

**TUESDAY 29 JULY 2008**

[9.30 am]

BOARD OF INQUIRY

**Te Mihi Geothermal  
Power Station Proposal**

**HEARING RESUMES**

**CHAIRMAN:** Good Morning everybody. Mr Robinson.

**MR ROBINSON:** I ask Mr Coombs to give evidence please.

**CHAIRMAN:** Now – yes come forward Mr Coombs – now just before  
Mr Coombs gives evidence we'll just perhaps note the presence of the  
parties who are going to present their cases this morning, and that's the  
neighbours, perhaps if they could just – would you like to come - first of all  
could you just, each one of you, just let us know who you are and give us  
your name so it can be put in the record. Starting with?

**MS KOSTER:** Linda Koster.

**CHAIRMAN:** Ms Koster.

**MR BURCHELL:** Anthony Birdsall.

**CHAIRMAN:** Mr Birdsall.

**MS PRICE:** Lynley Price.

**CHAIRMAN:** Ms Price.

**MS ELLERY:** And Francis Ellery.

**CHAIRMAN:** Ms Ellery, yes thank you. Now does any one of you wish to ask Mr Coombs, who is the landscape architect any questions?

**MS PRICE:** Not at this stage.

**CHAIRMAN:** Not at this stage. You are quite entitled to ask him any questions if you so wish, especially those of you that have problems with landscape or visual effects. His evidence of course has been read by us. He's not going to repeat his evidence today but one of the Board members wishes to ask him some questions relating to his evidence and that will only take a few minutes, but if any of you would like to ask any questions you really should do that before the Board member asks or alternatively, we'll perhaps let -

**MS PRICE:** Can I ask a question?

**CHAIRMAN:** Yes you may.

**MS PRICE:** They originally had a design which was in the folders for what they were going to landscape.

**CHAIRMAN:** Yes.

**MS PRICE:** And we had a meeting and they changed it. Has the change -

**CHAIRMAN:** Have you not got a copy of the changed?

**MS PRICE:** Yeah we have, that's what's presented is it?

**CHAIRMAN:** Yes and I think that's what the question is going to be asked about by Mr Nugent, who is one of the Board members.

**MS PRICE:** Thank you.

**CHAIRMAN:** So perhaps we will let him ask some questions first and if you wish to ask any questions about that or about any other matter that - or any other matter relating to landscape issues, then you are quite entitled, of course, to ask a question. Some of you all also have problems, I notice, or flagged potential problems about noise. Have any of you still got concerns about noise?

**MS KOSTER:** Yes, yes I've got concerns about noise.

**CHAIRMAN:** Did you want to ask questions of the noise experts?

**MS KOSTER:** It's all a bit - well, if they can answer any questions. I mean I know it has been explained what the noise level is going to be for the actual power station once it's running, or what they think it's going to be. My concern is about the time - at the time of the construction and whether they've got any answer to that.

**CHAIRMAN:** And of course one of the problems is that if anyone wished to cross-examine anyone they were meant to give notice because all these experts come from a distance and it costs a lot of money to get them here. Not that that's a problem if anyone wants to ask a question and I'm not quite sure whether you - did you make an -

**MS KOSTER:** It was on my submission, noise.

**CHAIRMAN:** But you didn't request it?

**MS KOSTER:** No I didn't request it, no.

**BRAD COOMBS (Affirmed), called [09.35 am]**

**EXAMINATION BY MR ROBINSON**

- Q. Mr Coombs can you please confirm for the record that your name is Brad Coombs and that you are an associate and senior landscape architect and indeed the Tauranga manager of Isthmus Group Limited?
- A. Yes I am.
- Q. And can you confirm for the record that you prepared both a brief of evidence-in-chief and a rebuttal evidence in this proceeding?
- A. Yes I did.
- Q. And can you confirm for the record that the contents of those briefs are true and correct to the best of your knowledge and belief?
- A. Yes they are.
- Q. Can you answer any questions; I think Mr Nugent has some.

**MR NUGENT**

- Q. I'm referring to your exhibit BC01 in your rebuttal evidence.
- A. Yes.
- Q. And I should say that we visited the site yesterday that rose a couple more questions in my mind. So, on the plan you have spot heights going along here in front of the proposed mitigation landscaping. Are those present spot heights or post-construction spot heights?
- A. They're existing spot heights.
- Q. What would the post-construction levels be, do you know?
- A. My understanding is that there is to be no topographical change to that ridgeline and that the reason why those spot heights are picked out is that that is a very broad low ridgeline that runs along the general alignment of those spot heights. There would obviously be some change to allow the construction, or the access road to go in and any new well pads but other than that that ridgeline is to stay in tact.

- Q. Right and with the construction lay down area, which I presume needs to be level, would that be - retain that 521, 523 level and be constructed to that height? Do you know that?
- A. My understanding is that it doesn't need to be completely level, as long as it is a gentle contour. If it was to be flattened in any way then those original heights would be reinstated.
- Q. Right, okay. Now where your mitigation landscaping proposed follows the boundary with the Prices' and Ellery's property running east/west roughly, it appeared yesterday that there is a ridge in that area, is that correct or is that not a ridge?

**CHAIRMAN:** Just before you answer that Mr Coombs, can you hear at the back? Come forward. As being parties, you should be able to sit in a place where you can have a table. You are the ones that are being affected by this, so you should be able to hear.

**MR NUGENT**

- Q. Perhaps I will just repeat that question so that Ms Price and Ms Ellery can hear. In the - and I will point it out. The landscaping that is shown running east/west along there, it appeared, when we did the site visit, that there is a ridge to the south of the existing access road, is that plant - is that actually a ridge that would stay and would the be planting be on the top of that ridge?
- A. Yes that's correct. The access road which comes in from the left and you can see that on the aerial photograph underneath, follows a low point along that boundary and approximately 50 metres back which is where I've located that mitigation planting is a very shallow ridge. It continues to climb and in fact we can see just to the left of the proposed switch yard we can see two wells. They don't have numbers on them on this plan but I'll mark them on - they're those two there. That marks a shallow high point between the southern boundary of the submitters' properties and the

power station side. So it continues to rise up to that level but we were trying to stay clear of the boundaries and any earthworks required for the construction of the access road in order to locate that mitigation planting.

[9.40 am]

- Q. Right. Now the construction lay down area which is to the south and sort of to the south of that planting, but west of the ridge which has the spot heights on them, would that be below the level of that ridge where the planting is or the same level or higher?
- A. It is to the south/east, this area there. I think the best way to explain that would be perhaps to have a look at the photo simulations attached to my evidence-in-chief. Exhibit BC9 is probably the clearest. Exhibit BC9 shows a site photograph at the top and photo simulation at the bottom of a view from Oruanui Road looking east. The eucalypt shelter belt to the very left of that photograph and we can see the new access road cutting through the left-hand side of the photograph. So we can see that the land is quite undulating through here. To answer your question, it looks like the land would be slightly lower.
- Q. Presumably that undulation wouldn't be suitable as it is for the layout area, they'd have to bench it or something wouldn't they?
- A. My discussions with the projects engineers are that they don't need it to be dead flat and I would have thought that it should be a shallow enough contour to be able to be utilised as it is. If it was to be changed in any way then I understand that it can be reinstated to the original contour.
- Q. I'm actually thinking of the period during the construction and the relationship between that existing ridge, which won't have the planting on it then and the layout area?
- A. Yes, my understanding has always been that that contour wouldn't change markedly.

- Q. Now the other questions are related to your rebuttal evidence as well. In terms of, you've got proposed mitigation planting of Pinus Radiata and Japanese Cedar, but the conditions don't specify that. In your experience isn't it useful for conditions on these things where you've agreed species with the people affected, to have that in the condition itself, to certainty?
- A. My understanding was that the conditions referred to exhibit BC01 to my evidence in reply, which does specify the species.
- Q. Right.
- A. So in that sense I would have thought that it does --
- Q. It locks in that way, okay.
- A. -- lock that in. If you thought it would give more certainty to actually have that wording in the conditions then certainly.
- Q. Okay, fine. Now, the other question I've got is about how you see the planting handled at maturity because you've said you've designed it as a - in the nature of a woodlot and we've got a power station which will be around for quite a long time, is there any expectation that they will harvest the trees or how would they handle that issue in 30 to 40 years?
- A. The rationale for the planting is that after discussions with the submitters we decided that we needed both speed and a reasonable level of amenity. So the idea is to have a staggered double row of planting, that the back row would be pine, which would give us the speed and then the front row would be the Japanese Cedar. So once the Japanese Cedar has attained sufficient height to provide meaningful visual mitigation, then the pines would come out in behind and that could - that system could continue with either pine and Japanese Cedar or a double row of Japanese Cedar in perpetuity, but of course we must maintain at least one row of trees there to ensure that that mitigation is kept in place.
- Q. Okay, now that is a good explanation and I am just wondering whether that should be included somewhere a little bit more certain for the neighbours than a management plan that the Council will approve in due course. I'm not saying you need to answer me precisely on what could be

done now but you might like talk to Mr Daysh whether that sort of explanation could be written in, because the period we are talking about is 20 odd years hence, isn't it?

A. For a rotation of trees?

Q. Yes.

A. Yes probably 20 to 25.

Q. That's right and very few of us in the room will be here.

A. So you'd like me to talk to Mr Daysh about a way of locking in that wording with a bit more certainty?

Q. Well yes. Something a bit more certain because I think if we are looking for something that is going to achieve that mitigation over time there does need to be some element of certainty in the intervening time. Thank you that was all my questions.

#### **CROSS-EXAMINATION BY MRS ELLERY**

Q. Yes, is there any planting included in this that, like from the back of our garden you look into that area and we talked about all the piping that might happen one day. I'd just like a proposed plan that if something does happen there, that they are going to put pipes down, that we are guaranteed that they are going to be planting in that area as well?

