

**BOARD OF INQUIRY
TE MIHI GEOTHERMAL POWER STATION PROPOSAL**

In the Matter of the Resource Management Act 1991

And

In the matter of resource consent applications by Contact Energy Limited
in respect of the Te Mihi Geothermal Power Station Proposal

REBUTTAL EVIDENCE OF STEPHEN GRAEME DAYSH

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Introduction

1. My name is Stephen Graeme Daysh. I am a Director and principal planner in the Napier Office of Environmental Management Services Limited, a specialist environmental consultancy company. I refer the Board of Inquiry to the statement of my qualifications and experience in my evidence in chief. I reaffirm my commitment to comply with the code of conduct for expert witnesses in the Environment Court.
2. In this brief of evidence, I shall respond to Mr Burton's Section 42A Report (Version 1) dated 17 June 2008 and to the evidence of:
 - Mark Brockelsby (for Waikato Regional Council);
 - Gemma Platts (for Taupo District Council);
 - Melissa Slatter and Robert Swears (for Transit New Zealand);
 - Richard Matthews (for Geotherm Group (In receivership));
 - Alistair McLachlan (for himself, Mrs McLachlan and MacPower Limited).
3. With the exception of my response to Mr McLachlan, my evidence relates to conditions which might attach to the consents sought by Contact Energy Limited ("Contact"), if the Board of Inquiry decides to grant those consents.
4. With my evidence in chief, I attached as exhibits SGD1 and SGD2, a suggested set of consent conditions for each of the resource consents sought.
5. Having reviewed the evidence for submitters and the comments of Mr Burton in his section 42A report, I have revised the set of conditions produced with my evidence in chief. My revision of the proposed Taupo District Council conditions from Exhibit SGD1 is attached as Exhibits SGD7 and 8 being a track changes and a clean version respectively. My revision of the proposed Waikato Regional Council conditions from Exhibit SGD2 is attached as Exhibits SGD9 and 10 being a track changes and a clean version respectively.
6. I propose to address the evidence of each witness who has discussed the wording of conditions in turn, directing the Board's attention where

applicable to amendments I have made in response in the revised conditions attached.

David Burton

7. At section 11.4 of the Section 42A Report, Mr Burton queries whether a set back buffer from surface water courses is required in consent 116787. My proposed condition 4 (b) of this consent already precludes runoff of water from land associated with this discharge. I do not think a buffer is therefore required.

Mark Brockelsby

8. Mr Brockelsby suggests three amendments to the draft conditions attached to my evidence in chief. I agree with the points Mr Brockelsby has made in his section 7.5 regarding the need for an additional review condition and consistency in cross referencing consents 116786 and 116787 to the Wairakei General Conditions. I have amended the conditions accordingly. Dr Stevenson discusses in his rebuttal evidence the further issue Mr Brockelsby raises associated with ambient air monitoring at his paragraph 7.4. Dr Stevenson accepts that the extent and duration of ambient air quality monitoring is a balancing process. Given Dr Stevenson's assessment I consider Mr Brockelsby's position is reasonable and I have amended the proposed relevant consent 116789 conditions accordingly.
9. At paragraph 7.2.4, Mr Brockelsby also indicates that he is supportive of a buffer zone condition for reinjection in the vicinity of the Geotherm Group Limited (in receivership) ("Geotherm Group") property. I discuss this issue later in this brief of evidence in relation to Mr Matthews' discussion of the point.

Gemma Platts

10. Ms Platts suggests a number of technical amendments to my draft conditions relating to:
 - (a) Noise measurement;
 - (b) Wording of landscape condition;
 - (c) Hazardous substance management;
 - (d) Wording of protocol on cultural issues.

