notice of Requirement and, in particular, the planning background, which he described as "not straightforward". In his opinion, the proposed designated land sits comfortably within the mixture of zones and features within the immediate environs.

27. Mr Anderson also discussed the landscape and visual amenity effects of the proposed substation. He explained that Section 17 provides that the need for and acceptance of the effects of utilities overrides the landscape expectations for the Rural General Zone. In his opinion, Section 17 takes precedence over the assessment matters for the Rural General Zone.

Submitters

28. **Mr Mark McGill** presented an oral submission elaborating on the concerns expressed in his written submission. He canvassed, in particular, the potential for contamination of groundwater and the resulting effect on potable water supply to the surrounding residential development. He also expressed concern in relation to likely noise levels and with regard to visual amenity and the height of the transmission poles/lines.
29. **Ms Raelene Shanks** addressed the concerns raised in her submission; in particular, the necessity to screen the proposed substation from Riverbank Road. In her opinion, appropriate mitigation between the substation and her property is necessary. Ms Shanks also expressed concern in relation to noise. In Ms Shanks' opinion, as Council currently owns the property and must therefore agree to the sale if the designation proceeds, landscaping should be made a condition of the sale and should be commenced immediately. If residents "were going to have to tolerate a substation", the Council should ensure that any major adverse effects were suitably mitigated.
30. **Ms Fiona Aitken** presented a written submission that addressed noise levels, visibility and the assessment of risk associated with the Nevis-Cardrona Fault. In her opinion, the proposed location is unsuitable for the substation due to its proximity to the Nevis-Cardrona Fault, in the absence of further due diligence at the site to determine the exact position of the fault.

Assessment

Actual and potential effects on the environment

31. Mr Greaves has carried out a comprehensive analysis of the actual and potential effects on the environment raised by the NOR. Of these, the principal issues that arise are in relation to natural hazards, visual amenity and landscape character, noise, health effects (electromagnetic field) and land contamination. Each of these is discussed as follows.

Natural hazards

32. Both Mr Greaves and Ms Aitken noted that Council's hazard map indicates that the Nevis Cardona Fault line appears to pass through the site. As a result, the Applicant requested a site-specific geotechnical assessment from Tonkin & Taylor Limited ("Tonkin & Taylor"), which was provided by way of a report dated October 2012. At paragraph 4.4 Tonkin & Taylor identified that the site lies in the immediate vicinity of the "*inferred location of the active Cardrona Fault*". This fault has an average return period of about 7,000 years and an inferred magnitude MW of around 7. Tonkin & Taylor confirmed that there are no surface traces of the fault evident in the field or on aerial photographs in the site area and that the closest mapped trace is approximately 7km to the south in the Cardrona Valley. To further investigate faulting risk, a 25 metre long trench was excavated across the site at right angles

to the trend of the fault. No evidence of fault displacement at the gravel bedding was detected.

