

IN THE MATTER

of the Resource Management Act 1991
("RMA" or "the Act")

AND

IN THE MATTER

of an application to the **BAY OF
PLENTY REGIONAL COUNCIL** by
**NGATI TUWHARETOA GEOTHERMAL
ASSETS LIMITED** for a change to the
conditions of a resource consent
(67151) that authorises the discharge
of geothermal water from the eastbank
of the Tarawera River

**MEMORANDUM OF COUNSEL FOR THE APPLICANT
IN RELATION TO PROCEDURAL MATTERS AND EVIDENCE**

21 MAY 2021

1. INTRODUCTION

- 1.1 Counsel for Ngati Tuwharetoa Geothermal Assets Limited ("NTGA") respectfully refer to the Second Minute of the Hearing Panel dated 7 April 2021 directing that expert evidence for NTGA is to be circulated on or before Friday, 21 May 2021 and setting the hearing dates as Thursday, 1 July 2021 and Friday, 2 July 2021.

Compliance with the Panel's timetable – request for amended directions

- 1.2 Preparation of evidence to meet the deadlines set out in that memorandum is well advanced and the evidence of seven out of nine of NTGA's witnesses is ready for filing with this memorandum.
- 1.3 However, NTGA has engaged an iwi consultant, Mr David Milner of Kahu Environmental, to undertake engagement with Te Runanga o Ngati Awa ("TRONA") to better understand their concerns and investigate whether some form of accommodation can be reached. Mr Milner's next hui with TRONA is on Monday, 24 May 2021. As a consequence, Mr Milner will not be able to complete his evidence until during the week of 24 May 2021.
- 1.4 We have a near final draft of Mr McLean's planning evidence. However, given the manner in which that evidence is structured, Mr Milner's evidence has the potential to alter Mr McLean's evidence throughout. For that reason, NTGA considers that filing a single statement of evidence late is far preferable to the complexity of producing primary and then supplementary evidence; an option which was considered.
- 1.5 On that basis, a further week is respectfully sought to file the evidence of those two witnesses. The upshot is that NTGA is required to seek amended directions that will enable evidence to be filed late, with subsequent dates adjusted accordingly and this memorandum respectfully requests such directions.

Ngati Tuwharetoa tikanga for the hearing

- 1.6 NTGA has received directions from a senior Ngati Tuwharetoa kaumatua and trustee of the Ngati Tuwharetoa Settlement Trust ("NTST"), Amorangi Te Rire, as to how he would

like the hearing to be conducted in accordance with Ngati Tuwharetoa tikanga. We wish to place that before you.

Purpose and scope of memorandum

- 1.7 Against that background, the purpose of this memorandum is to:
- (a) Address the two issues identified above;
 - (b) To assist the Panel, Council officers and TRONA to understand the case to be presented by NTGA by providing an overview of NTGA's evidence and a brief synopsis of NTGA's key propositions.
- 1.8 In doing so, this memorandum:
- (a) Addresses Ngati Tuwharetoa tikanga in terms of hearing procedures (Section 2).
 - (b) Sets out the directions sought for the late filing of cultural and planning evidence and the grounds for that request (Section 3).
 - (c) Provides an overview of NTGA's evidence (Section 4).
 - (d) Outlines where the specific information that the Panel sought in its Second Minute can be found in NTGA's evidence (Section 5).
 - (e) Sets out the key propositions of NTGA's case (Section 6).
 - (f) Set out NTGA's principal submission (Section 7).
- 1.9 Counsel respectfully request that Panel members (and others) read the evidence in the order in which it is presented.

2. NGATI TUWHARETOA TIKANGA FOR THE HEARING

- 2.1 Amorangi Te Rire has advised Counsel that the tikanga that Amorangi Te Rire would like to see observed at the hearing involves six actions / steps. They are as follows:
- (a) Karakia Timatanga Tangata Whenua
 - (b) Whakatauki/Mihi Tangata Whenua
 - (c) Reply by Manuhiri Anyone of visitors including commissioners
 - (d) Whakahoki mai te Mauri Tangata Whenua
 - (e) Korero Whakamutunga Tangata Whenua
 - (f) Karakia Tangata Whenua
- 2.2 It is acknowledged that it is a matter for the Panel to determine what protocols it would like to observe.
- 2.3 Amorangi Te Rire also wished to be the last to present evidence in order to close off all cultural matters (protection) and "bring the mana back to Ngati Tuwharetoa". NTGA's evidence has been arranged for Amorangi Te Rire to be the last witness, other than Mr McLean in relation to planning matters. That is acceptable to Amorangi Te Rire.