11. In her evidence Ms Platts also discusses the desirability for a condition of consent to require a construction management plan as being necessary. She has not as far as I could see, however, requested any additional conditions and I believe this is already appropriately covered by my proposed conditions 16 and 17 on consent number RM070304.
12. As regards, noise management (point (a) above) I have accepted Ms Platts' amendment, but substituted reference to the 2008 versions of the standards she refers to.
13. I have accepted her wording on hazardous substances (Point (b)).
14. I have also largely accepted Ms Platts' suggestions as to the wording of the landscape conditions, except for one minor amendment where I deleted a duplicated reference to the timing of planting.
15. I discussed the issues regarding the wording of the cultural / archaeological protocol in my evidence in chief. I now understand that the amended protocol wording Ms Platts seeks is acceptable to Ngāti Te Rangiita ki Ōruanui. I am therefore happy to amend the conditions to the three TDC consents to reflect that position, but would note I have made some slight amendments to the advice note to better reflect my understanding of the legal position.
16. I have also updated the Cultural Exclusion Zone Plan in schedule one in Exhibit SGD8 to reflect recent consultation with Ngāti Te Rangiita ki Ōruanui regarding buffer areas around cultural sites.
17. As regards Ms Platts' position in relation to traffic effects, she effectively adopts the evidence of Mr Swears. I discuss the issues raised by her evidence in the section following.
18. Ms Platts did not provide a "track changes" version of my proposed conditions but I have done a visual check and have noted two additional suggested changes she does not discuss in her evidence. These are:
 - i. An amendment to alter the frequency of potential consent condition reviews from every four years to once every year for the first five years and then four yearly after that period.

I do not agree with this change. The construction phase of the project is proposed to be managed through a number of management plans that

require development and approval by the Council. It would be unreasonable for the consent holder to be subject to consent condition reviews while the construction project proceeds. A major project of this kind is undertaken pursuant to carefully drafted construction contracts that lock in compliance with all consent requirements, which will include in this case approved management plans.

- ii. A new advice note stating that future pipelines associated with the development may require further resource consents.

I do not agree with this advice note. Pipelines associated with the development are covered by the land use consent sought. Furthermore, expansion of the existing steamfield and pipe network is a permitted activity in the Rural Environment and is not subject to any performance standards.

Melissa Slatter and Robert Swears

19. Since preparing my evidence in chief, I have read the evidence of Ms Slatter and Mr Swears for Transit New Zealand. I have also had the benefit of a number of constructive discussions with them. The outcomes of that process are shown in the track changes to the Traffic Management Conditions within consent number RM070304 shown in my Exhibit SGD7. In summary the principal changes I recommend are:
 - (i) Inclusion of a new specific condition covering the construction of slip lane at the State Highway One / Poihipi Road intersection.
 - (ii) A number of changes to the objectives of the proposed Construction Traffic Management Plan to better recognise the need for effective management of Te Mihi construction traffic during peak traffic flow periods in the area, and to provide clearer guidelines for the preparation of this document.
20. The major point of difference between my recommendations and the evidence of Ms Slatter and Mr Swears is the use of the refined Construction Traffic Management Plan objectives rather than the specific “hard-wired” consent obligations proposed by Mr Swears. I believe this management plan approach to be appropriate in circumstances where the location of the construction workforce is by no means certain (large parts of the workforce could in practice come from centres like Tokoroa or Rotorua creating entirely different traffic issues to those if the workforce is largely Taupo-

based) and thus flexibility is required as to how the Construction Traffic Management Plan objectives might best be met.

21. From my discussions with Ms Slatter in particular, I believe she now accepts in principle that this is a more workable approach to the conditions around traffic management in this case.

Richard Matthews

22. Mr Matthews has explicitly premised his evidence on his belief that the existing resource consents held by Geotherm Group form part of the existing environment that needs to be considered in relation to the potential environmental effects of Contact's proposed Te Mihi development. My understanding of the law in relation to this issue that is whether this is so depends on whether the Board is satisfied that the Geotherm Group resource consents are likely to be exercised. This issue was directly addressed in the evidence in chief of Mr Carey. Professor O'Sullivan's evidence is also relevant. At the time I wrote my evidence in chief, I had seen no technical assessment which would cause me to doubt Mr Carey's opinion (that it is unlikely that the Geotherm Group consents will be able to be exercised in the manner originally intended).
23. Given, however, that this is obviously a contested factual issue, I have considered Mr Matthews' evidence on the basis that his starting premise (that the Geotherm Group consents are part of the existing environment) might be correct. I have therefore discussed the condition framework which would be appropriate in that event.

General Comments

24. Mr Matthews prefaces his detailed discussion of resource consent conditions with some general comments in his paragraphs 5.1 – 5.5. I note Mr Matthews' comment that Geotherm Group should gain some "*protection*" from the exercise of the new consents sought (his paragraph 5.3). If the Geotherm Group consents are indeed part of the existing environment, then I think that this comment sets out the legal position as I understand it, namely that the activities authorised by the Geotherm Group consents should gain some protection; not absolute protection, but certainly some protection.

