

BEFORE THE HEARING PANEL FOR TAUPŌ DISTRICT COUNCIL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of a submission by Contact Energy Limited on
Proposed Plan Change 42 to the Taupō District Plan
relating to the Rural Environment and Rural Lifestyle
Environment

STATEMENT OF EVIDENCE OF MICHAEL STEVENS

ON BEHALF OF CONTACT ENERGY LIMITED

CORPORATE

10 AUGUST 2023

QUALIFICATIONS AND EXPERIENCE

- 1 My name is **Michael (Mike) Stevens**. I am the Head of Generation Geothermal at Contact Energy Limited (**Contact**) based at Wairākei A & B Power Stations near Taupō.
- 2 I have a Post Graduate Diploma in Business Management from the University of Waikato.
- 3 I have 23 years of experience in the electricity industry and have held multiple positions in the generation side of the industry.
- 4 I joined Contact in 2021 as Head of Project Delivery in the Generation and Trading Team, where I provided leadership, management, strategic support, and oversight of Contact Energy's portfolio of projects and growth opportunities within generation and trading. In 2022 I moved into the Head of Generation Geothermal role.
- 5 In my role as the Head of Generation Geothermal at Contact I am responsible for the following:
 - managing all aspects of Contact's Geothermal Resources, Operations, Engineering and Technical Services;
 - managing relationships with international equipment suppliers, contractors, landowners, iwi, and local and regional government with regard to geothermal generation activities, its effects and the wider opportunities it presents;
 - ensuring all site works and operations on the geothermal generating sites comply with legislative, regulatory, and environmental requirements are met. Ensure all resource consent conditions are met; and
 - engaging and communicating with relevant regional and local authorities, tangata whenua, neighbouring landowners and other environmental stakeholders about the environmental and cultural effects associated with Contact's geothermal business and operations.
- 6 Prior to joining Contact, I was the Manager for the Rotokawa/Nga Awa Purua geothermal power stations and Rotokawa geothermal reservoir, I was responsible for:

- management of the Rotokawa and Nga Awa Purua Joint Venture Businesses
- managing relationships with international equipment suppliers, contractors, landowners, iwi, and local and regional government with regard to geothermal generation activities on the Rotokawa geothermal reservoir, its effects and the wider opportunities it presents
- ensuring all site works and operations on the geothermal generating sites comply with legislative, regulatory, and environmental requirements are met. Ensure all resource consent conditions are met; and
- oversight of the Mercury reliability engineering team and outage management team.

BACKGROUND

- 7 In preparing my evidence I have reviewed at a high level the relevant parts of:
- the proposed Taupō District Plan Change 42 General Rural and Rural Lifestyle Environments (**PC42**);
 - Contact’s submissions and further submissions;
 - the Taupō District Council’s (**District Council**) section 42A reports for Plan Changes 38, 42 and 43, including the versions showing recommendations from the District Council’s supplementary evidence and additional supplementary evidence (**section 42A report (July version)**); and
 - the statement of planning evidence prepared by Mr Mark Chrisp (**Mr Chrisp**) on behalf of Contact.
- 8 This statement is a corporate one, and not expert evidence. I am authorised by Contact to provide this evidence on its behalf.

SCOPE OF EVIDENCE

- 9 The purpose of this statement is to provide:
- an overview of Contact, with a focus on its operations within the vicinity of the proposed Centennial Drive Rural Lifestyle Environment (**RLE**), the Oruanui RLE and the Tukairangi RLE; and

- outline the key reasons why Contact strongly opposes the re-zoning of these areas to RLE, and the importance of ensuring that existing, strategic renewable electricity generation assets and operations are appropriately protected from actual and potential reverse sensitivity impacts.

INTRODUCTION

- 10 Rather than repeating material in this statement of evidence, please refer to my statement of evidence in relation to Plan Change 38 which provides an overview of Contact’s electricity generation activities nationally and within the Taupō District. In summary, Contact owns and operates 12 Power Stations across the country, of which seven of these are located within the Taupō District (with another two power stations in the Taupō District currently under construction).
- 11 Part of PC42 introduces a Rural Lifestyle Environment (**RLE**) and applies this to certain locations within the Taupō District.
- 12 Contact is strongly opposed to the proposed Centennial Drive RLE (near Contact’s Te Huka and Tauhara Power Stations) (refer to **Figure 1**).