A. I think probably, this was a discussion that was had during the submitters' meeting at your house in June, so I wonder if I can just update the Board on what you're referring to.

Q. Yeah. It's just like the intention is there, but I would quite like to have something also put in writing.

A. Yes. So, if I could refer to exhibit BC17 to my evidence-in-chief. I think what Mrs Ellery is referring to is this view to the east from the Ellery house. Is this -

Q. Yeah or the other way, that's all clear paddocks at the moment but, you know, I don't know if there is going to be any piping because we look very much into the area.

- A. So to the left of this photograph here?
- Q. That's right, yeah.
- A. You mean the view out in this direction as well?
- Q. Yeah, all open paddock space, looking down the valley then up again.

[9.50 am]

- A. Yes. So this is Contact land in here and I understand that under the steam field consents, steam field development could take place in this area in the future. It's outside of the applications for this power station but nonetheless steam field development could take place through here and I think there might be a stipulation that it can't be any closer than 100 metres to the boundary. I don't understand there to be a mechanism in these applications to guarantee that that steam field development wouldn't be visible from the house. That was a matter that was discussed at one of the submitters' meetings but it's not to do with – it's not part of these applications. I have discussed that issue with Contact and I think they are amenable to the idea of making sure that there's planting in place but I don't know how that would refer to these applications.

**CHAIRMAN:** Well I suppose there is ways and means of doing anything isn't there and it is up to Mr Robinson to respond I suppose. Mr Robinson?

**MR ROBINSON:** I will need to take instructions sir.

**CHAIRMAN**

- Q. Yes and it is something I think Mrs Ellery should have an answer to before she leaves here today. It's rather a simple matter, because what you're saying in effect is that it's the take consents, which were granted a year or so back, which cover the steam field operation of course.
- A. That's my understanding. The other thing I should say –

Q. Well the only way the matter can really be sheeted home was by some form of undertaking under the IEA GIA (ph) principle and that's really what you're asking for, is it Mrs Ellery?

**MRS ELLERY:** I just want some guarantee that if some future plans have been made there that we can be guaranteed that Contact is going to do something about it. It's all part of the land that is owned by Contact that we are looking out onto. It's a fair comment I think.

**CHAIRMAN**

Q. You can't take the matter any further Mr Coombs?

A. No I can't.

**MS KOSTER:** We would like a date put on the planting. We feel we've got to wait a long time for these trees to grow –

**CHAIRMAN:** Well, address the question to the witness.

**CROSS-EXAMINATION BY MS KOSTER**

Q. We can wait a long time for these trees to grow, I think it is fair enough if they're in before you are getting in there and building your power station.

A. I think some of the planting can - could take place before the development of the power station, particularly that planting that is oriented east/west. The north/south planting obviously cuts through an existing lay down area which would be required for, during the construction of the power station and also the new access road. So, there would no doubt be parts of that planting that couldn't be undertaken in the meantime but certainly any area that wasn't going to be affected by the construction of the power station, I don't see any reason why it couldn't be established. It's a relatively simple matter of fencing it off and getting the plants in the

ground. So as long as we are within a planting season, then I think that would be reasonable.

**CHAIRMAN**

Q. Well when is the next planting season?

A. Well any time from now until September in Taupo.

**MS KOSTER:** Sounds good.

**CHAIRMAN:** Any further questions from - sorry your name is?

**MS KOSTER:** Linda Koster.

**CHAIRMAN:** Ms Koster?

**MS KOSTER:** Yeah, no, no, that seems to be all right.

**CHAIRMAN:** Miss Price, have you any questions?

**MISS PRICE:** Not about this, no.

**CHAIRMAN:** No. Okay. And Mr Birdsall?

**MR BIRDSALL:** No.

**CHAIRMAN:** Yes, and I have no questions, does any member of the Board any questions arising out of the other questions?

(Board members indicate they have no further questions).

(Witness excused)

**MR ROBINSON:** Sir before we hand over to the lay submitters, a question arising out of Mr Nugent's question, a project engineer is in the rear, Mr Coombs was relaying his understanding of what the project engineer intended. I can call Mr Pummer and invite him to give a more authoritative answer to Mr Nugent's questions.

**CHAIRMAN:** Probably a good idea, thank you for that, yes.

**BERND PUMMER (Affirmed), called [09.55 am]**

**EXAMINATION BY MR ROBINSON**

- Q. Mr Pummer, can you confirm for the record that your name is Bernd Pummer and you work for Contact Energy as a project manager, generation development and you have qualifications as an engineer?
- A. Yes I do.
- Q. And for the record you have prepared evidence-in-chief and rebuttal evidence in the proceeding?
- A. Yes I did.
- Q. And to the best of your knowledge and belief that they're correct?
- A. Yes I do.
- Q. Well perhaps the easiest thing is, you heard hopefully from the rear, Mr Nugent asked about the contouring of the property. I wonder if Mr Wilding could put up that diagram that Mr Coombs was referring to and if you could just speak to the extent to which it is intended that that might be re-contoured from what you can see and what is visible on the existing diagram.
- A. I mean just in general terms you can imagine that generally you are trying to minimise any effects you are trying to do. In particular if it is only for the purpose of lay down areas during construction, so - because it just typically means additional cost. So, therefore yes the intention what Brad Coombs indicated, the intention is to leave the ridgeline as shown with the spot heights showing north/north west. Okay, so these spot

heights, the intention is to basically don't touch those - to not change those during construction and also, even though as he indicated, this is slightly undulating, minimise - the intention is to minimise any changes in terms of re-contouring - contouring during construction but if we have to re-contour or if we have to flatten out certain areas, as for storage areas, they would be re-established. So that's in particular, I guess in this area here. Generally the intention is to use - to utilise as much space as we can during construction as close as possible to the power station in order to minimise, you know, unloading and offloading multiple times. So therefore, it's indicated that the lay down area for the construction might go right into this area but the intention is to stay as close as possible to the station as such.

- Q. A question for clarification, in the area which runs back towards Oruanui Road, if you needed to alter the contours there presumably you wouldn't build it up, you would just smooth it out?
- A. Smooth it out.
- Q. And keep it down similar to the road level.
- A. That's right.
- Q. The new road.
- A. Yeah. I mean, yeah, I mean the intention is not to do big cut and fills if that's what you are referring to?
- Q. Yes.
- A. Yes.
- Q. Thank you.

(Witness excused)

**MR ROBINSON:** I think that that leaves, by my count, two loose ends for me.

One, I need to talk to Mr Daysh, questions arising about conditions and second, about Your Honour's query about planting in relation to the steam field but if Your Honour is happy it would probably best if I try and address those over the morning tea break and hand over to the submitters now.

[10.00 am]

**CHAIRMAN:** Yes, well thank you for coming along, if you don't mind me calling you the neighbours rather than submitters, neighbours sounds a bit better than submitters. We've read the evidence that you have prepared, at least some of you have. Perhaps we'll – I'll reiterate what I said before, repeat what I said before, or change what I said there, we haven't received any evidence from the neighbours in writing, other than your submissions, so really what we would give you the opportunity of doing now is enlarging on that or emphasising any matters that you wish to emphasise arising out of your submissions that you filed and if we could start off perhaps with Mr Birdsall. Now do you wish to give –

**MR BIRDSALL:** Is that all right if Linda and I go up together? Is that a problem or not?

**CHAIRMAN:** Yes, well we'll let you come up together. It's unusual. Witnesses don't normally give joint evidence, but in the circumstances yes we'll let you come up together.

**MR ROBINSON:** Sir if I could assist, Mr Birdsall and Ms Koster are joint submitters.

**CHAIRMAN:** Yes.

**MR ROBINSON:** So the double act might be appropriate in that instance.

**CHAIRMAN:** Do you wish to give evidence or just make submissions?

**MS KOSTER:** Just to talk about – you know –

**CHAIRMAN:** Yes, very well, okay well we'll get you sworn in.

**LINDA KOSTER (Sworn), called [10.02 am]**

**ANTHONY BIRDSALL (Affirmed), called [10.02 am]**

**CHAIRMAN**

Q. Okay, now you've – which one of you is going to take the lead role?

A-Ko. There is some concerns we have that experts say aren't a concern, but we'd still like to express them.

Q. Yes.

A-Ko. One is the risk of ground water contamination. Personally we would like it just for our own piece of mind, if our – if our bore water was tested for geothermal contaminants every couple of years. I don't think it's a big ask and if something went wrong, we would like Contact to come up with a water scheme and supply us with water, if, you know – they say it can't happen, but it's just something that does concern us. Another thing we are worried about is the noise. We have a young daughter that rides on the road a lot and –

A-Bi. Rides a horse – a horse.

A-Ko. A horse. You put a lot of construction traffic down the road, it potentially can cause disaster, not only for her, but you know the pony club is just down the road, there's a lot of kids that use the road. And our only other concern is we feel that the "H2S" will be a really increased – we've – in certain weather conditions from Poihipi, and you just put another power station right there it's just going to add to it. I don't know what they can do

about it – remodelling say it's going to be less but I find that very hard to believe when you've put another station so close.

A-Bi. And also they were a little bit worried about Oruanui Road in certain weather conditions with being in a hollow, you know, with it sort of getting a lot of fog and things building up, which does occur occasionally on Poihipi Road, below Contact's – the other power station. Certain weather conditions – yeah, so it's another concern. That's about it really.

**CHAIRMAN:** Yes, thank you for that. Does any of the other neighbours want to ask a question of either Mr Birdsall or Ms Koster?

**MS PRICE:** No I don't think we need to ask any questions.

**CHAIRMAN:** Mr Robinson?

**MR ROBINSON**

Q. Only one. I wondered if Mr Birdsall and Ms Koster were aware that there are already conditions that would require Contact to replace the water system if there were any contamination as a result of reinjection?