- 2.4 Given that the evidence has been pre-circulated, we would like to comply with Ngati Tuwharetoa's request as to tikanga, unless that was an issue for the Panel.
3. **LATE FILING OF CULTURAL AND PLANNING EVIDENCE – AMENDED DIRECTIONS SOUGHT**
- 3.1 The rationale for requiring a further week to file the evidence of Messrs Milner and Mclean was outlined at the outset.
- 3.2 The requested amendment to the timetable can be achieved without affecting the hearing date. The only real consequence is that counsel for NTGA will have two working days less to file NTGA's legal submissions and the Panel will have two working days less to read them – but will still have the submissions two working days before the hearing commences on 1 July 2021.
- 3.3 In light of the above, counsel respectfully request that:
- (a) Mr Milner's cultural evidence and Mr McLean's planning evidence be filed one week late, on 28 May 2021.
 - (b) That all other dates in the timetable be extended by one on week other than the date for NTGA file legal submissions which will be reduced by two days.
- 3.4 Counsel therefore respectfully request new directions from the Panel be issued, as follows:
- (a) NTGA expert evidence, other than planning and cultural evidence, is to be provided to the BOPRC Hearings Administrator on or before **Friday, 21 May 2021**. The Commissioners respectively direct and request that all other NTGA expert and non-expert evidence is also provided to the Hearings Administrator at the same time; [*Same as existing direction.*]
 - (b) NTGA's cultural and planning evidence is to be provided to the BOPRC Hearings Administrator on or before **Friday, 28 May 2021**; [*A week following the date originally directed.*]
 - (c) An addendum to the BOPRC section 42A report is to be provided on or before **Friday, 11 June 2021** assessing the additional NTGA expert evidence (and non-expert evidence) and outlining any amendments to the conclusions and recommendations (with reasons) contained in the 19 March 2021 Officers Report; [*A week following the date originally directed.*]
 - (d) If Te Rūnanga o Ngāti Awa (TRoNA) intends to call expert evidence in support of their submission they are directed to provide written statements of that evidence to the Hearings Administrator on or before **Friday, 25 June 2021**; [*A week following the date originally directed.*]
 - (e) If TRoNA intends to provide written evidence themselves, or have non-expert people appear on their behalf, then they are requested to also provide that evidence to the Hearings Administrator on or before **Friday, 25 June 2021**; [*A week following the date originally directed.*]
 - (f) If NTGA proposes to have Legal Counsel present opening legal submissions, it is requested that those legal submissions are provided to the Hearings Administrator no later than **Monday, 28 June 2021**. [*Three working days after it would have been required.*]

3.5 It is submitted that:

- (a) Neither BOPRC nor TRONA would be prejudiced by the amended arrangements - to the contrary, both have an extra week to consider the NTGA evidence filed today (21 May 2021).
- (b) The existence of the remaining sections of this memorandum will compensate the Panel and parties for the shorter period to consider NTGA's legal submissions.
- (c) These arrangements represent a procedure that is appropriate and fair in the circumstances.

4. **NTGA'S EVIDENCE - OVERVIEW**

4.1 NTGA's evidence has been organised in a series of tranches in order to logically traverse the issues relevant to the application, as follows:

- (a) Tranche 1 – technical scientific assessment of the effects of the East Bank discharge, comprising the evidence of:
 - (i) Dr Chris Hickey – water quality.
 - (ii) Dr John Burnell – geoscience.
 - (iii) Richard Chilton – air discharge.
- (b) Tranche 2 – commercial and economic considerations relevant to NTGA operations, comprising the evidence of:
 - (i) Spence McClintock – CEO, NTGA.
 - (ii) Phil Osborne – economics.
- (c) Tranche 3 – cultural considerations, comprising the evidence of:
 - (i) Dave Milner, consultant.
 - (ii) Bev Adlam – kuia and NTST trustee.
 - (iii) Amorangi Graham Te Rire – kaumatua and NTST trustee.
- (d) Tranche 4 – Planning assessment, comprising the evidence of Blair McLean.