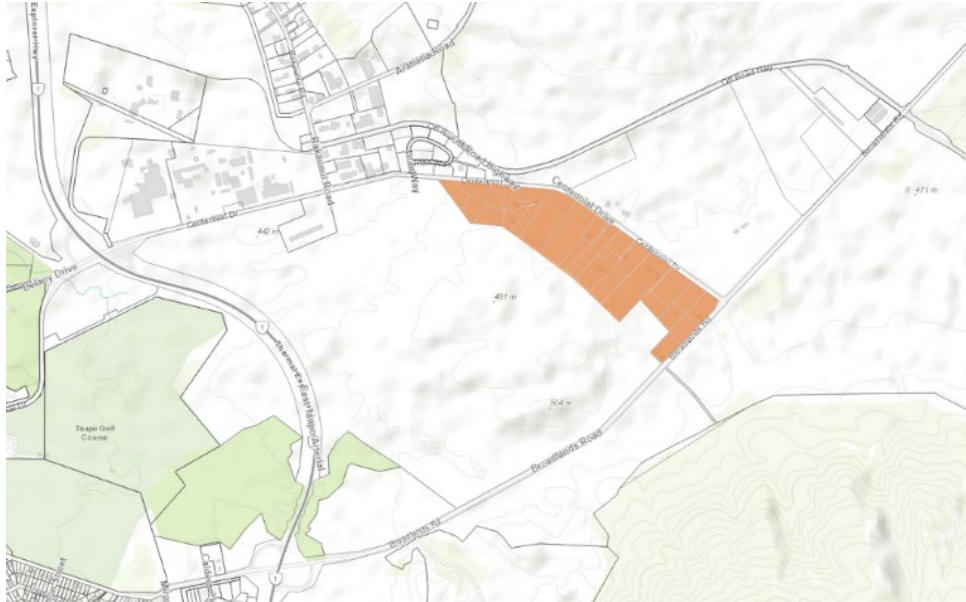


Figure 1 – Centennial Drive Proposed Rural Lifestyle Environment

- 13 Contact is also strongly opposed to the rezoning of parts of both the RLE on Oruanui Road and Tukairangi Road (near Contact’s Te Mihi and Poihipi Power Stations) (refer to the areas outlined in red on **Figures 2 and 3**).