A-Ko. No I couldn't find it.

A-Bi. We couldn't find anything.

Q. I can sympathise. It is a large bible, but I can show you where the provisions are or Mr Stevenson –

A-Ko. We are pleased with that, yes.

A-Bi. That's good.

A-Ko. Is there regular monitoring in it?

Q. Yes there's – there is a lot of monitoring.

A-Ko. Of our ground water?

Q. Not of yours specifically, but there's – sorry, it's a little – Your Honour –

**CHAIRMAN:** Yes, let's be relaxed about it shall we.

**MR ROBINSON**

Q. Yes there's a lot of monitoring and may be the simple thing is that in the morning tea I'll show you the nature of the requirements. Not yours specifically, but it's around the – each reinjection well and the local ground water, so it will show you where the provisions are, so you understand exactly what Contact has already committed to.

A-Bi. And thank you for already testing our water supply.

**UNIDENTIFIABLE FEMALE SPEAKER:** Is there is a chance we could get ours tested too or –

**MR ROBINSON:** I don't know. I'd have to talk to Mr Stevenson, but that's between Contact and Mr Birdsall and Ms Koster. We'll show you where the conditions are so you are clear on what Contact's already committed to do.

**MS KOSTER:** Thank you.

**MR BIRDSALL:** Thank you.

**CHAIRMAN:** Ms Bain? Professor Brown? And I have no questions either. Thank you very much for coming along today and letting us know your concerns.

**MS KOSTER:** Thank you.

**CHAIRMAN:** And also thank you for the site visit yesterday. I would say Professor Brown and myself and Mr Nugent enjoyed the ride in the back of the truck, although it was a bit scary at times. Yes now who's – shall we have Ms Price next?

(Witnesses excused)

**LYNLEY DUTTON PRICE (Sworn), called [10.09 am]**

**CHAIRMAN**

Q. Now if you could just take a seat Ms Price and just tell us your concerns.

A. Thank you Your Honour. My concerns, as I said, in my submissions were three, four, which were exactly the same actually as, in some respects, as the Kosters. The first being visual, secondly being noise, thirdly the smell, being a risk to perhaps health as well as being unpleasant, and fourthly the possible seepage into our water supplies, but it was – it's number two on my submission that I'm particularly concerned about, because the other ones have been addressed to a certain extent by Contact Energy, I feel, but the noise level seems to be something that they don't seem to be able to quite give me any answers on.

[10.10 am]

The noise level for the power station, yes once it's running, but it's the construction noise that I'm particularly concerned about. I did not realise at the very beginning that the lay down area and the initial maps early on did not actually indicate that, that the lay down area was going to be right behind my property. I run a riding school. I teach children to ride. I also school horses myself in an arena which is at the closest point eight metres from the boundary, the back boundary. The average – the middle of the arena is 31 metres from the back boundary. Contact have agreed to move the area further back and have this 100 metre buffer zone, so they said between, but I still don't feel that 100 metres is sufficient to actually have a great impact on the noise levels.

During this last summer, October, November, they were – there was a lot of big heavy machinery going up the back to – when they were drilling and the noise was just amazing and as a matter of fact – and it shook the ground. You could feel when you were standing by my arena that the

whole ground actually shook with some of these trucks. Contact did see that their speed was cut down and it was to 30k which made considerable difference, plus watering it, but it did mean that whenever I heard a truck coming, which I could do, turning in at the end of Oruanui Road, I would tell my pupils to either stand their horses still for a minute or in the case of little children, I would normally move fairly quickly and just take the pony by the bridle just in case it took fright.

My big fears and concerns are that I don't seem to be able to get any indication as to what the noise level's going to be during this construction period, which takes two years, I believe, and I – and I won't have that preparation of knowing that it's going to happen. It's going to be – the noise will just, will be very – suddenly, obviously when things are getting shifted around, moved or whatever.

It is my livelihood and I can't really go and teach elsewhere. I don't drive so I have a problem there and it does concern me greatly as to – I know that they haven't got the answers as to how noisy it is going to be, but if it does prove too noisy, what is going to happen? No-one can give me the answer then. What's going to happen about – yep, my livelihood really and the safety also of course of children and people that I teach. So that is, I think, about the sum total of it, Your Honour.

**CHAIRMAN:** Yes. Thank you for that. Does any of the neighbours wish to ask any questions of Ms Price? No? Mr Robinson?

**MR ROBINSON**

Q. Only one question. Have you read the evidence of Mr Malcolm Hunt, Ms Price?

A. Sorry?

Q. The evidence of Mr Malcolm Hunt, who gave noise evidence for Contact?

- A. The noise – well he had a, like a cylinder and it showed all the noise, the various levels that he – that was considered was going to be once the – it was up and running, the actual, because we were all concerned as neighbours about the actual noise of the power station, but I've never been given any indication or we never had any real indications as to how noisy it might be during the construction area and the fact that that lay down area is much closer to me than the actual power station is, is my biggest concern, being right behind the property.
- Q. But have you read the sections of Mr Hunt's evidence on construction noise?
- A. No I don't think so. No.
- Q. Okay, thank you anyway.

**CHAIRMAN:** Mr Nugent?

**MR NUGENT:** No.

**CHAIRMAN:** Professor Browne?

**PROFESSOR BROWNE**

- Q. I just have one question Ms Price and that is the horses. You explained that during the last summer the noise was quite – quite aggressive and you had problems with dust and things like that and you explained how whenever you heard the trucks coming, you would let the students know that they were coming and you held onto the young children's pony's reins.
- A. Mhmm.
- Q. Did you ever have any horse cause any problems as a consequence of that noise?
- A. Yes, but they were – the odd one was sort of – jump and --
- Q. Yes.

- A. -- shoot sideways or whatever, but the fact that I had been able to warn people meant that if they happened to be trotting or cantering they could come back to a walk immediately --
- Q. Yes.
- A. -- and the likelihood of there being an accident and I was just lucky there wasn't and it's a -- and I must say it did -- once the traffic had been slowed to 30 -- to 30k it certainly made quite a difference. Just the fact that it's an unsealed road and the noise. I don't know if you've ever heard those big trucks going over an unsealed road. They just -- it just makes everything shake, it's just amazing, the noise, but once they got down to 30k it wasn't so bad, but it's just that the noises from the lay down area where things are being moved around that I would not even know what's going to be happening, concerns me greatly.
- Q. The horses that you deal with, are they horses that do quite a lot of road work?
- A. No they don't because a lot of people don't ride on roads a great deal these days. Roads are becoming increasingly more dangerous and without wide verges or anything a lot of them don't ever go much on roads and so horses are, I think especially your pleasure horses, a lot of them are getting far and far more nervous of traffic and loud noises, which probably isn't a good idea. My own horse, for instance who lives right there, he's fine. No problem with him. A bus could run over him and he wouldn't blink, but because he's so used to the noise of that traffic or behind, but it's other people's horses that --
- Q. Yes, because horses adapt pretty quickly don't they?
- A. They do.
- Q. Yes.
- A. They do.
- Q. Just to give us a feel for your business, how many students do you cater for?
- A. Well that varies tremendously --

- Q. Yes.
- A. -- depending on the weather and all sorts and at the time of year. At the moment it is basically schooling other people's horses, which I haven't actually been able to do because of -- I hurt my leg, but usually it's a lot of other people's horses there that I school. As the pony club season gets underway which is in about a month's time, you know, I have quite a few lessons after school mainly, weekends, right through all the holiday period.
- Q. Yes, like -- could you give us some idea of numbers, like just a range from say 20 a week to 100 a week or 20 to 40 --
- A. No more like 20 -- more like 20 to 30 a week.
- Q. Yes. And that would be spread out during the week?
- A. Yes, all different times. Ranging any time from half past 7 in the morning, that is before they go to work if it's an adult or 7 o'clock or something like that, right through until dark.
- Q. Yes.
- A. Just any particular time that they can come.
- Q. Yes, yes thank you for that. Thank you for your assistance. Yes thank you Ms Price.

**FRANCIS ELLERY (Affirmed), called [10.19 am]**

**CHAIRMAN**

Q. Yes good morning Ms Ellery.

A. Good morning Your Honour. I basically just wanted to emphasise a few points that we've made in our submission and also there's a lot of points already raised by my neighbours, are the same as mine. Basically the noise levels. Yes we have been given noise ideas from Contact, but to actually know what these noise levels are it's going to be pretty hard until it's actually there.

Q. Yes it's hard to conceptualise what a DBA reading is.

[10.20 am]

A. That's right, yeah, I don't know and if it's going to be a constant noise, you know, I can imagine it would be pretty annoying if you're trying to get to sleep in the night and there's the constant hissing and anyway, we know what the noises are. The trucks and the traffic are a concern of mine. I've got two school going children that go on the bus every day. They do go near the road, that's a concern when big trucks are coming passed and the traffic is going to increase. I think a lot will come from the north, will go passed our house. The kids have to cross the road. Anyway, yeah, that is a concern for me. What I said earlier about the visual, at the back of our house. I am concerned about future – future pipes and development of Contact Energy on that property. I'd like to have something in writing of Contact to say if they are going to develop there, that we're going to have some planting or screening from it. I know it's going to be 100 metre from our property boundary, but our visual is a lot further than that. Our property value, I'm very concerned about. If we're going to have big silver pipes to look at out the back of our house, I don't really know if that's going to do our value of the house any good. It is a big investment for us and the only one we've got so that is a concern and yeah I think that's

going to be pretty difficult to look in the future, if that is going to affect our property, but if it is, where do we stand. That's one of the concerns that I have raised quite a few times, but we don't really seem to get a clear answer on, because Contact doesn't think that's going to be a concern, so I really don't know where that's going to leave us, so that's basically the points I have to make.