4.2 Counsel respectfully request that the Commissioners read the statements in the order set out above.

4.3 Section 2 of each statement of evidence contains a summary of the evidence presented, to highlight key issues and assist the Commissioners with their deliberations.

4.4 We now address each tranche in turn.

Tranche 1 – environmental effects

4.5 The first tranche of NTGA's evidence addresses the existence, extent and degree of any potentially adverse physical effects as a result of continuing the East Bank discharge. The evidence of the three highly qualified and experienced experts is being filed with this memorandum.

Dr Chris Hickey – water quality

- 4.6 Dr Hickey has worked for over 40 years in environmental research and consulting in the area of contaminant impacts in fresh and marine waters, specialising in water quality guidelines and environmental toxicology. His evidence addresses the water quality and toxicological aspects of chemical contaminants in the NTGA discharges and the Tarawera River.
- 4.7 Dr Hickey has undertaken careful analysis on potential adverse effects of the discharge (fish, human health, etc.). His overall conclusions are as follows:

"15.3 Overall, I consider that the nature of the geothermal wastewaters discharged by NTGA is consistent with the current and historic natural geothermal inputs to the Tarawera River. My assessment of the NTGA discharges incorporates an "add to background" approach for effects assessment. Based on my analysis, I consider that there are no reasons from a water quality perspective not to change the conditions in the manner requested by NTGA."

Dr John Burnell – geoscience

- 4.8 Dr Burnell is a Senior Scientist with responsibility for modelling of geothermal reservoirs. During the last 35 years, Dr Burnell has been involved in many research and development projects related to modelling geothermal systems.
- 4.9 Dr Burnell's evidence addresses issues relevant to sustainability of the resource and to induced subsidence. Dr Burnell has conducted investigations into the impact of the Kawerau geothermal reservoir and the effects on the subsidence.
- 4.10 The results of those investigations predicted that:

"2.3 ... delaying reinjection of the East Bank river discharge until 2035 has a negligible effect (less than 0.1% for the extracted energy of all developers over 50 years) on conditions in the geothermal reservoir and, as a result:

- (a) will not impact the activities of the other developers / users of the geothermal reservoir; and*
- (b) is fully consistent with the long-term sustainability of the Kawerau geothermal resource.*

...

"2.5 ... there is ... to be a negligible amount of extra subsidence associated with the consent application scenarios over the production area and a minor decrease around the reinjection area."

- 4.11 In summary, reinjection of the geothermal fluid that is currently discharged via the East Bank discharge is not needed to sustain the geothermal resource, nor to address potential subsidence issues.

Richard Chilton – air discharge

- 4.12 Richard Chilton is an air quality expert with 22 years' experience in air quality assessment and management. His evidence addresses the issues relevant to the ongoing odour discharges from the East Bank Discharge Point to the Tarawera River.
- 4.13 Overall, Mr Chilton concludes that:

"7.1 In conclusion, I consider that:

- (a) *the odour effects arising from the continued discharge of odour are negligible; and*
- (b) *no additional mitigation measures to minimise odour emissions are necessary.*

7.2 *This conclusion is supported by the technical review undertaken for the BoPRC."*

4.14 Air quality / odour effects are not something that need trouble the Panel.

Tranche 2 – commercial and economic considerations

- 4.15 Compliance with the BOPRC recommendation would require the expenditure of \$35-45 million injection wells and pipework – for no gain based on the scientific evidence. This tranche of evidence addresses the commercial and economic consequences that such expenditure may have on NTGA operations in the present economic context – including the apparently imminent closure of the NST mill and the impact of Covid-19 on NTGA's customers.
- 4.16 The commercial consequences become adverse economic effects when the effects are felt in the local and regional economy, in terms of loss of jobs, etc. This tranche of evidence is critically important to the Panel's decision because these will be felt 'in the world' by workers and their whanau.