25. Mr Matthews goes on to suggest that the General Conditions to Contact's existing resource consent 104718 are focused on existing Wairakei Power Station operations and require modification to address the potential effects that the proposed Te Mihi power station activities would have on the Geotherm Group resource consents (his paragraph 5.5). It is not altogether clear to me whether Mr Matthews is suggesting that the existing Wairakei General Conditions should be amended as they apply to the Te Mihi reinjection application (i.e. to create a parallel of General Conditions for the Te Mihi reinjection consent), or more widely, to govern the implementation of, for instance, the existing Wairakei reinjection consent 104718. I have assumed the former because the existing consents and associated General Conditions are not before the Board of Inquiry in this process.
26. Proceeding on that basis, I believe that Mr Matthews has failed to take account of the extent to which the existing Wairakei General Conditions already provide the "*protection*" he is seeking. I will discuss this further below. In addition, in my view, the amendments to conditions sought by Mr Matthews would produce a series of inconsistencies as between the different consents that Contact would hold for reinjection of geothermal water within the boundaries of the Wairakei-Tauhara Geothermal System. That in turn would create administrative problems for the consent authority and the consent holder associated with ongoing management planning of the System. It also appears to be contrary to the regional policy emphasising the need for integrated management within Development Geothermal Systems like the Wairakei-Tauhara Geothermal System (Policy Two, Section 3.7.2.1 of the operative Waikato Regional Policy Statement).
27. A related theme running through Mr Matthews commentary on conditions is the idea that a number of the consent conditions on the Geotherm Group consents should be mirrored in the Te Mihi consent conditions (in particular conditions on the Te Mihi reinjection consent).
28. In my view, this approach fails to take account of relevant background to the Geotherm Group consents. The issues surrounding the Geotherm Group and Wairakei consents were extensively canvassed in the 2004 first instance hearings for both applications (and in the Environment Court in relation to the Wairakei consents). I was involved in both application processes, advising Contact. Mr Matthews may not be aware that that the Geotherm Group consents were framed in a particular way because of the inherent characteristics of that project, just as the Contact Wairakei

consents were framed in a different way, also because of the characteristics of that operation. While, in some ways, those differences reflected the then priority between applications (Contact having priority), a position which has now been reversed, that aspect of the consent conditions played a relatively small part in how they were framed.

29. In particular, the Geotherm Group consents reflected the fact that theirs was a substantial development on a small site on the margins of the Wairakei-Tauhara Geothermal System. The proposed take of 70,000 tonnes per day of geothermal water (and its reinjection) in relation to the size of the site meant that, in practice, Geotherm Group would have very limited flexibility to alter its operations if, for instance, those operations had adverse effects beyond Geotherm's boundary. The other factor is the Geotherm project is sited very close to Contact's existing Pohipi production wells with no set back from the boundary. This practical reality was addressed in a number of ways. Thus, for instance, the Geotherm Group consents are premised on reinjection of essentially the total volume of geothermal water extracted as a means to ensure that the development would make no contribution to subsidence elsewhere in the System.
30. By contrast, the Contact Wairakei consents reflect the fact that Contact has a much greater degree of flexibility in its operations, because it has access to a much larger land area within the system boundary. Its consents are explicitly premised on an adaptive management approach driven by the Discharge Strategy (in relation to management of discharge options) and more generally the System Management Plan. The objectives of the Discharge Strategy were the subject of contention throughout the process which led to the ultimate grant of the Contact Wairakei consents. The Environment Court resolved in its May 2007 decision what the competing priorities should be in management of discharges, in particular, that the primary objective should be addressing the adverse effects of subsidence. It is relevant to note that two of the secondary objectives of the Discharge Strategy are:

“Facilitating further extraction of energy from the Wairakei/Tauhara Geothermal System”

and

“Integrating takes, uses (including cascade users), reinjection/injection, and other discharge methods”.