Q. Yes, yes, well thank you Ms Ellery.

A. Okay.

**CHAIRMAN:** Thank you very much for your assistance. Yes, well I think what we'll do now is adjourn briefly because we don't want to keep you here Mrs Ellery and the other parties, just to see if Contact can first of all perhaps explain to you the conditions of consent relating to the water testing, so as you are all familiar and understand exactly what that is and perhaps discuss the possible litigation of planting relating to the steam field. I think they are the only two issues. They are not the only two issues; they are the only matters that need to be discussed during the break. There may be other matters that need to be discussed during the break. There may be other matters you would like to raise, so perhaps is it possible for us to take an early morning tea. Do that now, so as we can – so we don't, so there's no rush, so it gives them plenty of time to sort those matters out and then after that we will address the – we'll carry on with Contact's evidence.

**ADJOURNED [10.23 am]**

**RESUMED [11.15am]**

**MR ROBINSON:** You invited me to canvass all the various issues sir and report back. Firstly, the priority because Mrs Ellery has to get away; Mr Stevenson has had a fruitful conversation with Mrs Ellery. Contact's preference, because her concern relates to the steam field management which is beyond this process, is to address her concern with a side agreement, and Mr Stevenson has the essence of the side agreement scratched on the back of his pad and is going off to document it. So that is the state of the play, but the essence of it will be a commitment to landscape new pipelines within a fixed distance of Mrs Ellery's boundary in that area we're looking south of the existing planting area.

The second point, with Mr Brockelsby's assistance, I pointed out to Mr Birdsall and Ms Koster, the provisions of the general conditions that relate to remedial measures in the event of contamination of water resulting from the reinjection operations – probably fair to say that completely understandably Ms Koster formed the impression that those provisions related solely to subsidence issues which is not the case, but completely understandable that in the mass of words that that particular message wasn't clear.

And the third point is Mr Nugent's questions regarding in effect the way in which the planting plan is amalgamated into possible consent conditions, the extent to which it is hard-wired or referenced into a management plan, and this overlaps with a point Ms Price has raised obviously about noise from – and - but we think there may be an opportunity to address both issues at once, and if it would assist I'd ask Mr Daysh to explain what he has in mind – I can endeavour to do so, but I think it's probably preferable if he does it because in effect – to the extent that they're anyone's, at the moment they're his conditions.

**CHAIRMAN:** Yes well perhaps he should do it by way of evidence.

**MR ROBINSON:** Indeed sir.

**CHAIRMAN:** Then it's in the record.

**MR ROBINSON:** Indeed.

**STEPHEN GRAEME DAYSH (Sworn), called [11.18 am]**

**EXAMINATION BY MR ROBINSON**

- Q. Well rather than ask you questions Mr Daysh if I could just invite you to explain to the Board what you had in mind and then we'll go from there.
- A. Yes thank you. I think as I mentioned yesterday the original draft of the landscape conditions actually had a landscape mitigation plan hard-wired into the consent conditions. Through some suggestions from Taupo District Council that was taken out and more of a management plan approach – or the management plan approach was to be relied on solely with reference to the updated landscape mitigation plan. I, after hearing the concerns today and thinking about it again, I think, I prefer the original position where the landscape mitigation plan was included in the conditions. And the landscape conditions cross-referenced the fact that that landscape plan was to be implemented rather than just be taken account of. So that would be my preference. I have conferred with both Mr Coombs and Ms Platts from the Taupo District Council over the break and I think they agree that that's appropriate as well. In terms of the content of that landscape mitigation plan and listening to the questions from Mr Nugent and the concerns of the neighbours, I do think the best way of locking in the intent of what Mr Coombs had to say about the way the planting would be managed and maintained would be to actually write that as a notation on the plan. There are already some reasonably clear directions about what would be planted and how and why and where, but I

think it would be useful if that plan, which is BC01, Mr Coombs' rebuttal evidence, if that notation was made clearer as to the intent of the longevity of the planting and how it would be managed. I also think there is some potential – there is a potential to also mark on that plan, if the Court so desired - if the Board so desired, the timing of planting along the Price/Ellery boundary; that could potentially be notated to be done during this winter season if the consents were granted on that basis. Or the other concept could be if a bund along that boundary was preferred using some of the top soil from the site, that could be notated on that plan. If a bund – my understanding from talking to Mr Pummer and Mr Coombs, if a bund was to be put in place would it be in the order of perhaps one to two metres. If that solution was thought to be useful my advice in talking to Mr Coombs was that that would need to be done in the first season and any subsequent planting would need to be done in the following season. So there's a choice there about which – which would be the preferred solution.

[11.20 am]

**CHAIRMAN**

- Q. Yes well I suppose that boundary is not so imperative with the urgent planting is it, because there's already trees there.
- A. That's right yes.
- Q. It's the planting at right angles which is perhaps more important.
- A. Yes and I think again, discussing that point with Mr Pummer there is some – there's a road to be formed through that area and some surveying and things to be done, I think he was reluctant to commit to planting that boundary this winter. But there may be a solution that the plants could be grown up a year and planted at a larger height in the second year and we could certainly put that intent on the – notation on the landscape mitigation plan. I think that would be a sensible way of dealing with that.

**EXAMINATION CONTINUED BY MR ROBINSON**

- Q. There's also a southern - from Mr Coombs', there's three pieces of landscape – this is not that plan but at the southern end there's one which seems to be away from all the layout area, that could possibly be done in the first season – it's the one that extends across the boundary.
- A. Yes I think from my - from a conditions perspective it would be – a notation could say either it was planted this coming winter or alternatively, if you could get the height going at the same level you could plant two year old trees if that was going to achieve the same outcome in the longer term, I think that would work. And I'd be - I think if we took the approach of hard-wiring the landscape mitigation plan as a condition to be met, there would just need to be some minor fine-tuning to the landscape condition to reflect that with a few words. But I don't see any problem in doing that; I could certainly do that and provide that to the Board if that was thought useful.

**CHAIRMAN:** Yes. Should we see if the neighbours have got any questions first? Have any of the neighbours got any questions of Mr Daysh they'd like to have – to clarify any issue? Mr Nugent?

**MR NUGENT**

- Q. In terms of the point you made about the bund Mr Daysh, the Board thinks that that might be a useful way of reducing the noise effect potential on the Price property, and it's probably a fair trade-off to have that bund rather than the planting first, and I think your suggestion of growing the plants in the interim so that when they're planted they're two year old trees is probably a good solution.
- A. Yes I agree, I think that's a very practical solution. Of course I can't comment on, you know, any effects that the bund might mitigate, that's not my field –
- Q. We don't have Mr Hunt here.

- A. No, but I think that would certainly provide - potentially provide some benefit.

**CHAIRMAN**

- Q. Yes, well I don't think we need to get Mr Hunt involved because I think most of us know from past experience and evidence we've heard that if there was a solid piece of earth between the noise and the receiver then that has a strong mitigation effect. Yes thank you, thank you very much Mr Daysh. Can I just suggest that that plan be prepared, and you say you could have something ready by tomorrow morning?

- A. Yes certainly and –

- Q. I really would like the neighbours to have an opportunity of seeing that. How are we going to get it to you? Can they get a copy of the plan? Have they got computers so they can get it emailed to them? Have you all got computers? Yes well, perhaps can I leave it this way, can that be emailed to them tonight?

- A. Certainly.

**CHAIRMAN:** And if, rather than making you – not making you but rather than you having to come all the way back here can we leave it like this? If you have any concerns about it, still, if you could let whoever sends you the email with the plan on, let them know, say by 11 o'clock tomorrow morning? So if we don't hear from you by that time can we take it that your concerns have been, if not at least taken away completely, at least assuaged or mitigated. Yes thank you Mr Daysh. Can you have that arranged Mr Robinson?

**MR ROBINSON:** Indeed sir. Mr Daysh and Mr Coombs between them are on the case.

**CHAIRMAN:** Yes, thank you. Yes well that really - yes I'm just waiting for the neighbours, they're getting the email addresses of the neighbours so when that's done – I presume, do you wish to all go? Well I just want to say a few words before you then take off. Yes, well just before we move on I'll just let the neighbours know that unless they want to stay and listen to something else you are quite free to go and I want to thank you all for coming. It's important that we get those who are directly affected by these matters before us so as we can understand and realise what their concerns are. It adds a human element to the proceedings. An expert talks about noise and LEQ's and DBAL 10s and so forth, and as I said to one of the witnesses, it's hard to conceptualise in your mind just what that is. And so we need to hear from those people who are affected and remind us that we are dealing with human beings and not mathematical equations, so thank you for coming. And I think it's been well worth while.

[11.30 am]

**CHAIRMAN:** Yes, Mr Robinson.

**MR ROBINSON:** A very shrewd move from the land owners to exit before we start talking about geothermal policies! I'll ask Mr Chrisp to step forward.

**CHAIRMAN:** Well I must say when we started doing it I found Professor Browne in the bunk room of our retiring villa and I don't think he wanted to return.