Spence McClintock – Tumuaki (CEO), NTGA

- 4.17 Mr McClintock is the Tumuaki (Chief Executive Officer) of Tuwharetoa mai Kawerau ki te Tai, which comprises a number of entities, including NTGA.
- 4.18 Mr McClintock's evidence addresses two significant factors that have altered since the 2016 consent was issued, namely :
- (a) Economic / commercial factors, including the likely closure of the Norske Skog Tasman ("NST") mill in the near future, which would have adverse commercial effects on NTGA and consequential impacts adverse the local and regional economy and adverse social, cultural, and economic effects on the local population and NTST beneficiaries.
 - (b) Increased scientific knowledge in relation to the need for and benefits (and potential risks associated with) reinjection. Reinjection is not required for reservoir sustainability. Further, NTGA analyses and reservoir monitoring have shown that injection benefits are uncertain, and injection has to be carefully managed to mitigate increased risk of reservoir cooling.
- 4.19 Mr McClintock also addresses:
- (a) Consultation undertaken by NTGA; and
 - (b) The Officer's report, particularly as regards comments in that report in relation to the Kawerau Steamfield Management Plan.

Phil Osborne – economics

- 4.20 Mr Osborne is an economic consultant providing consultancy services in respect of a wide range of property issues, including economic impact assessments, commercial and industrial market assessments, and forecasting market growth and land requirements across all property sectors.
- 4.21 Mr Osborne's evidence assesses the potential economic effects from NTGA's operations on the regional economy of the region and assesses the potential risks associated with

the application of a consent requiring the development of reinjection infrastructure within the current economic environment. .

4.22 Mr Osborne's key conclusions are as follows:

"7.1 *To justify the economic imposition and potential economic adverse effects identified above, I consider that significant countervailing benefits would need to be demonstrated. My understanding is that:*

- (a) *Reinjection is not required to maintain the KGF;*
- (b) *The discharge that would be discontinued to enable reinjection is having only minor adverse effects on the Tarawera River;*
- (c) *The only opposition to the discharge is on cultural grounds.*

7.2 *The Bay of Plenty economy is likely to experience direct economic impacts from the potential loss of businesses such as NST, imposing additional financial pressures on primary businesses such as NTGA operations is likely to increase the propensity of a domino effect, resulting in decreased economic activity throughout the supply chain and amplifying the economic effects on the regional economy.*

7.3 *In these circumstances, I consider that the most prudent course of action, from an economic perspective, is to enable the status quo to be maintained under the current conditions."*

4.23 These potential effects represent a core proposition of NTGA's case – things have changed, times are tough and the imposition of a cost of up to \$45 million on NTGA for no tangible scientific benefit in terms of the geothermal resource or physical effects cannot be justified.

Tranche 3 – cultural issues

4.24 This section considers the cultural issues arising by reference to TRONA's submission and Ngati Tuwharetoa's contrary position on the significance of discharges of geothermal to the Awa.

Dave Milner

4.25 If Counsel's request for amended directions is granted, Mr Milner's evidence will be filed on 28 May 2021.

Bev Adlam

4.26 Mrs Adlam presents her evidence as an elder (kuia) of Ngati Tuwharetoa and trustee of NTST, who was a signatory to the Deed of Settlement with the Crown in respect of Treaty grievances. The purpose of her evidence is twofold:

- (a) To provide historical context to the current application in terms of Ngati Tuwharetoa's journey to this point in time. Particularly relevant in the present context are the reasons for setting up NTGA and the strong desire to grow local businesses / the local economy and provide benefits to NTST beneficiaries and locals.
- (b) To provide Ngati Tuwharetoa's perspective on the ongoing discharge in terms of Ngati Tuwharetoa tikanga. In that regard:

"Ngati Tuwharetoa's cultural perspective is that the geothermal waters are an integral part of the natural life of the Awa and replenishing this aspect of the environment upholds the tikanga of Ngati Tuwharetoa."

Amorangi Graham Te Rire

- 4.27 Amorangi Te Rire is an ordained minister and a Tuawhenua and Kaumatua of Ngati Tuwharetoa and one of seven trustees of NTST.
- 4.28 Amorangi Te Rire's evidence outlines the deep cultural and spiritual connection of Ngati Tuwharetoa to the Kawerau area, and addresses the significance of the Taonga to Ngati Tuwharetoa and the fundamental aspects of that relationship relevant to the NTGA application. From a cultural perspective, Amorangi Te Rire's position is the same as Mrs Adlam's in terms of the tikanga of Ngati Tuwharetoa