31. I read those secondary objectives as placing an emphasis on Geotherm Group's extraction of energy and requiring integration of Contact's reinjection/injection and Geotherm Group's takes (assuming it exercises its consents), but subject in both cases to the primary objective of addressing the adverse effects of subsidence.
32. It is these provisions, together with the discretion conferred on Waikato Regional Council (General Condition 3.10 of the Wairakei General Conditions) to require changes to the Discharge Strategy to better avoid adverse effects arising from reinjection/injection which in my view provides the type of protection Mr Matthews is seeking in his evidence.
33. Mr Matthews suggests that conditions specifying buffer zones relating to the reinjection of separated geothermal water and condensate from the Te Mihi proposal are required. I would observe that there is no such buffer zone specified in relation to the exercise of Contact's existing Wairakei reinjection consent 104718. As can be seen from the map attached to Mr Carey's rebuttal evidence (Exhibit BSC8), the consent boundary for Contact's consent 104718 comes right to the boundary of the Geotherm Group consent area, and in fact overlaps as part of the Geotherm Group consent area. Any potential interference effects resulting from exercise of consent 104718 will need to be managed under the Wairakei General Conditions relating to the formulation, and review of the Discharge Strategy, as I have noted.
34. There is a risk that imposition of a buffer, depending of course on the extent of that buffer, might have the result that an activity is authorised under one consent (i.e.104718), and the identical activity is constrained under a different consent (i.e.116786). In my opinion this could have absurd administrative consequences, with Contact potentially having to nominate the consent that reinjection into a particular well was occurring under.
35. Mr Brockelsby has, however, stated a preference for the Regional Council's point of view for some buffering between Contact reinjection under the Te Mihi consent and the Geotherm Group project area. Mr Carey has identified in his evidence buffer areas which could potentially apply to Contact's exercise of its Te Mihi reinjection consent. As Mr Carey has noted, these are not areas which Contact is likely to view as potential reinjection prospects in any event, but provision of a buffer may provide greater certainty for Geotherm Group that the exercise of the Te Mihi

re injection sought will not have a significant adverse effect on the exercise of their consents (refer Professor O'Sullivan's rebuttal evidence).

36. I have suggested conditions to implement the buffer mechanism accordingly. I have also picked up a suggestion of Mr Brockelsby's that the buffer should apply for the period ending at the lapse date specified in the Geotherm Group consents and then, thereafter, only if those consents are being exercised at a reasonable level. I have adopted the figure of 6,000 tonnes per day as the trigger because the Proposed Waikato Regional Plan uses this figure to distinguish medium sized from large geothermal takes.

Condition 2, Consent 116786

37. Mr Matthews suggests that consent 116786 should have its own set of General Conditions, differing from the General Conditions applying to consent 104718. As already discussed, I believe that this approach is administratively cumbersome and is likely to be unworkable because it will produce confusion in the exercise and administration of the different reinjection consents Contact will hold. I do not support Mr Matthews suggested approach.

Condition 4, Consent 116786

38. Mr Matthews seeks to provide a special process for reinjection wells outside of the specific areas modelled by Professor O'Sullivan in his July 2007 Te Mihi Modelling Report. The intent of the Wairakei General Conditions is that the Discharge Strategy identifies the general area in which reinjection (in this case) might take place. Big picture effects issues such as those of concern to Mr Matthews will be resolved in the approval process for the Discharge Strategy. Once an approved Discharge Strategy is in place, it is consistent with that framework to have a relatively short notification period for wells drilled within the general areas identified by the Discharge Strategy. If Contact desires to move outside the general areas identified in the Discharge Strategy then it has to undertake a review of the Discharge Strategy.
39. I therefore do not support the kind of parallel General Conditions process which Mr Matthews suggests. However, I do think it appropriate for the holder of the Geotherm Group consents to have some assurance that it will be consulted by the Regional Council before it approves any reviewed

Discharge Strategy. I have suggested an additional condition to provide this linkage in consent 116786.

Condition 5, Consent 116786

40. Again, I believe that while the condition Mr Matthews refers to in the Geotherm Group consents is understandable having regard to the characteristics of that project, it would be out of place in the Te Mihi consents.
41. The purpose of the condition within the Geotherm Group consents was to ensure that Geotherm Group's reinjection was hydrologically in-system so as to ensure 100% fluid replacement, and thereby avoid any potential contribution to pressure draw down in the System and hence to subsidence beyond the boundary of the consent site. The contribution Contact makes to subsidence is managed in a completely different way in the General Conditions focussing on addressing the adverse effects of subsidence as a primary objective in the Discharge Strategy.
42. In addition, my understanding on the science relating to reinjection/injection, derived from my involvement both in the Environment Court hearings related to Contact's Wairakei consents and the previous hearing considering Change 1 to the Waikato Regional Policy Statement and Variation 2 to the Proposed Waikato Regional Plan, is that if Contact's reinjection were found to be hydrologically out of system (i.e. injection as the Environment Court defined it) that would substantially reduce if not eliminate any possibility that that reinjection/injection might adversely affect the Geotherm Group project. In summary, therefore, I think the condition Mr Matthews suggests is out of place in the Contact Te Mihi reinjection consent and does not address Mr Matthews' fundamental issue of managing adverse effects on the Geotherm Group consents.