**PROFESSOR BROWNE:** Well that's not quite true, but -

**CHAIRMAN:** He was heading that way anyway.

**MARK BULPITT CHRISP (Affirmed), called [11.31am]**

**MR ROBINSON:** Mr Chrisp has a short supplementary brief that I will ask the administrator to hand to the Board and that perhaps that he might read into the record in the usual way. And sir if I could clarify that yesterday when we raised the policy issues you indicated that I would have the opportunity to address you on them. Having consulted with Mr Chrisp he and I agree that this is a true planner's point, it's not a – to the extent that there are legal issues, there are legal issues in every planning document, and so what I propose to do is not to address you and resist the temptation to repeat what Mr Chrisp is going to tell you --

**CHAIRMAN:** Right.

**MR ROBINSON:** -- but reserve the ability to pick up any loose ends that I observe in the process.

**CHAIRMAN:** Thank you.

## EXAMINATION BY MR ROBINSON

- A. “Members of the Board, my name is Mark Bulpitt Chrisp...(reads supplementary brief)...draft multiple operator protocol was submitted to Environment Waikato in late November 2007”. Sir if it would assist you I do have copies of the relevant pages of the Geotherm consent which refer to – (Chair indicates they have copies). You’ve got copies of those okay. “It is my understanding that Environment Waikato has put...(continues reading supplementary brief)...accords with the requirements of the policies in variation 2 to the Waikato Regional Plan”. Sir, and I’ll just address one more topic here which is the – you yourself sir queried the – whether the role of - proposed for Environment Waikato and the conditions proposed by Contact and Geotherm might mean that the mechanism proposed by Contact and Geotherm is inconsistent with policy regime. “In my view, policy 5 does not preclude Environment Waikato, and in this case the Peer Review Panel reporting to Environment Waikato, from having a role. In practice, because of the range of objectives of the discharge strategy, the Peer Review Panel was always going to have a key role in the process. The proposed conditions in the Te Mihi reinjection consent merely highlights that that role extends to ensuring integration of Geotherm takes and Contact reinjection. It is also important to note that the Peer Review Panel role is a secondary step. The initial way in which any interference effects will be managed is through the agreed buffer area, within which Contact reinjection will only occur with the agreement of the holder of the Geotherm consents. The way in which these arrangements are structured means that”, and sir if I can insert the word “no additional” dispute resolution processes are necessary. That’s because they are already in the existing consents. “Within the buffer...(continues reading supplementary brief)...and finalisation of the discharge strategy”.

**CHAIRMAN:** Yes thank you Mr Chrisp. Any supplementary questions? Now Mr Lang do you wish to ask any questions?

**MR LANG:** No sir.

**CHAIRMAN:** Mr Hickman?

**MR HICKMAN:** No sir.

**CHAIRMAN:** Mr Brockelsby?

**MR BROCKELSBY:** No sir.

**CHAIRMAN:** Mr Nugent?

**MR NUGENT**

- Q. Just looking at paragraph 21, wouldn't the location of reinjection wells be something that the discharge strategy would deal with prior to them occurring? In other words, isn't the point of the discharge strategy to get the Peer Review Panel to understand and agree to the reinjection wells?
- A. Yes that is certainly part of it, that's right. I mean the objectives of the discharge strategy are already enshrined in Contact's consent conditions, with subsidence of water being the primary objective. The preparation or the finalisation of the discharge strategy in terms of the next iteration of that document pursuant to any consents which are granted as a result of this process would in the first instance take into account the agreement that's been reached by Contact and Geotherm so that there – initially there won't be any wells proposed in that area unless the agreement of Geotherm has been obtained. And that would all then go to the Peer Review Panel who will advise Environment Waikato as to the suitability of –

Q. Yes that's what I was getting at. So even if Geotherm and Contact agree to reinject in that area it would still need to go through the discharge strategy to the Peer Review Panel?

A. That's correct, absolutely correct. Yes, right.

Q. That's fine, thank you.

**CHAIRMAN:** I have no questions thank you Mr Chrisp. Thank you for your assistance.

**MR ROBINSON:** On that basis sir there are obviously no loose ends that I need to address you on and that completes, subject only to the further work that Mr Daysh and Mr Coombs have been left with, that completes the case of Contact.

**CHAIRMAN:** Yes thank you Mr Robinson, a much truncated case.

**MR ROBINSON:** Yes indeed.

**CHAIRMAN:** Yes thank you Mr Chrisp.

**CASE FOR CONTACT ENERGY**

**CHAIRMAN:** Now Mr Brockelsby, oh who's next?

**MR BROCKELSBY:** I'm happy to go next Your Honour.

**CHAIRMAN:** Oh I'm sorry have we got someone else? Oh yes Mr Lang is it?

**MR LANG:** Well sir, I'm not sure that any order has been agreed on or been prescribed so far, I'm happy to go next although my position now is that because of the restricted role that the McLachlan interests has in the proceedings after a Geotherm settlement, and some of the evidence that's already come through, the evidence that would otherwise have been given by Mr McLachlan will be withdrawn, he will not need to now give that evidence. And I have checked with the Board administrator to see whether or not the Members of the Board had indicated a desire to ask questions of Mr McLachlan, the response I got was no - not as a maybe or as a definite, so I could be incorrect.

**CHAIRMAN:** No, he's not required as far as I know. And they're all nodding in agreement so -

**MR LANG:** And I have submissions sir which would take probably 20/25 minutes and I'm happy to present those now if it's a suitable time.

**CHAIRMAN:** Right because I think we were going to start Environment Waikato after lunch anyway, so we'll hear your submissions now.

**MR LANG:** That's alright thank you sir. I'll distribute these.

**CHAIRMAN:** Just while you're handing those out, Mr Hickman are you still wanting to wait until tomorrow before you open or?

**MR HICKMAN:** Well sir I've been reflecting on that. With your leave I can present my submissions orally this afternoon.

**CHAIRMAN:** Yes.

**MR HICKMAN:** And then I will – with your leave – submit my written submissions as a record for the Board --

**CHAIRMAN:** Well that might be a good idea.

**MR HICKMAN:** -- tomorrow morning.

**CHAIRMAN:** Yes just – can I just hear from Mr Brockelsby, how long do you think Environment Waikato's case will take?

**MR BROCKELSBY:** Well sir we have no submissions. We're just relying on the evidence.

**CHAIRMAN:** Yes.

**MR BROCKELSBY:** There are a few points that you wanted me to address --

**CHAIRMAN:** Yes.

**MR BROCKELSBY:** -- that you raised yesterday. So that might be –

**CHAIRMAN:** So you'll do that by way of evidence?

**MR BROCKELSBY:** Yes.

**CHAIRMAN:** Yes.

**MR BROCKELSBY:** So that might take ten minutes. And then of course there might be parties who want to ask some questions.

**CHAIRMAN:** So it will be very short?

**MR BROCKELSBY:** Yeah, I'm thinking 30, 40 minutes maximum.

**CHAIRMAN:** Well we would appreciate if you could start this afternoon Mr Hickman and then we can start concentrating on writing the decision.

**MR HICKMAN:** I'm happy to do that sir.

**CHAIRMAN:** And hopefully get it finished by Friday if we get two or three days.

**MR HICKMAN:** I'm also to address you on the point that you raised yesterday regarding consent conditions in the Contact Geotherm memorandum which I'll address at that time also.

**CHAIRMAN:** Thank you. When I say writing the decision it's only a draft decision, because we have to, as you know, send it out to the parties and give them all 20 days to make comments. So, there will be a little bit of delay before a final decision comes out.

**MR LANG:** Sir has the written record of opening – of the submissions been circulated?

**CHAIRMAN:** Yes.

**MR LANG:** As I indicated the McLachlan interest have made a much reduced scope of submission now after Geotherm resolution which was one of their primary areas of concern but they do remain involved as neighbours to the Poihipi Road Power Station. So starting at the written record of submissions at paragraph one. "The McLachlan family live at dwellings located off Tukairangi Road...(reads from written record of submissions)...based on Poihipi Steam rather than Te Mihi steam characteristics". And I'd like to add there sir, that it's been confirmed that there's been no significant monitoring of actual hydrogen sulphide concentrations near to Poihipi Road Power Station. There were, you may recall, some sparse records historically, ten years or more ago and nothing recent or comprehensive that might assist in knowing what exactly is happening there in terms of concentrations.

[11.50 am]

At paragraph 5, "The Poihipi Road Power Station is closely ...(reads from written record of submissions)...nearest to that power station have not been consulted in any meaningful way in relation to the application for consent for discharges to air". Apparently that consultation is not considered to be necessary as they were considered to be potential competitors rather than local residents.

The evidence of Mr Craig Stevenson at paragraph 14 refers to the consultation programme undertaken prior to the lodging of the Te Mihi resource consent applications in July 2007. In particular references made to section 17 of the AEE document which deals with consultation. The introductory paragraphs of section 17 AEE note that even though consultation is not a requirement under the RMA Contact considers it good practice and subscribes to a policy of consulting as widely as it can with interested and affected parties when a major project was planned.

The two tier consultation process is then outlined identifying first tier parties as being those that are likely to be affected by a development for example because of their physical proximity to the project location.

It's recorded – and I mean there it's recorded in the AEE, that Contact Energy attempts to engage with tier one parties on a proactive one-on-one basis or forming working groups involving them as representatives. And it's noted there that special studies may be undertaken to address issues raised by such parties. Tier 2 parties are identified as those interested persons who live some distance away from the project and who are not directly affected by its establishment.

And in my submission it appears that no people have been identified as tier 1 parties or tier 2 parties in respect of the Poihipi Road application. This may have been a result of the Poihipi Road application being introduced into the consent process at a late stage. And I just – you may recall from yesterday that Mr Stevenson indicated that the decision to include Poihipi Road in the suite of applications was made, he thought, around that time when the letter – the single letter to the McLachlans has been sent out in about July 2007.

At the top of page 5, paragraph 11, “the failure to consult in any serious way with the McLachlans is not in itself a ground for opposition to the proposal and indeed the proposals for Te Mihi and Poihipi are not opposed by the McLachlans. They are happy for the development of Te Mihi and they are indeed consenting – that is the re-consenting of Poihipi to proceed to the extent that the applicant has specified its intentions and has explained the purpose of the consent”. And I should add there, and to the extent that its assessed the potential effects of any proposal that's been outlined.

And the following parts of the submission address the specific aspects of the proposed consents that the McLachlans remain involved in.