Tranche 4 – planning issues

- 4.29 This is the final tranche of evidence in which planning consultant, Mr McLean, will draw together all of the strands of evidence and assess them in light of all relevant national, regional and local planning instruments and the RMA.
- 4.30 Mr McLean is a planning consultant with Enspire. He prepared the assessment of environmental effects which was filed in support of the NTGA application. His evidence contains a thorough and comprehensive assessment of the application (and its outcomes) in light of all relevant national, regional, and district policy statements and plans.
- 4.31 If Counsel's request for amended directions is granted, Mr McLean's evidence will be filed on 28 May 2021.
- 4.32 Mr McLean considers that the BOPRC section 42A report adopts an overly literal approach to the interpretation of the relevant planning instruments which has resulted in the author adopting view that cessation of the discharge in favour of reinjection is necessary to satisfy the planning instruments. However, the planning instruments only establish a policy preference in that regard, not a hard and fast requirement with the result that the section 42A report does not place sufficient weight on the fact that the current context represents a circumstance in which reinjection is not only not necessary but potentially harmful.

5. INFORMATION REQUESTED BY THE PANEL

- 5.1 In its Second Minute dated 7 April 2021, the Panel requested the following specific information relevant to the NTGA application:

"[7] Having read the material circulated to date, the Commissioners take this opportunity to request that the NTGA submissions and/or evidence address the following matters:

- a) How many geothermal wells NTGA currently operate and their location;*
- b) What reinjection, (if any), of NTGA spent geothermal fluid currently occurs;*
- c) Where that reinjection, (if any), occurs;*
- d) The reason(s) why reinjection of the EBDP discharge of spent geothermal fluid has not occurred to date given the very clear indication in the existing*

conditions of consent 67151 that the EBDP discharge to the River was to cease by 1 January 2021;

- e) The annual and total load of contaminants, (particularly heavy metals), that would be discharged to the Tarawera River over the next 14 years should the NTGA s127 application be granted; and*
- f) The effect of that contaminant load on downstream depositional environments including the Tarawera River estuary."*

5.2 NTGA has been careful to ensure that all of this information is provided as part of its evidence. The information requested can all be found in the evidence of Mr McClintock or Dr Hickey. Specifically:

- (a) Paragraph 3.7(a) and (b) of Mr McClintock's evidence identifies NTGA's ten production wells and six reinjection wells and Appendix 1 to his evidence shows the location of those wells, along with all other wells on the KGF, overlaid on an aerial photograph of the area. In addition, to assist the Panel:
 - (i) Appendix 2 to Mr McClintock's evidence contains a process flow diagram that shows all of the production and reinjection wells, geothermal separators, pipelines, clean steam plant, end users of steam and geothermal water (e.g., CHH Wood Products, NST, etc), and the discharges to the East Bank and West Bank of the Tarawera River.
 - (ii) Appendix 3 to Mr McClintock's evidence contains a photograph that shows the location of the end users of steam and geothermal water.
- (b) Paragraph 3.10 of Mr McClintock's evidence addresses the amount of geothermal water that is reinjected (864 tonnes per hour) and the amount that is discharged to the Tarawera River (764 tonnes per hour).
- (c) The annual load and the total load of contaminants discharged to the Tarawera River and the effect of those loads on depositional environments is addressed comprehensively in Section 12 of Dr Hickey's evidence.

5.3 In relation to paragraph 5.2(c) above, Dr Hickey's conclusion regarding deposition in Section 12 of his evidence is:

"12.17 Based on my experience with the lower Tarawera River, I consider that the high flow velocity and mobile pumice bed would not be considered a depositional environment. Thus, particulate suspended solids and particle-associated metal contaminants will not settle and accumulate in the river sediments nor in the small estuarine area near the mouth."

5.4 The reasons why reinjection of the East Bank discharge has not occurred to date are primarily addressed in Mr McClintock's evidence. In summary, those reasons are as follows:

- (a) Reinjection will be of negligible benefit to the sustainability of the reservoir.¹
- (b) Reinjection will have negligible effects with respect to subsidence.²

¹ McClintock evidence, paragraph 2.12(a).

² Ibid.