33. Tonkin & Taylor concluded that on the basis of the available evidence, the risk of direct fault rupture through the site is low and that the main seismic risk in this region is potentially strong ground shaking likely to be associated with a rupture of the Alpine Fault located along the West Coast of the South Island. The report noted that there is a *“high probability that an earthquake with an expected magnitude of over 8 will occur along the Alpine Fault within the next 50 years”*.
34. As a result of concerns in relation to the Nevis-Cardrona Fault raised by submitters, the Applicant commissioned a further report from Geosolve to assess the risk of locating the development near the Nevis-Cardrona Fault. This report notes that the fault in the vicinity of the proposed substation is *“present in bedrock, but has no surface expression”*. The exact location cannot be pinpointed, only inferred in an approximate manner from geological evidence. The report sets out the Department of Environment Guidelines for “Planning and for Development of Land on or close to Active Faults” (the “Guidelines”). Under these Guidelines, the Nevis-Cardrona Fault is classed as “Class IV active” (return period 5,000 to 10,000 years). Its location is considered to be “uncertain – constrained”, as the fault position can only be defined to within a few hundred metres. The proposed substation is considered to fall into Building Compliance Category 3, which includes electrical generating plants and other infrastructure elements of a similar nature. Under Table 11.2 of the Guidelines, which covers developed and already subdivided sites, the activity status based on these characteristics is stated as “permitted”. The report noted that detailed geological investigations at the site showed no evidence of fault displacements in the last 15,000 years. On the basis of this data, coupled with geological evidence of a 7,500 year average return period on the fault, the risk of future fault rupture through this site and associated earthquake shaking was considered low. Geosolve endorsed Tonkin & Taylor’s conclusion that the greater seismic risk to the site comes from shaking by an earthquake on the Alpine Fault of up to magnitude 8.
35. Having considered the evidence before us, it is plain that the exact location of the Nevis-Cardrona Fault is uncertain. In his closing address, Mr Page agreed that the location of the substation either on or close to the Nevis-Cardrona Fault was relevant to our consideration of the adverse effects on the environment. However, in his submission, the only relevant effects are: first, how hazardous substances are stored on the site and, secondly, the effect on the community of not having electricity as a result of a complete outage if a large earthquake was to occur. Any resultant damage to Aurora’s infrastructure (which is not an effect on the environment) is purely a factor to be taken into consideration by the Applicant.
36. It is plain that the Applicant both understands and has assumed the risks associated with seismic activity, both in relation to the Nevis-Cardona Fault and, indeed, the Alpine Fault, in siting this substation. We concur with Mr Greaves’ recommendation that a condition be attached to the NOR to ensure that the foundations for any future substation are adequately designed (by a chartered professional engineer) to take account of seismic activity, in accordance with the recommendations of the Tonkin & Taylor geotechnical report. Accordingly, with the inclusion of this condition, we are satisfied that the risks associated with seismic activity are adequately mitigated.

Landscape and Visual Amenity

37. Mr Greaves noted that the site sits in a prominent location at a relatively busy intersection on the corner of Ballantyne Road and Riverbank Road. As no concept design for the proposed switching/substation was submitted with the NOR, it was not possible to undertake a detailed assessment of the visual effects of the resulting development. However, it has been possible to make an assessment of the broader parameters of the proposed development in terms of the bulk location and landscaping effects.
38. Mr Page submitted that a reference level (datum) has yet to be determined for the purposes of the proposed buildings. He initially suggested that proposed Conditions 2 and 3 should reflect the District Plan definition of ground level and that the datum could be specified at the Outline Plan stage. However, in response to concerns expressed at the hearing, Mr Page modified his position in his closing reply by conceding that Conditions 2 and 3 could include a datum level, provided that this was measured at the existing ground level near the intersection gate. This work was subsequently carried out after the hearing and the appropriate level ascertained for the purposes of the relevant conditions.
39. Mr Denney described the subject site as *“located within a relatively visually-confined area at the base of a depression at the toe of the terrace face”*. Any future development would sit largely within a pit on the lower terrace floor. Accordingly, the visual catchment is limited to an immediate area within roughly 250 metres of the intersection of Ballantyne and Riverbank Roads, except to the east where the open side of the pit enables views from the other side of the river along Ballantyne Road for approximately 800 metres. Mr Denney noted that future development would be “highly visible” immediately adjacent to the site boundaries and would potentially break the skyline when viewed from Riverbank Road to the south of the intersection.
40. Nearly all of the submitters, who comprise residents of the adjacent Rural Lifestyle and Rural General properties to the east and south of the subject site, raised concerns with regard to the visibility of the future substation. Their particular concern was for the potential of structures to exceed the height of the southern terrace face within the site, with the result that any structures would be visually prominent from south Riverbank Road and from dwellings in this south/eastern location.
41. Concern was further heightened by discussion at the hearing, which ascertained that as there was no fixed datum point from which to ascertain the height of the structures, it was possible that structures could protrude up to 3 metres above the height of the southern terrace, rather than 2 metres as had been assessed by Mr Denney.
42. Both Mr Greaves and Mr Denney concluded that planting along the top terrace would offer valuable visual mitigation in relation to views from Riverbank Road to the south and the surrounding dwellings. As Mr Denney noted, the proposed planting of the roadside boundaries (if densely planted), supported by further planting along the top of the terrace face would provide increased valuable visual containment to the site. Whilst the terrace planting would not screen the large structures expected with such a facility, it would nonetheless provide some visual softening, retention of rural character and a greener vegetated interface with the road. We accept Mr Denney’s opinion that when viewed from

the upper terrace, structures would largely be screened from view; while from the lower terrace around the road intersection, views to structures would be softened.