Just referring back to the end of that paragraph 11 sir, I've said there that the McLachlans are happy for the development and the consenting to proceed to the extent that the applicant has specified its intentions and has explained the purpose of the consent and has assessed the potential effects. What the McLachlans believe and I submit this as the case. There hasn't been any such identification or explanation of proposals or intentions or any assessment of potential affects in relation to the air discharge as it may affect areas outside of the immediate site or as it may authorise discharges from outside the immediate existing site. That's what I'll be leading to later in these submissions.

So turning then to the scope of the proposed consent conditions for the Poihipi air discharge. The proposed conditions for Poihipi Road Power Station air discharge as set out in the evidence of Mr Daysh include provision for discharge of contaminants from a range of sources throughout the area that's outlined in yellow on the plan in schedule two to that draft set of resource consent conditions. Now, that is attached to the evidence of Mr Daysh and it outlines a discharge application area which extends out well beyond the existing site of the power station and the existing features of it and covers a substantial portion of land that's the farmland occupied by the McLachlans.

Would it be helpful at this stage just to turn to that plan just so that I can explain the consent condition and the way it interrelates with that plan? I understand the PowerPoint is going to give us the bigger picture soon. And the consent condition is in schedule two to Mr Daysh's evidence.

**CHAIRMAN:** His rebuttal evidence or?

**MR LANG:** The evidence-in-chief sir, that second schedule so it's the second tabbed appendix to his evidence at page 55 of that – of the schedules to his evidence. While that map - or plan is coming up.

**CHAIRMAN:** A plan? Do you have a plan?

**MR LANG:** There is a plan right at the very end of that schedule. The very last page of that schedule, certainly in my copy, there's a plan which shows application areas of air discharge.

**CHAIRMAN:** Unfortunately on my copy there seems to be no plan. I've got the conditions but no plan. Oh I see right at the very end.

**MR LANG:** Yes, page 55 I referred to sir, is the page the consent condition is on and the plan is right at the end of that schedule two. So looking first perhaps at the draft condition just above the last sentence above paragraph number 1 right up above condition 1. It refers to discharge – “authorises discharge contaminants to air from Poihipi Road Power Station”. I take that to mean the existing power station itself. “And associated structures located at or about that grid reference including geothermal wells, pipelines and geothermal steam field equipment located within the area bounded in yellow found in that plan in schedule two”. Which is that plan on the last page.

**CHAIRMAN:** Yes.

**MR LANG:** And the area shown on the plan on the last page is the yellow area which contains the existing power station and its associated works and then another substantial area of farmland which is currently leased and occupied by (inaudible) – so we've got the power station site there and

the strip which you may recall from the plan – map yesterday – or the plan yesterday that I put to Mr Kilty, the strip down that boundary is the strip where the present works are located and then the rest of this area here is within the farmland leased by the McLachlans and occupied by them. That's the proposed air discharge area. And the McLachlans have no objection to the authorisation of any ongoing discharges upon the existing works that are located within the area of land occupied by Contact but their case basically is that there's nothing to support that application for discharge from further a field from any feature that may be added in future with an effect. And I'll continue with the submission to address you on that point.

In the second half of paragraph 13 the area outlined in yellow extends beyond the present Poihipi Road Power Station site to include land presently leased and farmed by the McLachlans. Only a small part of the application area is currently used for power station purposes and is Contacts occupation. And that is – that is confirmed by the plan that I referred to Mr Kilty yesterday and the appendix to Mr Pummer's evidence that shows the existing features along that strip - that strip near that eastern boundary of that Poihipi Power Station site.

[12.00 pm]

The application for consent for discharges from geothermal wells, pipelines and geothermal steam field equipment located outside the existing activity area is not supported by any specific proposal to extend the power station equipment beyond the existing power station site. The definition of an area beyond the existing power station site within which discharges are authorised would, in my submission, only be justified if the Board of Inquiry is persuaded on the evidence that such discharges are proposed, that there is actually some sort of proposal for that and are

appropriate within those land areas and from specific equipment. There's no proposal at this stage. The Contact proposal contains no such explanation of its intentions, nor any justification for authorising discharges from any sources other than the existing works.

If any additional wells or pipe work or other potential discharge points are proposed at some future time additional consents may be required from the District Council, we don't know because we don't know what's proposed. Integrated resource management would, in my submission, usually involve the consideration of all aspects of the proposal and their potential effects at the same time including some issues that cross over between District and Regional Council jurisdiction, for example odour and visual effects. The renewal of the consent in my submission can be addressed now in relation to the existing works but not in relation to any possible but unknown and unspecified additional works that may also require other consents.

The evidence of Dr Stevenson on the air discharges is that future energy sources for Poihipi are to be – are presently planned to be from Te Mihi indicating low probability of extraction from the field near to Poihipi. And Mr Kilty has indicated no known plans to add any further plant at Poihipi other than one possible reinjection bore at an unspecified location. And the Board members may recur – may recall that Mr Kilty confirmed yesterday that while he was aware of one proposal to remove an area from the lease to accommodate a possible reinjection bore, where we don't know, he did confirm that he was aware of no other such intention to intrude into that currently leased area.

So really the McLachlans have a concern about encroachment into that farmland and the potential effects it may cause and it's their case that a consent would be authorised and be fine in relation to the existing works,

that the proposal to be understood can be assessed but not in relation to any potential works or unspecified and cannot be understood at this time. And it would go on to land which they currently occupy.

The second issue there is the authorisation of objectionable emissions beyond the Poihipi Road Power Station site. The proposed Poihipi air discharge consent conditions include condition 5, that's on that same page on Exhibit SGD2 which says that the discharge should not result in odour or other gaseous emissions that are objectionable at or beyond the area bounded by the outermost green and yellow lines. So that's the same yellow area of Poihipi. That's in that relation to that condition that this next submission is made.

So that's again – it's authorising objectionable odour and other discharges that are effectively within the McLachlan farm area environment.

Now, turning to the second sentence within paragraph 17, "As previously noted that area...(reads submission)...and justified in the evidence"

So I fully accept in some cases it's simply not possible to contain all the adverse effects of the proposal within the site and they are assessed in relation to any areas that are outside of the actual activity site and sometimes authorised as being the inevitable product of an industry.

I'm not suggesting here that the only option for you is to confine objectionable odours to the immediate locality of the Poihipi Road Power Station site as it's presently occupied. I know that would fly in the face of reasonable exercise of consents to operate that existing power station. But I'd ask the Board to look more closely at what the justification is for the extension of the objectionable emissions area. And look perhaps to the evidence of Dr Stevenson and his assessment of what the effects are

likely to be and how they predict adverse effects in terms of amenity. And if we look at his CS14 as the contour map for odour modelling – sorry for hydrogen sulphide modelling that shows the specific hydrogen sulphide concentration contours around the Poihipi Power Station site and doesn't indicate any prediction that there is a difficulty in containing amenity –

**CHAIRMAN:** Can we just go to that? We can't remember –

**MR LANG:** I think we're just about to get it up again sir. Good service on the PowerPoint.

**CHAIRMAN:** This is the map you referred to yesterday?

**MR LANG:** CS14 please. (inaudible) contains part of that. The area that shows a 70 micrograms per cubic metre odour - sorry hydrogen sulphide contour doesn't go out anywhere near the boundaries of that air discharge application site that's shown as the yellow area in the map. It covers a portion of that area, but it certainly doesn't extend out anywhere near over the whole of that air discharge application area that's outlined in yellow. And while I can't argue that there should be an odour control or a -

**CHAIRMAN:** Excuse me, this is not the same map we were looking at yesterday is it?

**MR LANG:** I think maybe it is.

**CHAIRMAN:** It is but it hasn't got the different colours.

**MR LANG:** It may be cropped in some way because the CS14 that I have is in more detail and more focused around Te Mihi and Poihipi.

**CHAIRMAN:** Where's the one we were looking at yesterday? Didn't you produce one? You didn't produce it but you gave us a look at it.

**MR LANG:** Do you mean the contour map of the discharge sir?

**CHAIRMAN:** Yes

**MR LANG:** I've – mine - the CS14 that I have in my evidence it may be the same as that. It may be that the green 70 microgram per cubic metre line just doesn't show up well in that PowerPoint. I think these are the same contour maps – contour plans except on this one from where I'm standing I can't see that 70 microgram per cubic metre. But if you look at the plan, the paper print of it clearly the 70 contour line is touching on and covers part of the north western portion of that air discharge application area, but certainly doesn't extend down into the southern and eastern portions of it, I can show on here.

**MR NUGENT OR PROF BROWNE:** That's the green one isn't it?

**MR LANG:** It's the bright green line.

[12.10 pm]

**MR NUGENT OR PROF BROWNE:** And then the purple one is the 100 isn't it?

**MR LANG:** That's the 100. And then out from that the blue is 50. And the application area if you look on here - thank you, that's gone too far I think. Go back out a bit. The application area for air discharge consent goes down to the corner of Tukairangi Road - thank you - and around there. That's the area bounded in yellow. And what I suggest is that there should be some care exercised in fixing the boundary within which

adverse odour effects and other gaseous submissions that are objectionable should be treated as acceptable.

**CHAIRMAN:** So what are you submitting? That it should be within the 50 meters?

**MR LANG:** It should be a much more restricted area. And it should be based around the Contact predictions. And there should be some monitoring to go with it.

**CHAIRMAN:** Well are you submitting that it should be within the 50 contour?

**MR LANG:** I'd suggest that a logical way to approach it would be to work around the 50, I think it's right, micrograms per cubic metre contour. And that allows some extension beyond the predicted 70 micrograms per cubic metre contour which is treated as the odour effects threshold. But I just don't believe that I can argue that it should be constrained to the existing Contact site. I think that would be unrealistic in relation to an existing power station even if there are some other treatment methods that might be available.

And in relation to the discharge area, what I suggest is that should be constrained to the existing infrastructure. That is to the existing works because there isn't any thing to justify going beyond that. Nor indeed any stated proposal.