- (c) ReInjection comes with a risk of cooling of the reservoir that has become evident as a result of monitoring undertaken by NTGA since the consent was granted in 2016.³
- (d) Adverse effects on the water quality of the Tarawera River are minimal.⁴
- (e) The Tarawera River has always had geothermal inputs and the discharges from the East Bank and the West Bank are consistent with the tikanga of Ngati Tuwharetoa ki Kawerau.⁵
- (f) The capital costs of infrastructure for two new reinjection wells and associated pipelines and the cost of servicing the debt for that infrastructure is significant - \$35-45M capital cost, with a debt servicing cost of \$2.5M per annum based on capital expenditure of \$35M.⁶
- (g) The costs in (f) above are in addition to significant debt servicing costs that NTGA has to service until 2033 for reinjection wells and pipelines constructed in 2013 and a reinjection well pumping station constructed in 2018.⁷
- (h) NTGA's inability to renegotiate the legacy contract with NST that provides for a heavily discounted rate for steam supply to NST until 2035.⁸
- (i) ReInjection of geothermal water to the reservoir and minimisation of discharges to the Tarawera River is encouraged by the planning documents but is not mandated by them.⁹
- (j) NTGA's proposal is consistent with the Kawerau Steamfield Management Plan.
- (k) If NTGA knew in 2016 what it knows now it would never have agreed to the limitations regarding the East Bank discharge / discharge quantity.¹⁰

5.5 In addition to the above, the very real likelihood of NST's operations ceasing very soon has created even greater risk for the viability of NTGA's operations, with potentially very significant flow-on social and economic effects that could result. This is also addressed in Mr McClintock's evidence, and it is addressed in Mr Osborne's evidence as well.

6. KEY PROPOSITIONS OF NTGA'S CASE

- 6.1 In 2016, NTGA accepted conditions on Resource Consent 67151 requiring the overall discharge volume of geothermal fluid to the Tarawera River to be significantly reduced and discharges from the company's East Bank discharge point to cease by 1 January 2021.
- 6.2 NTGA has now applied to have these conditions changed so that the East Bank discharge can continue until 2035, when existing 'legacy contracts' expire. To the extent that NTGA would be given a two year grace period to get out of the AWA and commence reinjecting, the BOPRC officer's report effectively recommends that the change be declined.
- 6.3 Two different species of changes since the 2016 condition change, i.e., greater scientific knowledge in relation to potential effects and unfavourable economic developments,

³ Ibid, paragraphs 2.14 and 2.15.

⁴ Ibid, paragraph 2.12(b).

⁵ Ibid; Te Rire evidence, paragraph 3.10.

⁶ Ibid, paragraph 2.8.

⁷ Ibid, paragraph 2.9.

⁸ Ibid, paragraph 4.5.

⁹ Ibid, paragraph 7.7.

¹⁰ McClintock evidence, paragraph 2.16.

have resulted in the relevant conditions becoming redundant and a source of risk. A decision to seek a change to those conditions to eliminate or reduce this risk was made.

Greater scientific knowledge

- 6.4 Scientific analysis undertaken by esteemed experts in air quality, water quality and geoscience has revealed / confirmed that:
- (a) Odour effects are acceptable, with no further mitigation being necessary.
 - (b) Delaying reinjection until 2035 has a “negligible” effect in terms of either the enthalpy of the KGF or subsidence.
 - (c) The discharge has no more than a minor effect on water quality and does not pose a risk in terms human health.
- 6.5 Thus, in terms of recent scientific analysis, any potential adverse physical effects of the continued discharge are minimal / no more than minor and would not stand in the way of the change of conditions sought.
- 6.6 At the time of the 2016 application, it was known that reinjection is not necessary to arrest subsidence or maintain the enthalpy of the geothermal field. This has been confirmed. In assessing the application, this factor needs to be considered in light of potential risks associated with reinjection in terms of cooling of the geothermal reservoir and the potentially massive costs associated with getting it wrong.
- 6.7 NTGA’s position is that this factor weighs in favour of the NTGA application – why take a potentially significant risk if you don’t need to?