43. The Applicant offered a condition that would require a boundary hedge to be planted along the Ballantyne and Riverbank Road frontages to provide visual mitigation of any buildings and structures in views from public places (primarily the roads). This planting would be limited to a maximum height of 3 metres for operational reasons. While this would provide some degree of mitigation, Mr Greaves considered that the effectiveness of this planting would be reduced by the elevated level of both Ballantyne and Riverbank Roads in the vicinity of the site and the maximum height (3 metres) of the proposed hedge. We are of the view that although the hedge will not fully screen the proposed development, it will be adequate to provide the visual containment and “softening” recommended by Mr Denney in views from the roads.
44. However, the south terrace, which we were advised by Mr Page is to remain the property of Council under the sale and purchase agreement, is not part of the proposed designation area and, accordingly, the Requiring Authority will not own this land. We accept that we are unable to impose an obligation that would require planting on land that is not owned or controlled by the Applicant.
45. In response to the concerns expressed at the hearing, Mr Page, in his closing address, submitted that although the Applicant could not offer to plant the top of the bank, it was prepared to provide plants for landowners (including Council) to plant on their own land, provided that specification around plant material and timing could be agreed.
46. Having considered the matter of visual amenity carefully, and having had regard to the objectives and policies of the Rural and Rural Lifestyle Zones, we have formed the view that the adverse effect of the proposed structures on landscape character and visual amenity when viewed from Riverbank Road to the south (and from the surrounding dwellings in this location) would be significantly adverse unless suitable mitigation planting along the ridgeline terrace is established. Given the Applicant’s estimate of the maximum height of the structures required, such mitigation should reach a minimum height of 3 metres to be effective. The earlier that planting is established, the more likely it is that suitable mitigation will be in place prior to commencement of the substation works.
47. Following the hearing, and in response to Mrs Shank’s enquiry at the hearing, Mr Greaves ascertained that the top terrace is required to be planted by Council under conditions of consent associated with Council’s application for the neighbouring dog pound (RM100548). Although consent for the dog pound was obtained in 2010, the detailed landscape plan has not yet been provided for approval (or implemented). Mr Greaves has assessed the dog pound landscape concept plan and advised that with some supplementary planting (estimated at 136 plants), sufficient mitigation would be provided to remedy the adverse effects of the present application. The Applicant, however, is only prepared to offer 68 plants, as in its view, having studied the dog pound landscape plan, it has “*serious doubts that there is any mitigation function left for additional plants to be provided by Aurora*”. We consider this approach to be disappointing given the relatively minimal cost involved; however, as the supply of plants has been volunteered, we have no option other than to accept Aurora’s decision. We are, however, firm on the timing of the supply of the plants, as their provision at the time Council carries out the landscaping is not only efficient but will

enable effective mitigation to be in place at the time the substantive works are commenced. The timing of mitigation planting was, in our opinion, a valid concern of the neighbouring landowners.

48. Accordingly a condition has been included recommending that the Applicant shall offer provide the 68 necessary plants to Council at the time that the terrace is landscaped in accordance with the dog pound consent.
49. In summary, given the introduction of the proposed facility next door to existing rural properties that have high rural amenity, we consider the terrace planting, which was the only contentious aspect of the proposed landscaping condition, to be essential. It is fortuitous that notwithstanding the difference of opinion on the number of plants required, a sensible and practical solution has been found.

Noise

50. Both the Reporting Planner and a number of submitters raised concerns with regard to potential noise from the proposed substation. In his evidence, Mr Mulder described the nature of the noise associated with transformers at substations, which is caused by vibrations associated with the magnetic field inside the transformer and cooling fans that are switched on occasionally. He stated that transformer noise is generally classified as tonal and therefore a special audible characteristic adjustment would apply, which lowers the allowable noise level under the District Plan by 5dB. Aurora specifies new transformers with a maximum noise level of 65dBA at 1 metre, which equates to a level of approximately 33dBA at a distance of 40 metres from the transformer. This level meets the proposed 40dBA night time limit, which includes the 5dB special audible characteristic adjustment.
51. At the hearing, Mr Greaves confirmed that he was comfortable with Mr Mulder's explanation that noise would meet the requirements of the District Plan. In his opinion, an acoustic report was not required, particularly as there is currently no Outline Plan to assess.² A condition has been included to ensure that any future substation complies with the District Plan noise limits and, accordingly, we are satisfied that any effects associated noise will be appropriately avoided.