And continuing -

**CHAIRMAN:** Sorry, just wanting to be exactly sure what you're submitting. You're saying that the discharge area should be limited to where the existing works -

**MR LANG:** The discharges should be authorised to either an area which is identified and contains the existing works or discharge should be authorised from existing works.

**CHAIRMAN:** Yes, but as I understand it the – I may be wrong, but the – what I want to know is how do you define those areas? It's all very well saying that to us, but it's not our job to go down and get out a map and say this is how we define it.

**MR LANG:** Either by referring to the works of the type that are described in the conditions as they exist at the time of the hearing, that simply -

**CHAIRMAN:** That would create – allow inflexibility within the Wairakei - within the Te Mihi area would it?

**MR LANG:** Well I'm only suggesting this in relation to Poihipi sir.

**CHAIRMAN:** In relation to Poihipi?

**MR LANG:** Poihipi yes.

**CHAIRMAN:** So what you're saying is to - to confine it to the land area under which they have control at the moment?

**MR LANG:** To either refer to the plan that I – I didn't have it produced as an exhibit yesterday -

**CHAIRMAN:** Well I think what you need to do is to put up some proposed conditions for us to consider.

**MR LANG:** Yes sir I can do that I -

**CHAIRMAN:** We don't – rather than – otherwise we – if we accepted your submission we would have to give an interim decision.

**MR LANG:** What's that?

**CHAIRMAN:** An interim decision of a draft decision.

**MR LANG:** Oh no, I don't want to encourage that or be held responsible for that sir no.

**CHAIRMAN:** Well, no.

**MR LANG:** Well sir one option is simply to modify the wording in the draft.

**CHAIRMAN:** Well you do that over lunchtime.

**MR LANG:** Okay so I'm not to do it now then?

**CHAIRMAN:** No.

**MR LANG:** All right I'll do that over the lunch break, but –

**CHAIRMAN:** And let the other parties have a look at it.

**MR LANG:** Yes. The concept is understood sir?

**CHAIRMAN:** I understand your concept, but we need some particularity if we have to give consideration to changing a present condition.

**MR LANG:** Yes, yes that's entirely fair sir. So at paragraph 18, I believe.

**CHAIRMAN:** And similarly for the second - similarly for your second issue and that is the area of pollution, if you like, or the area of effect, to be constrained to the 50 micrograms per cubic metre.

**MR LANG:** I'll draft those and discuss it with my friends over the break sir.

**CHAIRMAN:** Yes, contour on exhibit 14.

**MR LANG:** I'll come back to that after sir.

**CHAIRMAN:** CS14.

**MR LANG:** So at paragraph 18, "The approach taken by Contact ...(reads)...in schedule 1 could be interposed". And in that case I have suggested a draft condition as schedule 1 based on the Te Mihi conditions for monitoring and that's really following very closely along the wording that has been suggested for consent conditions before Te Mihi, but this is in relation to at the entrance to the power station at Poihipi Road. "A condition of the type set out in schedule 1 could be imposed if the Board considers it appropriate, a non-statutory power of review to reduce or eliminate monitoring could be added to allow response to results confirming the modelling effects and if that is considered appropriate and an initial period of two years' monitoring is suggested before any such review". So, just acknowledging that if there is consistent production of results from monitoring that show there is no issue, then it couldn't be argued against a reduction or an elimination of that modelling after a period of say two years. I haven't included that part in the draft.

**CHAIRMAN:** Yes I can see where you are coming from, but as I understand the present conditions of consent relating to air discharges, and I may be wrong, because it's - I've only read the conditions carefully once, but as I understand it the expert, Dr Stevenson, has suggested a modelling or monitoring programme which has flexibility to it and where that flexibility can be adapted to needs without the requirement of a review clause. Would it not be better to somehow tie this suggested clause into that adaptive management of the monitoring suggested by Dr Stevenson?

[12.20 pm]

**MR LANG:** So this could be included in that regime but that regime doesn't provide any certainty that at any point in time there will be monitoring close to the Poihipi Station.

**CHAIRMAN:** I understand that.

**MR LANG:** And that's the one thing that I am looking for.

**CHAIRMAN:** I understand that you want - but I'm saying rather than having it as a condition outside, somehow attach it to it. Attach it to that adaptive management. In other words for a two year period, but rather than a review, have it so that after the two year period it can be changed by Environment Waikato as part of, I think, to tie it in with the wording. Do you see what I mean?

**MR LANG:** Yes I do sir. I can see how that would fit in with the existing suggested conditions.

**CHAIRMAN:** Yes. Rather than having the applicant go through all the need of a review process.

**MR LANG:** Oh sir I wasn't suggesting it as a section 128 review or something as formal as that. I was just suggesting that there may be a power reserved to it to determine that it is not necessary after two years, but I can see it's got a greater certainty and reliability if it's built into that.

**CHAIRMAN:** I can understand a need for that, yes.

**MR LANG:** Well I could have a look at some redrafting of that over the break sir, as well.

**CHAIRMAN:** Yes.

**MR LANG:** So those are the issues that I intended to raise. If there are any questions arising out of that other than those that have already come through?

**CHAIRMAN:** No, so thank you Mr Lang.

**MR LANG:** I will address you again after the break then sir.

**CHAIRMAN:** Yes, in relation to those conditions.

**MR LANG:** I will discuss them with the others on the way through.

**MR BROCKELSBY:** I think sir, as I mentioned, we have no submissions.

**CHAIRMAN:** If you'd just like to come forward.

**MR BROCKELSBY:** I might ask Arnold Watson to take the chair first. Unless  
you wanted me to address -

**CHAIRMAN:** No, no. No doubt Dr Watson wants to get away.

**ARNOLD WATSON (Affirmed), called [12.29 pm]**

**CHAIRMAN**

Q. Just for the record do you confirm that the evidence that you have already  
filed is the evidence - is true and correct?

A. Yes sir.

**CROSS-EXAMINATION BY MR ROBINSON**

Q. Dr Watson, the first point I just wanted to canvass with you, you've noted  
that you had some involvement preparing the Geotherm multiple operator  
protocol and I don't for a minute wish to take issue with your suggestion  
that that places you in any conflict position. There's just one point of fact.  
My understanding was that you were working to quite a tight deadline in  
that process?

A. That's right.

Q. And that to meet that deadline, one of the exigencies meant that you  
weren't able to make arrangements to discuss the content of your draft  
operator protocol with Contact before it was submitted?

A. That's right. It had to be done within seven days of the day on which they  
approached me.

Q. And I understand also in relation to the geothermal issues, that you have  
had the opportunity to discuss the technical issues underpinning your  
evidence with Professor O'Sullivan?

- A. Yes. In respect of the effect on Geotherm.
- Q. In respect of the effect on Geotherm?
- A. Yes.
- Q. And I just want to put you my understanding as Professor O'Sullivan has relayed it to me, of what he thought was your position in that discussion because, for various reasons I need not go into, we haven't got a documentary record. So first, my understanding is that as a matter of principle you agreed with Professor's O'Sullivan's evidence that the predominant fluid flow from re-injection would be towards the pressure sink created by past Wairakei extraction. Is that correct?
- A. That's right yes. That would be the predominant flow. I was concerned about minor variations in that flow.
- Q. Yes I was going to say, that was the next point obviously, that your concern is that there will be some subsidiary flow in the Geotherm direction?
- A. Yes caused by Geotherm's operation where its reinjection and its production are very close together, so that Professor O'Sullivan's argument, reasoning, is that there is a sink in the Contact production areas, including Te Mihi, where the pressure has been reduced as a result of taking fluid out and any reinjected fluid would flow back to fill that hole and that's very sound reasoning. Nobody could object to that. But just where Geotherm is operating with its own little local production and reinjection there may be a little alteration on that main flow.
- Q. And that same reasoning would suggest, and I wonder if I should find a map to put to you, so that you could actually point out to the Board of Inquiry the areas you are talking about. Could I ask Mr Wilding to put up Mr Carey's exhibit, I think it's let's say exhibit 9 - no 8, BSC8. This is just for clarification so that Dr Watson can explain the - Mr Carey's exhibit 8. This is just for convenience because this happens to be –

**CHAIRMAN:** Mr Carey was volume 1? No, Volume 2.

**CROSS-EXAMINATION CONTINUED BY MR ROBINSON**

Q. And Dr Watson if you can make out the Geotherm consent area.

**CHAIRMAN:** Could you just – it's just that if I want to write on it, I can't write on that. It's BSC?

**MR ROBINSON:** 8. In Mr Carey's rebuttal evidence, I apologise sir, I should have thought of that. It was just the first map I could recall the number of.

**CROSS-EXAMINATION CONTINUED BY MR ROBINSON**

Q. So perhaps if you could take the pointer in hand and perhaps start with the Geotherm consent area Dr Watson?

A. That's the Geotherm consent area with the blue line surrounding it. That's the Poihipi consent area. Wairakei Power Station is across here. Te Mihi area is up here.

Q. And so when I invited you to confirm that the predominant flow would be towards the pressure sink, do you identify where that would be?

A. Yes the pressure sink is generally in the middle of the field here. So the pressure there would be lower than say around here. So if you were to reinject here you would expect the flow to go across there, or if you inject here you expect it to go that way or likewise, generally to fill this hole in the middle. That's the main point isn't it?

[12.30 pm]

Q. Yes. Thank you Dr Watson and that logic would suggest that, as you identified it, that area to the south of the Geotherm consent area is in principle likely to be more of an issue in terms of interference effects than to the east or north of the consent area?