New Conditions, Consent 116786

43. In paragraph 5.17 of his evidence, Mr Matthews suggests that a similar condition to that in the Geotherm Group consents be imposed, precluding Contact from having any more than minor adverse effects on geothermal production or electricity generation activities of Geotherm Group.
44. Mr Carey discusses the rationale for this condition (in the Geotherm Group consents) in his rebuttal evidence and notes the difficulty, given the very close proximity of Geotherm Group's own reinjection to its production wells

and the fact that reinjection pursuant to consent 104718 would not be subject to this obligation, in establishing the cause for any adverse trends in Geotherm Group production. I do not believe it is good practice to impose conditions where the ability to determine compliance is at best uncertain and at worst impossible. I do not therefore support this suggestion.

45. At paragraph 5.18, Mr Matthews suggests imposition of another Geotherm Group consent condition, providing for compensation in the event of adverse effects on the mass output from (in this case) Geotherm Group's wells.

46. Again, Mr Carey explains the rationale of this consent condition in his evidence and the reasons why that rationale does not apply to Contact's proposed Te Mihi reinjection. Similar comments arise in relation to Mr Matthews' paragraph 5.17 about the lack of enforceability of the suggested condition. I note also my understanding that it is not possible to impose a condition requiring compensation to be paid in particular instances. The Geotherm Group consents were proffered as part of a consent memorandum, and thus this issue did not arise there.

47. At paragraphs 5.19 and 5.20, Mr Mathews suggests two buffer areas, based on the evidence of Dr Burnell. Professor O'Sullivan discusses the technical basis for the buffer area in his rebuttal evidence. Mr Carey discusses the extent to which the buffer areas proposed constrain system management.

48. I agree with Mr Carey's assessment that the buffer areas proposed by Mr Matthews are so large that they could potentially conflict with the primary objective of the Discharge Strategy, being to address the adverse effects of subsidence. This point is brought out in the evidence of Dr Watson, who notes that having excluded significant pressure increases in the Tauhara reservoir to avoid untoward subsidence and other effects, if one also draws large buffers around the Geotherm Group consent area to protect that operation, Contact starts to run out of sensible reinjection options. My understanding of the Environment Court's reasoning in its May 2007 decision is that in that event, subsidence minimisation takes precedence over production issues. The same issue would not arise if the buffer area put in place were more modest as Mr Carey has suggested.

General Conditions

49. At paragraphs 5.23-5.28, Mr Matthews suggests a number of amendments to the Peer Review Panel provisions in the Wairakei General Conditions. I think that these suggestions are open to the general criticism made earlier, of the undesirability of having slightly different sets of General Conditions applying to different Contact reinjection consents, especially in circumstances where, to my mind, the suggested amendments are semantic in nature or simply unnecessary.
50. At paragraph 5.29 Mr Matthews expresses himself as being unclear as to when the draft Discharge Strategy should be submitted under the Wairakei General Conditions “*or whether one has been submitted in relation to existing Wairakei Power Station consents.*” I am puzzled by Mr Matthews’ comment given that a draft Discharge Strategy was submitted as part of Contact’s Te Mihi applications (as a section in the draft System Management Plan in Part C). That draft Discharge Strategy expressly stated that it was prepared for the purposes of compliance with the Wairakei General Conditions. It also took account of the consents being sought as part of the Te Mihi process.
51. Mr Matthews suggests a condition requiring that another draft Discharge Strategy be provided within six months of the commencement of the Te Mihi consents. Although Mr Matthews does not discuss it in detail, I infer from the changes to the condition that Mr Matthews has suggested that his real concern is that in any future review of the Discharge Strategy, Geotherm Group should be consulted as part of the formulation of the document. As discussed above, it seems to me that this is a worthwhile suggestion but it can readily be accomplished by the additional stand-alone condition on the specific Te Mihi reinjection consent I have suggested. This would be much more preferable in my view than creating the confusion that a parallel set of General Conditions would provide.
52. At paragraph 5.32, Mr Matthews suggests amendment to General Condition 5.2 to delete reference to provision of an initial System Management Plan. The amendment is only necessary if the Board of Inquiry accepts Mr Matthews’ suggestion that a stand alone set of Te Mihi general conditions be provided. For the reasons already discussed, I believe that this is neither necessary nor desirable.