Land contamination

52. As Mr Greaves noted, the site has been identified as a Hazard Activities and Industries List ("HAIL") site, as the property was previously used as a landfill. In Mr Greaves' opinion, because the site has been identified as a HAIL, the proposed designation needs to be considered under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health ("NES").
53. Mr McGill raised concern that with the presence of potential land contamination, any future works within the designation may adversely impact on the quality of ground water, which in turn could adversely affect the quality of potable water provided to the rural residential developments to the east and south of the site.

² At the time an Outline Plan is considered Council would require evidence that the proposed development (substation) complies with the noise condition of the designation. In Mr Greaves' experience this would normally be an acoustic report submitted with the Outline Plan application from a suitably qualified acoustic engineer.

54. Two ground contamination investigation reports prepared by Tonkin & Taylor dated May 2013 and June 2013 respectively have been considered. The Tonkin & Taylor investigations concluded that land contamination poses no undue health risks to any future users of the site as a result of the proposed designation. The report noted that future assessment would be required in terms of the contamination effects that may result from future earthworks. It is likely that consent under the NES would be required for any future earthworks and this was considered to be an appropriate mechanism to control or mitigate any potential effects that could result from the earthworks.
55. In his closing reply, Mr Page noted that the NES process is linked to the Outline Development Plan process and that an earth mat will be required as part of the switching/substation development. He confirmed that a detailed investigation and assessment would be required in terms of the effects that may result from future earthworks (once the details are available) and that consent would be required under the NES, which would ensure that there will be no impact on water quality or potable water. He commented that it would be *“the end of the project”* if consent could not be obtained under the NES. Accordingly, we are satisfied that for the purposes of the NOR, land contamination has been adequately addressed and that any potential issues will be controlled or mitigated through subsequent processes.

Health effects

56. A number of submitters raised concern in relation to potential health effects that may result from the proximity of the substation to residential properties. This issue was comprehensively addressed by Mr Mulder, who clarified that from calculations and measurements carried out at existing substations operated by Aurora, the electromagnetic fields outside the boundary of the substation are likely to be 100 times less than the guidelines recommended for public exposure by the National Radiation Laboratory, and expected to be less than those associated with normal domestic appliances and household wiring. He confirmed that measures would be taken to protect the substation from lightning and the explosive failure of any components. Accordingly, we accept that there will be no adverse health effects that might affect persons occupying the neighbouring residential properties as a result of electromagnetic emissions or natural disasters.

Conclusion on effects

57. Overall, having considered the evidence before us, it is our opinion that any adverse effects associated with the proposed designation (as discussed above) have been, or can be avoided or mitigated through the recommended conditions to the designation. In particular, the adverse effects on landscape and visual amenity have been appropriately mitigated. We are satisfied that any issues in relation to potential ground water contamination will be satisfactorily addressed through processes associated with the Outline Plan (including consent under the NES) and that any health effects associated with electromagnetic emissions are negligible.

Objectives and Policies of the District Plan

58. Mr Greaves has carried out a comprehensive analysis of the relevant objectives and policies in the District Plan at section 8.3.3 of his Section 42A report. The Applicant largely concurred with Mr Greaves' assessment. As previously discussed, it was common ground that Part 17

– *Utilities* is to be given the greatest weight in this analysis; however, Parts 4 and 5 are also relevant, particularly with relation to landscape and visual amenity, as a result of the zoning.

59. Mr Anderson drew our attention to the issues captured by Objective 3 – *Environment Impacts* in Part 17, which states:

“... to avoid, remedy or mitigate the adverse effects of utilities on the surrounding environment, particularly those in or on land of high landscape value.”