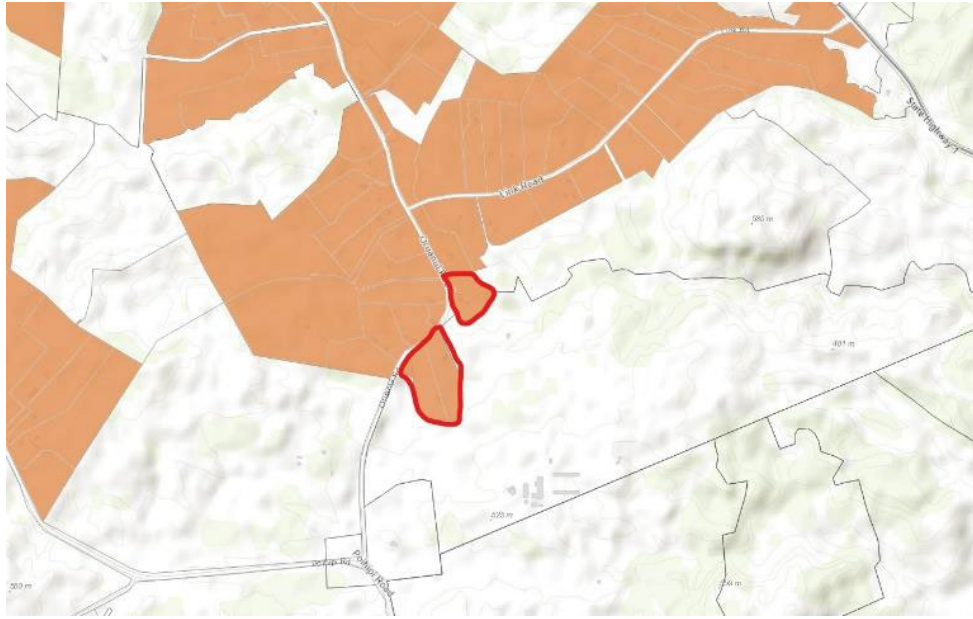


Figure 2: Oruanui Road Proposed Rural Lifestyle Environment

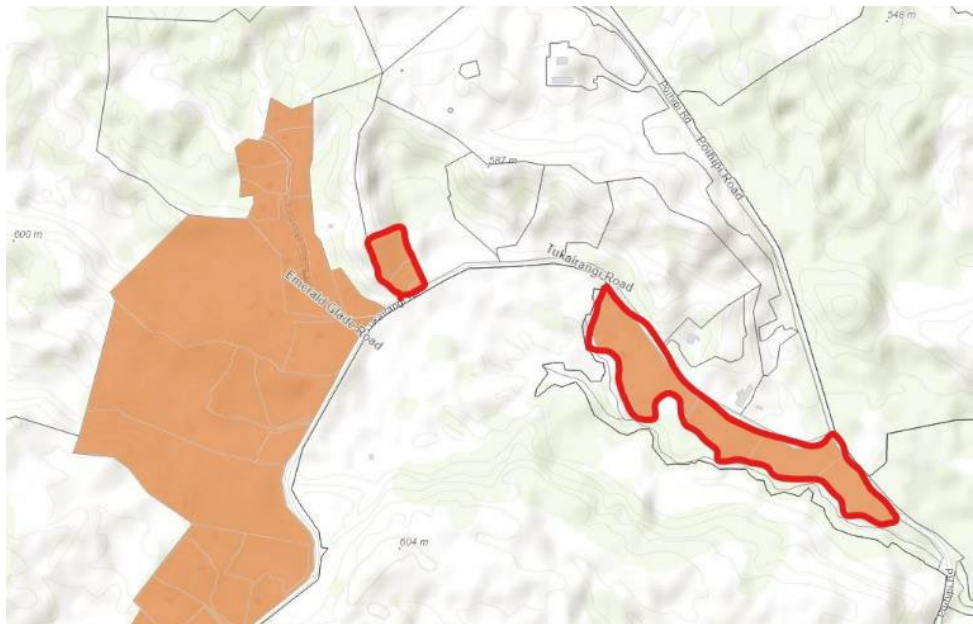


Figure 3: Tukairangi Road Proposed Rural Lifestyle Environment

- 14 Reverse sensitivity is a key issue for Contact. It is described as the vulnerability of an existing effects-generating activity to complaint from a new establishing and more sensitive one – like housing. Key to this principle is that the existing activity is lawfully operating within the ambit of its resource consent(s).

- 15 As noted in the section 42A report, there is a significant history of complaints from residents in the Centennial Drive area about Contact's activities – and specifically the steamfield activities such as well drilling and testing associated with its geothermal power stations. Importantly, Contact is acting within the ambit of its resource consents.
- 16 Rezoning the three areas listed above to a more-sensitive RLE will only serve to create false expectations about the rural-residential amenity within the surrounding environment which is dominated by large-scale renewable electricity generation activities (Te Huka, Tauhara, Te Mihi and Poihipi power stations) and, for Te Huka and Tauhara area, is also dominated by heavy industry, a motorsport park, racing track and an aerodrome.
- 17 Contact is seeking that these areas retain a Rural Environment zoning.

CONTACT'S GEOTHERMAL ACTIVITIES IN THE TAUPŌ DISTRICT

- 18 There are two key components to geothermal electricity generation in the Taupō District. The first relates to the physical power station itself, and the second to the steamfield activities, such as well-drilling and well-testing, that are undertaken within the Wairākei-Tauhara Geothermal System (refer to **Figure 4**).