53. At paragraph 5.33, Mr Matthews suggests an amended General Condition 5.3 related to the System Management Plan, seeking provision of such a plan within six months after commencement of these consents.
54. Again, I do not understand the basis for Mr Matthews' suggestion. As stated previously, Part C of the Te Mihi consent applications contained a draft System Management Plan anticipating the grant and exercise of the Te Mihi consents. The Discharge Strategy discussed above formed part of that draft System Management Plan. Thus the condition Mr Matthews seeks is unnecessary. This process is the opportunity for Geotherm Group to make comment on the content of the draft System Management Plan as it relates to proposed Te Mihi reinjection.
55. In his evidence Mr Matthews suggests additional amendments to General Condition 5.11. The amendments are semantic in nature. I do not believe that the administration of the consent would be improved by having different wording between different resource consents, when the differences are essentially semantic.
56. Mr Matthews makes a number of suggestions for additional monitoring conditions. Mr Carey's view is that additional monitoring is not required in this case given the extensive monitoring already underway by Contact and the character of the Te Mihi application as an incremental change to the reinjection already permitted under existing reinjection consents.
57. With respect to Mr Matthews suggestions for new conditions requiring an "updated" Multiple Operator protocol, there is already an obligation under Section 8 of the Wairakei General Conditions for Contact to consult with Geotherm Group regarding its operations. If Contact were required to produce its own Multiple Operator Protocol in consultation with Geotherm Group, there would then be two of these documents, one considering the Geotherm Group project occurring in the context of Contact's existing consents, and the other considering the Te Mihi reinjection consent in the context of both Contact's existing consents and the Geotherm Group consents. I think this would be administratively confusing and fraught with practical difficulty.

Noise Issues

58. At paragraphs 5.44 to 5.46 Mr Matthews questions the absence of any operational noise condition and suggests that a condition be imposed

requiring the Te Mihi Power Station to operate within the 40dBA Leq contours set out in Mr Malcolm Hunt's evidence.

59. This position raises two issues. Firstly whether a condition is required and if so what the obligations should be.
60. As discussed in my evidence in chief, I adopted the approach that Taupo District Council applied in the recent Rotokawa II Power Station consent conditions whereby an advice note recorded that the consent had been granted on the basis that District Plan noise limits would be met. I think this is a reasonable approach and one that I understand the District Council prefers.
61. I have no intrinsic difficulty with converting the advice note into a condition, but I disagree that such a condition should be tied to Mr Hunt's evidence. In my view compliance with District Plan noise limits indicates an acceptable level of noise effects. Mr Hunt has separately given evidence that this position will not create a cumulative noise issue with Geotherm Group's potential noise emissions.
62. If the Board prefers a condition then I would suggest the following wording:

"(i) Levels of noise arising from the operation of the Power Station measured at or within the notional boundary of any rural dwelling existing at 21 July 2008 (a line 20 metres from any side of any rural dwelling existing as at 21 July 2008, or the legal boundary where this is closer to the dwelling), shall not exceed the following noise limits

7.00am - 10.00pm 55dBA Leq

10.00pm - 7.00am 40dBA Leq and 70dBA Lmax

(ii) Noise levels shall be measured in accordance with the requirements of NZS 6801:2008 Acoustics - Measurement of Environmental Sound and assessed in accordance with the requirements of NZS6802:2008 Acoustics - Environmental Sound. "

Air Discharge Issues

63. Mr Matthews suggests that the consent limits for air discharges should be amended to reflect Dr Stevenson's modelling. Dr Stevenson has explained in his rebuttal evidence that he had assessed both the most likely emission rates and the maximum rates specified in my proposed draft conditions in his evidence in chief and that both have less than minor adverse effects.

Given that evidence I see no basis for the amendments that Mr Matthews seeks.

Alistair McLachlan

64. At paragraph 12 of his evidence, Mr McLachlan states:

I believe that Contact Energy should be required to return all condensate and separated geothermal fluid from the Poihipi Power Station site back to its source at Te Mihi, and reinject that fluid beneath its own land.

65. Poihipi reinjection/injection is authorised by consents 890095/96 and 104718 held by Contact. Those consents clearly permit injection outside the Wairakei-Tauhara System boundary and are not the subject of the applications before the Board of Inquiry.

S G Daysh