60. Mr Anderson submitted that this particular site was not land of high value (due to its history of degradation) and we concur; however, it is plain that the land bordering the site immediately to the south and to the east (the Rural General land and Rural Lifestyle subdivision) is land of relatively high amenity value characteristic of VAL landscape in the Wanaka area. As previously discussed, we have concluded that for this reason, the effects on landscape should be suitably mitigated to ensure that as much of the rural character as possible is retained in the rural zones, and to soften the transition to a mixed-use zone. Accordingly, we consider that the thrust of the landscape discussion under Part 17 supports the volunteered condition requiring the Applicant to provide plants to ensure that the ridgeline is planted appropriately. As Mr Anderson noted, the explanation of Policy 3.4 specifically recognises that *“electricity services do result in some adverse effects on landscape amenity, and with mitigation this is accepted”*. The mitigation proposed is a relatively straightforward and inexpensive exercise in the scheme of the substation and will have a materially positive effect on the landscape and amenity of the wider area.
61. Having regard to the relevant objectives and policies of the District Plan, we have concluded that the proposal is consistent with the relative objectives and policies on the whole and that, correspondingly, the proposed designation aligns with the intent of the District Plan as it relates to utilities.

Consideration of alternative sites

62. Under s.171(1)(b), the Territorial Authority is required to have particular regard to whether adequate consideration has been given to alternative sites if:
- (a) The Requiring Authority does not own the site; or
 - (b) It is likely that the work will have a significant effect on the environment.
63. Mr Page submitted that the requirement to consider alternatives does not arise, as Aurora has an agreement to purchase the site from the Queenstown Lakes District Council conditional on this Notice of Requirement, and also on the basis that the Section 42A report does not disclose any significant adverse effect on the environment. We concur with Mr Page that if the requirement to consider alternative sites did arise, our role is to determine that the procedure undertaken was appropriate and adequate, rather than to form a view as to the appropriateness of the final site selected (relative to other potential sites).³

³ See *Re Queenstown Airport Corporation Limited* [2012] NZEnvC 206 at paragraph 49.

64. In *Re: Queenstown Airport Corporation Limited*,⁴ it was made clear that the focus under s.171(1)(b) is on the process for site selection, not the outcome; that is, whether the Requiring Authority has made sufficient investigations of alternatives to satisfy itself of the alternatives proposed, rather than acting arbitrarily or giving only cursory consideration to alternatives. However, “adequate consideration” does not mean exhaustive or meticulous consideration.
65. Having considered the information provided to us in the assessment of environmental effects and the evidence of Ms Willmott and Mr Mulder, we are satisfied that the Applicant has given adequate consideration to alternatives as required under s.171(1)(b).

Whether the work and designation are reasonably necessary for achieving the objectives of the Requiring Authority

66. We concur with Mr Greaves that the NOR has demonstrated that a new substation is reasonably necessary for achieving the Applicant’s objectives to meet the electricity demand of the greater Wanaka region. The evidence contained in the NOR and AEE, together with the evidence given by Ms Willmott at the hearing, confirmed that both the switching station and the proposed new substation are necessary to ensure that Aurora meets its commitments to provide electricity for the greater Wanaka area in future. We accept that the proposed switching and substation is an integral part of Aurora’s long-term strategic network requirements and is critical to the effective implementation of its Asset Management Plan in the future.

Other Matters

67. Having had regard to the evidence before us and the Section 42A report, we do not consider that there are any other matters that we are required to have regard to under s.171(1)(d).

Part 2 of the Act

68. Part 2 of the Act details the Act’s purpose in promoting the sustainable management of natural and physical resources. To ensure that the designation meets the purpose of the Act, we are required to consider the Notice of Requirement under s.171 against Part 2 of the Act.
69. As Mr Greaves has noted, the designation will provide an electricity substation that will benefit the Wanaka community (and wider environs) in terms of its social, economic and cultural wellbeing. We have concluded from our assessment that the proposed designation adequately avoids, remedies or mitigates any adverse effects on the surrounding environment subject to the imposition of the recommended conditions. Overall, we consider the proposal to be consistent with the primary purpose of the Act.

⁴ Ibid.