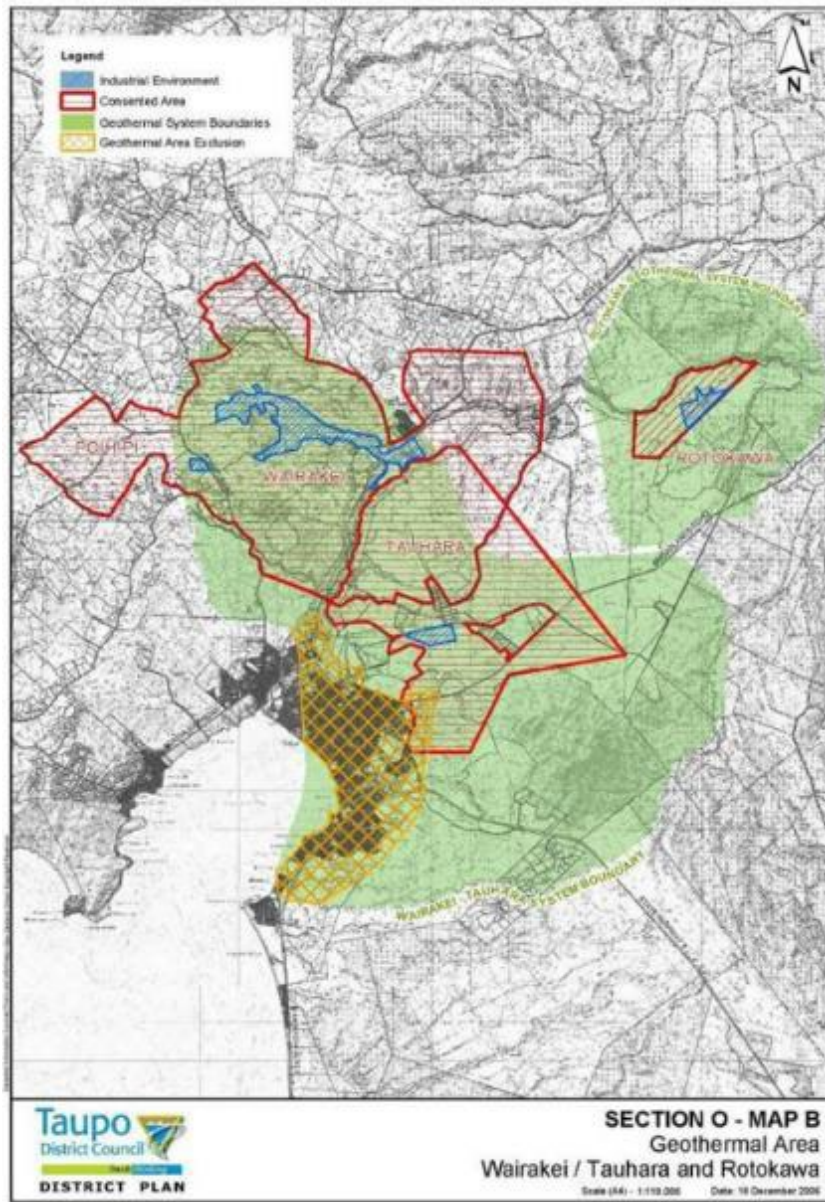


Figure 4 - Wairakei-Tauhara Geothermal System

- 19 As part of its operations, Contact holds resource consent to establish a geothermal well in most parts of the Wairakei-Tauhara Geothermal System (to the east of the East Taupō Arterial) subject to meeting parameters in its resource consents – including those that seek to maintain an appropriate distance between these activities and sensitive receptors (such as houses). The establishment of a geothermal well (i.e. the drilling) and the testing of the geothermal fluid resource does create noise, steam, vibration and odour. These activities have been lawfully established and comply with the conditions of the resource consent(s) including those relating to noise, vibration, and air discharges.

- 20 The potential for more dwellings to establish in proximity of this area is of considerable concern to Contact – and has the potential to significantly constrain its geothermal electricity generation operations which are recognised to be of national importance. It will also materially impact upon on-going investment and reinvestment decisions in geothermal electricity generation in the Taupō District.

RLE REZONING PROPOSALS

- 21 PC 42 recognises the importance of clearly delineating the General Rural and RLE environments (zones), and therefore allowing for separation of activities that are not compatible (sensitive ones like houses from industrial sites). This approach is well-founded and provides clear direction for the appropriate location of activities and the amenity that can be expected in that area. Contact supports this approach.
- 22 PC42 introduces several RLEs to provide specific areas within the District’s rural environment for lifestyle-living. In doing this, it seeks to separate incompatible activities to minimise the potential reverse sensitivity effects. Contact supports this approach, and the rezoning of parts of the rural environment for this purpose where it is appropriate.
- 23 Climate change is one of the most significant issues facing the entire planet. The ongoing operation of existing REG activities and the development of additional REG capacity – and its protection from potential reverse sensitivity effects - is one of the most important resource management issues facing the country (and the planet) as it seeks to address climate change through the decarbonisation of the economy.
- 24 Reverse sensitivity is a key issue for Contact, and its geothermal operations within the District. It is a known and on-going issue in the Centennial Drive area.
- 25 Reverse sensitivity is the vulnerability of an established land use to complaint from newly establishing ones that are *more* sensitive (such as residential activities). It describes a situation whereby a new sensitive activity (like a house) locates or expands in proximity to existing, lawfully established ones such as a geothermal power station – or an industrial zone. The expectations of amenity by the new residents moving into this area are akin to those that would be found in an urban environment. The smells, noises and light generated by these “heavier and more intense” operations – despite being compliant with resource conditions and permitted activity rules in the relevant district and regional plans, are not compatible with and

not considered to be appropriate by the new residents. Consequently, complaints are made. If left unchecked, restrictions and operational constraints are imposed on the existing (for example) REG or industrial activity. At worse, the existing activity is forced to shut down or relocate.