Commercial / economic considerations

- 6.8 If NTGA is required to discontinue the East Bank discharge and reinject that fluid, the capital costs associated with the drilling of new wells and associated pipework would be \$35-45 million. Interest costs associated with servicing the loans would be \$2.5 million/annum.
- 6.9 NTGA acquired the Crown’s steamfield assets in 2005 and, with them, a number of ‘legacy contracts’ to supply power to a number of existing operators at a cheap (effectively subsidised) price until 2035. (That is the relevance of that date in the NTGA application.) One of these contracts was with NTGA’s biggest customer, NST, to whom it supplies 2,000,000 tonnes / annum.
- 6.10 NTGA plays a very significant role in the local and regional economy generating \$23M per annum and creating 128 jobs (including indirect and induced impacts). Direct uses of NTGA outputs generate a further \$195M per annum and support over 2,000 jobs.
- 6.11 NTGA faces commercial risk associated with exposure to a small customer base and very significant costs associated with any expansion of its business.
- 6.12 Economic circumstances have changed very significantly since 2016. Covid-19 has had a significant impact on the energy and manufacturing sectors. Some of NTGA’s customers curtailed production, including NST, and NTGA sustained losses as a result.
- 6.13 Of immediate significance to the NTGA application is the likely closure of the NST mill, which is also being attributed to Covid-19. NTGA is doing the best it can to plan for that eventuality but, all planning aside, it is clear that that closure will have a very significant impact on NTGA which will, in turn, have consequences for the rest of the local and regional economy in terms of transfer of economic benefits and employment.
- 6.14 NTGA’s basic position is that, in the present circumstances, it would be very unwise to impose on NTGA costs of up to \$45 million to implement reinjection – and therefore

risk the consequential effects on the local and regional economy, especially when scientific experts confirm that:

- (a) Removing the geothermal fluid from the Awa is not necessary nor addresses any existing adverse effects; and
 - (b) Reinjection is not necessary to sustain the KGF or address subsidence.
- 6.15 In light of the above, the only issues that would militate against a grant of consent relate to policy / planning issues and cultural issues.

Policy / planning issues

- 6.16 BOPRC's section 42A report tends to accept that actual 'physical' effects of the existing operation is minor. The rationale for the recommendation that the change sought not be granted is because the thrust of relevant national and regional policy / planning instruments and the Ngati Awa Environment Plan is to reduce the discharge of contaminants to surface waters and encourage reinjection.
- 6.17 NTGA's position is that:
- (a) The relevant planning and policy instruments cannot be seen in a vacuum – as an end in themselves – but rather by adopting a purposive interpretation having regard to the purpose and intent of those documents.
 - (b) The analysis in the section 42A report is flawed insofar as it applies the provisions relating to water quality and reinjection as the 'be all and end all' without adequately considering the factual context – the policy tail wagging the real-world dog.
- 6.18 As regards (b), NTGA's position is that:
- (a) The BOPRC report does not place sufficient weight on the clear evidence that the discharge is having only minor adverse effects and that reinjection will have negligible effect with respect to the sustainability of the KGF and subsidence.
 - (b) While the planning instruments express a policy preference for reinjection of geothermal fluid, i.e., to minimise discharges of geothermal fluid to surface waters and to maintain reservoir pressure (to avoid subsidence and enthalpy decline), that does not apply in all cases – the present being a classic example.
 - (c) That is why none of the instruments impose a hard and fast requirement to reinject.
- 6.19 In light of the evidence presented, there is, despite the policy preference for reinjection, no policy basis for justifying a requirement to reinject in these circumstances.

Cultural considerations

- 6.20 Four iwi have recognised interests in the Tarawera Awa, being Ngati Tuwharetoa, Ngati Awa, Ngati Rangitihi, and Ngati Makino. Ngati Tuwharetoa and Ngati Rangitihi have provided their written approval to the NTGA application and Ngati Makino did not make a submission.
- 6.21 The only submitter opposing the NTGA application is TRONA. TRONA's position reflects an 'in principle' opposition to discharge into the Awa, irrespective of whether scientific analysis demonstrates that the adverse physical effects are minor at most. In other words, the Panel is assessing a purely cultural effect.
- 6.22 Ngati Tuwharetoa's support for the proposal is straightforward – the evidence of a senior kaumatua and kuia are that the geothermal influence is part of the natural life of the

Awa and replenishing this natural occurrence within the Awa through the NTGA discharge upholds the connection with their ancestors and allows river life to continue, all of which upholds the tikanga of Ngati Tuwharetoa.