Decision and Conditions

70. The Applicant did not propose a set of conditions with the NOR; however, in his evidence given at the hearing, Mr Anderson supported a positive recommendation being made “inclusive” of the conditions proposed in Appendix 1 to Mr Greaves’ Section 42A report. Following further information provided following the hearing, conditions 2, 3 and 8 have been amended and have subsequently been agreed with the Applicant. We are grateful for the effort that has been put into this process by Mr Greaves and the Applicant.
71. We recommend to Aurora Energy Limited, in accordance with s.171(2)(a), that the Notice of Requirement be confirmed subject to the imposition of the following conditions in accordance with s.171(2)(c):
 1. Prior to the construction of, or external alterations to, the switching/substation, the Requiring Authority responsible for the designation shall submit outline plans as required by section 176A of the Resource Management Act 1991, to the territorial authority for consideration.
 2. The maximum height for buildings shall be 7 metres set from a ground level determined as 315.38 masl.
 3. The maximum height for structures shall be 9 metres set from a ground level determined as 315.38 masl.
 4. The minimum setback distance from road boundaries for any building (except fences and structures) shall be 4.5 metres.
 5. The minimum setback from internal boundaries for any building (except fences and structures) shall be 2 metres.
 6. Signage shall be limited to one 2 m² sign along the road frontage.
 7. All fixed exterior lighting shall be mounted on buildings. The mountings shall be below the level of the roof pitch and directed away from the adjacent sites and roads.
 8. The Requiring Authority shall offer to provide to the Council a sufficient number of grade PB3 or PB5 plants for the purposes of establishing a line of screening vegetation on the south western terrace adjacent to the designated land with plants to be established at 1.5 metre spacing in one row of not more than 100 lineal metres (maximum 68 plant specimens). The offer shall contain a list of available plant species from a local plant nursery that are capable of attaining a height of not less than 3 metres at maturity. The offer shall be made as soon as the designation is confirmed and shall remain open for acceptance for 12 months after the commencement of work on site pursuant to any Outline Plan. If the Council communicates their acceptance of the offer to the Requiring Authority then the Council shall specify the plant species to be provided from the list and those specimens shall be delivered at the Requiring Authority’s cost before the end of the current or next planting season (whichever is the sooner). For the avoidance of doubt, the Requiring Authority shall have no responsibility to plant, maintain, or replace the plant specimens provided.
 9. A landscape plan shall be submitted as part of an outline plan of works. In this instance the landscape plan shall demonstrate the following:

- A boundary hedge or shelterbelt along the Ballantyne and Riverbank Road frontages and no less than 2 metres in width. The hedge or shelterbelt shall be maintained at a height no greater than 3 metres and no less than 2 metres as measured from the roadside of the designation boundary. Species shall be in keeping with the rural landscape such as non-wilding conifers, poplars, alders, or indigenous species and shall be planted at a density to provide a fast establishing and effective dense screen to a height of 3 metres within 5 years.
10. Planting shown on the approved landscape plan shall be implemented within 8 months upon completion of construction and thereafter be maintained and irrigated in accordance with the plan. If any tree or plant shall die or become diseased it shall be replaced in the next available planting season.
 11. Colours for all structures and buildings shall be in the range of natural browns, greys or greens as per the surrounding landscape with a light reflectivity value of between 5 and 25%.
 12. Noise:
 - (a) Sound shall be measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 and shall not exceed the following noise limits at any point within the boundary of any other site in the adjoining Rural General and Rural Lifestyle Zones:
 - (i) daytime (0800 to 2000 hrs) 50 dB LAeq(15 min)
 - (ii) night-time (2000 to 0800 hrs) 40 dB LAeq(15 min)
 - (iii) night-time (2000 to 0800 hrs) 70 dB LAFmax
 - (b) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance and comply with NZS 6803:1999.
 13. All engineering works shall be carried out in accordance with the Queenstown Lakes District Council's current (as at the date of submitting the outline plan of works) policies and engineering standards.
 14. With any outline plan of works, the Requiring Authority shall submit to the Principal Engineer at Council for review and certification, copies of specifications, calculations and design plans to detail the following engineering works:
 - (a) Formed legal access shall be provided to the site in accordance with Council standards, with no vehicular access permitted within 30 metres of the intersection of Ballantyne and Riverbank Roads. The existing informal crossing located at the intersection of Ballantyne and Riverbank Roads shall be permanently and physically closed off to vehicular traffic.
 - (b) All earthworks, batter slopes, and retaining shall be undertaken in accordance with the recommendations of the report by Tonkin & Taylor Ltd (dated October 2012, T & T ref: 892698).
 - (c) Foundations for all structures within the site shall be designed by a Chartered Professional Engineer in accordance with the recommendations of the report by Tonkin & Taylor Ltd (dated October 2012, T & T ref: 892698).

Dated this 12th day of February 2014

A handwritten signature in black ink, appearing to be 'JT' with a stylized flourish extending to the right.

Jane Taylor
for the Commission