- 26 It is important to note that reverse sensitivity is not about an activity that is *non-compliant* – or acting outside the parameters of a resource consent. Rather, it is the perception of what is considered appropriate in the context of the area or what compliance should look like, that is the issue. To this point, Contact’s geothermal activities and operations operate within the ambit of the resource consents and performance standards associated with permitted activity rules. *And* – complaints are still received by District Council and Waikato Regional Council.
- 27 The time and cost associated with managing complaints is significant and, in some cases, it can take Contact up to 20 hours (or longer in some instances) to respond to a single complaint. It also impacts upon the resources and time of Council and its staff.
- 28 In this respect, Contact strongly opposes the Centennial Drive RLE and parts of both the RLE on Oruanui Road and Tukairangi Road. This is on the basis that both have the potential to create reverse sensitivity effects, and significantly constrain the on-going operations across Contact’s geothermal sites, and specifically at Te Huka, Tauhara, Poihipi and Te Mihi.

Centennial Drive RLE

- 29 The section 42A report author notes that a key reason for the re-zoning of the Centennial Drive properties is that this area is characterised by existing and long-standing rural-lifestyle block development. Contact does not dispute this point. What Contact disagrees with is the Council’s planning response.
- 30 Whilst this zoning may be appropriate in some locations, it fundamentally fails to recognise that the surrounding environment consists of heavy industrial activities including geothermal power stations (and their associated steamfield activities such as well-testing and well-drilling) that generate noise, steam, vibration, and odour. These effects are not typically expected in a “residential” environment, and they have been (and continue to be) the subject of frequent complaint despite being compliant with resource consent conditions.

- 31 As discussed in **Mr Chrisp's** evidence, in response to Contact's (and others') submissions, the section 42 author has recommended further changes to the policy and rule framework to *avoid* further subdivision and development of land within the proposed RLE. To this extent, the RLE zoning offers the Centennial Drive residents nothing in terms of further subdivision and development opportunities. Therefore, it's only purpose is to legitimise the amenity expectations of these residents. Living on, or moving to, a property zoned RLE comes with an expectation that the environment within which it sits has a level of amenity more congruent with that found in a residential one – peaceful, and largely free of operational noise, vibration, and odour.
- 32 I have no doubt that the introduction of more houses into this area will lead to more complaints – about our compliant activities. I understand that a consequence of this may be further constraints on our operations – particularly in terms of where geothermal wells can be drilled and tested in the future despite having the applicable resource consents.
- 33 Contact therefore seeks that this Centennial Drive RLE is removed, and a General Rural Environment or Industrial Environment one is applied to this area instead.

Oruanui Road and Tukairangi Road RLEs

- 34 For the same reasons outlined in the sections above, Contact strongly opposes the rezoning of parts of the Oruanui Road and Tukairangi Road RLEs as shown in **Figures 2** and **3** (above). These areas are close to Contact's Te Mihi and Poihipi Power Stations (respectively) and their associated steamfield activities.
- 35 Contact recently secured resource consents from both TDC to undertake a major expansion of the Te Mihi Power Station (up to an additional 180 MW) and Waikato Regional Council to continue operating within the Wairākei Geothermal Field which includes well-drilling, air discharges (odour and steam), and taking and discharging geothermal water.
- 36 Contact understands that rural-residential and lifestyle development has occurred in these locations. However, other factors also need to be considered such as the potential for reverse sensitivity impacts on strategic geothermal electricity generation and its associated steamfield activities.
- 37 Therefore, and in this case, the areas shown in **Figures 2** and **3** (above) should remain zoned General Rural Environment.

CONCLUSION

- 38 Reverse sensitivity is a key issue for Contact. There have been a significant number of complaints about Contact's lawfully established, and compliant steamfield activities across the District – and particularly from residents on Centennial Drive.
- 39 Contact does support Council's proposal to provide specific areas within the District's rural environment for lifestyle-living. This is an appropriate response to ensure incompatible activities are separated. However, consideration needs to be given to the potential for reverse sensitivity effects on existing geothermal electricity generation sites, including their associated steamfield activities, within proximity of a proposed RLE.
- 40 For these reasons Contact strongly opposes the Centennial Drive RLE and parts of both the Oruanui Road and Tukairangi Road RLEs (as shown in **Figures 1, 2 and 3** respectively). Contact seeks that these areas remain zoned General Rural Environment or, in relation to the proposed Centennial Drive RLE, it is zoned Industrial Environment.

Mike Stevens

10 August 2023