- 6.23 NTGA has invested significant effort in attempting to engage with TRONA in light of their historic opposition to the discharge. A technical meeting to discuss scientific matters and issues raised in TRONA's submission and CIA were both cancelled by TRONA. NTGA has now engaged a cultural advisor who is engaging with TRONA with a view to finding a solution acceptable to TRONA and NTST / NTGA.
- 6.24 Of significance is the Ngati Rangitihi Claims Settlement Bill, which is likely to be enacted this year. It will establish a statutory body called the Tarawera Awa Restoration Strategy Group comprising Ngati Tuwharetoa (Bay of Plenty) Settlement Trust, Te Mana o Ngati Rangitihi Trust, TRONA and Ngati Makino Iwi Authority along with all other statutory agencies with the purpose of developing a restoration strategy for the Tarawera Awa in a document to be entitled Tarawera Awa Restoration Strategy.
- 6.25 The mana of that document is reflected by a requirement that in developing regional policy statements and plans, councils will be required to "recognise and provide for the common vision, objectives, and desired outcomes contained in the Strategy Document" (Clause 137).
- 6.26 The machinery that will be established by that legislation is highly relevant to the current consent, to such an extent that we are proposing a review condition that will enable the conditions of the resource consent to be reviewed in light of the Strategy Document.
- 6.27 Little further can be said in relation to cultural issues until Mr Milner's evidence is available.

Part 2 of the RMA

- 6.28 To the extent that the Panel may wish to consider the NTGA application in the context of Part 2 of the RMA (even in the context of section 104(1)(c)) of the RMA), NTGA's submission is that granting NTGA's change of conditions rather than curtailing that discharge in favour of reinjection is consistent with and promotes the sustainable management purpose of the RMA insofar as it will:
 - (a) Better enable NTGA to weather the current economic storm and, as a consequence, enable local businesses and families (in particular the beneficiaries of NTST) to provide for their social and economic wellbeing;
 - (b) The ongoing discharge will provide for Ngati Tuwharetoa's cultural wellbeing by providing for the tikanga of Ngati Tuwharetoa;
 - (c) Having no adverse effects on the ability of the KGF to provide geothermal heat /energy to meet the reasonably foreseeable needs of future generations; and
 - (d) Safeguard the life supporting capacity of the Tarawera Awa by avoiding or mitigating any potential adverse effects.
- 6.29 In terms of section 6(e), given Ngati Tuwharetoa's position in relation to the cultural significance of the ongoing discharge, granting the NTGA application will recognise and provide for the relationship of Ngati Tuwharetoa and their culture and traditions with the Tarawera Awa.
- 6.30 In terms of sections 6(e), 7(a), and 8, NTGA has obtained a cultural effects assessment from TRONA, has engaged (and is engaging) in good faith to attempt to achieve a resolution of their concerns.

6.31 In terms of section 7, granting the change of conditions requested will:

- (a) Enable the ongoing efficient use of the Kawerau geothermal resource without putting that resource at risk as a result of unnecessary reinjection in terms of section 7(b);
- (b) Maintain amenity values and the quality of the Tarawera Awa (sections 7(c) and (f)).

7. **PRINCIPAL SUBMISSION**

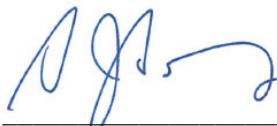
7.1 Having regard to the foregoing, and at the risk of oversimplifying the matter, it would appear that the only factors/considerations that might stand in the way of a grant of consent to the NTGA application relate to:

- (a) An overly literal interpretation by the BOPRC reporting planner. In that regard, it is acknowledged that there is a strong policy support for removing contaminants from water bodies and in favour of reinjection of geothermal fluid. However, any such policies must admit exceptions and the present application is a circumstance in which the discharge of contaminants is acceptable both in scientific terms and culturally (if Ngati Tuwharetoa's position in that regard is accepted)¹¹.
- (b) The 'in principle' opposition by TRONA who have steadfastly maintained their position that any discharge of geothermal fluid to the Tarawera Awa is unacceptable. In that regard, NTGA's position is that this position overlooks the existence of geothermal fluid in the Awa and that it must be relevant in assessing the TRONA submission that the scientific evidence is that there are no more than minor adverse physical effects on the Awa.

7.2 On that basis, it is submitted that the economic risks associated with requiring NTGA to expand the \$35-\$45 million in the current volatile economic climate, and the adverse social, economic and cultural effects that may follow weigh heavily in favour of granting the NTGA application, particularly as there are no more than minor adverse effects of the discharge and reinjection is not required to sustain the geothermal resource (and may well pose some risks).

7.3 Counsel are grateful to the Panel for its consideration of this memorandum.

DATED this 21st day of May 2021



S J Berry



C Malone

Counsel for Ngati Tuwharetoa Limited

¹¹ Note also in that regard that Ngati Rangitihi have provided a written approval to the application.