A. Yes, that's right, this area around here.

- Q. And in relation to that southern area, the issue in practice would be because the Geotherm planned reinjection is itself to the south of the production, whether any Contact reinjection would have any materials - incremental adverse effect over and above the Geotherm reinjection, is that fair?
- A. Yes. Yes, I hadn't put it quite that way. I'd put it a different way. There's a sink in the middle and anything injected will tend to flow towards that sink from wherever, but Geotherm itself is going to raise the pressure there locally and in the same area reduce it at different levels. So, the pressure variation around the Geotherm property is not really very predictable and I was concerned that any fluid reinjected here would certainly go in that direction but I was also concerned about fluid injected here might also go in that direction because of the local effects that Geotherm was producing, superimposed on the main effect that Professor O'Sullivan has pointed out.
- Q. And would you agree that the best way to resolve those issues, rather than having the experts advising the respective parties, is to have someone independent looking over it?
- A. Yes. Yes, of course.
- Q. And would you also agree that the Peer Review Panel is going to be in the best position to assist in making those kind of determinations?
- A. Yes I think the Peer Review Panel will do it. It's the nature of the business that it's long term. The consents are for many years and it's difficult to predict what's going to happen. So you do need a Peer Review Group. I'm pleased to see in the agreement, if I can mention that, that in fact the Peer Review Group has been instructed as to what it should consider. I think that's important, rather than just say well we'll leave that to the Peer Review Group. I think we need to figure out now what it is that we want the Peer Review Group to do when it is called upon to address that issue.

- Q. And just for the purpose of clarification, perhaps to be clear, that in terms of what the Peer Review Panel have been instructed to consider, that is the joint recommendation of Contact and Geotherm, rather than -
- A. That's correct, yes.
- Q. So it's a matter still for the Board to consider?
- A. Yes, that agreement is, yes.

**CROSS-EXAMINATION BY MR HICKMAN**

- Q. Dr Watson, just in respect of your comments in your answer to my learned friend's question regarding the direction which is given to the Peer Review Panel in terms of the agreement which has been reached between Contact and Geotherm, would you accept that that - those obligations or those requirements are a feature of the secondary objectives of the discharge strategy? Sorry, so that the primary objective of the strategy remains the central focus?
- A. I'm sorry you've lost me.
- Q. Sorry Dr Watson. At paragraph 4 of the memorandum which was circulated which you've sighted a copy of.
- A. I've sighted a copy yes.
- Q. And it talks about the condition which has been agreed upon between Geotherm and Contact and in particular the matters which the Peer Review Panel shall be instructed to have regard to before approving a discharge strategy and those matters are whether the reinjection will facilitate further extraction, whether that reinjection was integrated with takes under an existing consent held by Geotherm and so on, but those are matters which - sorry I should go back one step. Are you familiar with the discharge strategy consent conditions that were settled by the Environment Court?
- A. I'm aware of them, without being familiar with them in detail.
- Q. And you are aware that the primary objective of that discharge strategy is the need to address the adverse effects of subsidence?

A. Yes.

Q. So in terms of where the Peer Review Panel would - the focus of the Peer Review Panel in terms of the conditions which now have been agreed, its focus would be limited to the secondary objectives of that Peer Review Panel.

A. Yes I understand what you are saying, yes. Yes, those conditions set out in that Memorandum of Understanding don't override any other requirements, the primary requirements for reinjection.

Q. So the primary objective remains?

A. Yes.

### **PROFESSOR BROWNE**

Q. Dr Watson, in a related issue we've heard evidence from yourself in written form and from Mr Bromley about reinjection into steam zones and it arose yesterday when Mr Bromley answered some questions and we talked about - we had evidence from him about targeted versus remote reinjection and it seems that the collapse of the steam zone seems to be, from what we heard, a possibility which will have - could have effects that aren't quite predictable. How would you see remote reinjection affecting the steam zone and would remote reinjection, you'd favour it into the liquid zone?

A. Well I wasn't here yesterday, so I didn't hear what Mr Bromley said. By remote you mean some distance from a supposed steam zone?

Q. Yes.

A. This whole idea about the condensation of steam zone being a concern as a mechanism for enhanced subsidence is only an idea. It seems a very reasonable idea but there isn't any evidence to suggest that that's an important mechanism that's taking place here. Nevertheless, it is a matter of concern. The trouble is that I don't know what one should do about it. I think reinjecting into the liquid zone is certainly one way of tackling it. You would then be sure that you weren't going to reinject equal fluid into a

steam zone, you'd make sure it was going into the liquid zone but that's one way of avoiding the issue. Does that help?

[12.40 pm]

- Q. Yes. Thank you. Do you see, if that's the case, would it be difficult or easy to identify steam zones from liquid zones? Would that information derive from well measurements or from modelling of the type that Professor O'Sullivan has entered in evidence?
- A. It could certainly come from well measurements, if there were wells in the area. If, for example, we were interested in or concerned about the Crown Road area then there aren't any deep wells there and neither would I trust Professor O'Sullivan's model there, the way I would trust it elsewhere, simply because there aren't any deep wells there. He simply hasn't got the information to improve the model. So it does pose a problem, but of course there isn't proposed to be any reinjection in that area, so it may not be a problem.

**CHAIRMAN:** Thank you Professor. I have no questions doctor, thank you very much for your assistance.

(Witness excused)

**MARK BROCKELSBY (Affirmed), called [12.41 pm]**

**CHAIRMAN**

Q. Just for the record, can you confirm that the evidence that you have filed to date and which we have read is true and correct?

A. Yes I do.

Q. You can just tell us what -

A. Right, yeah there were the several issues that were raised yesterday that the Board asked me to comment on. There were three issues in fact. Firstly, what did we think about the conditions agreed between Geotherm and Contact. Secondly, whether Contact's consents should be the subject of or subject to similar MOP provisions as in the Geotherm consents to address disputes and thirdly, whether the Contact reinjection consent should incorporate the general conditions. I think Mr Nugent raised that point. So just addressing those in turn.

The first issue about the agreed conditions, I think our view there is that we have no issue with the concept proposed there, the - firstly, the well exclusion zone and then secondly, the Peer Review Panel approval zone, if I can call it that. I think the only concern that we have is the same as I have alluded to in my evidence at various points, which concerns the actual difficulty in practice in distinguishing between the exercise of the new Te Mihi consents, compared with the existing reinjection consent. So, I mean, I'm just noting that the agreed conditions are written in a way which confines their effect to just the new Te Mihi consents because obviously the terms and conditions of the old consents are not on the table. So, from that point of view that's perfectly reasonable but it does create a bit of an issue from a regulatory perspective, if those conditions ever had to be enforced, in terms of distinguishing in practice which consents were actually being exercised, and I'm not sure what more I can say about that, but that does appear to be an issue in terms of practical regulatory management.

In terms of the second point, again looking at it from a regulatory perspective, I think imposing the condition suggested, that's the reciprocal MOP condition, would cause some complications and I'm not sure that it's necessary. The issue that I see is akin to what I've just described as a problem for the agreed conditions, that ...

[12.45 pm]

**MR BROCKELSBY:** The issue that I see is – is akin to what I've described as a problem for the agreed conditions. That in reality there's little to distinguish the exercise, you know, on the ground between the existing consent and the new consent and yet the suggestion is that there would be a separate MOP relating to the exercise of the new consents as distinct from the one that is required with the Geotherm consents. So presumably they could contain different requirements in theory and apply to the exercise of different consents but those consents being operationally indistinguishable. So I do see a bit of an issue there. I would also add to that, that the implication that a new MOP be established for – for every new application on a field implies that you not only have multiple operators, but you have multiple MOPs and I'm not sure that that's conducive to – to sort of proper effective regulatory management.

Further to that, the policy that relates to the MOP specifies a number of matters that the MOP should address and that's policy 5. But the reality is that the issue here that is of most concern is – is the issue of interference between two operators. And as I see it, that issue is addressed by the agreed conditions albeit the proviso that I mentioned around that. So I'm not sure that it adds a lot of value in that – in that sense.

Your Honour suggested that the agreed conditions have the effect of drawing Environment Waikato into the interference issue – well, in the

blue hatched area in any event, and that the MOP was a mechanism that might avoid that. But I think that the reality is that that issue is squarely in front of EW anyway through its role in approving the discharge strategy. And in that regard it seems to me that the – the wording that the greatest specification around the criteria that have to be considered in the Peer Review Panel giving it's recommendation in that blue hatched area is really, if you like, adding some flesh to the bones of what is already there or making explicit what was already implicit. So I think that Environment Waikato was already involved in that process.

So turning to the third issue, which was Mr Nugent's point whether there was a case for referring in the new reinjection consents to the general conditions. I have no problem with that as a concept. The only thing I would say we would need to do there is to ensure that there was a review mechanism appropriately worded to ensure that when the existing consents and the existing general conditions are renewed in 2026, which they presumably will be, that there is a review mechanism to bring the Te Mihi consents into line with that because from a regulatory perspective we would be looking to have one set of general conditions. So we would need that opportunity for review. And there is a suggested condition already to that effect I think but it might just need some tweaking of the wording to reflect the slightly different approach.

[12.50 pm]

I think they were the issues sir that you wanted me to address.

**CHAIRPERSON:** Yes thank you Mr Brockelsby. Mr Robinson any questions?

**MR ROBINSON:** Only three and it may turn into two depending on the answer to the first one.

**CROSS-EXAMINATION BY MR ROBINSON**

Q Mr Brockelsby, Mr Chrisp gave his understanding of the status of the Geotherm Multiple Operator Protocol, can you confirm, obviously you are in a better position to confirm, can you confirm what the status of that protocol is?

A Yes I can, it's on hold. When the – the document was lodged it seemed to me that given that we had no imminent project, we had no likely imminent exercise of the consents nor did we know who the consent holder would be, there didn't seem to be a lot of point in going too far down the track of finalising the MOP, so I suggested to the parties that we put it on hold and that appeared to be agreed to.

Q Thank you Mr Brockelsby.

**MR NUGENT**

Q Mr Brockelsby there's just one thing from your comments. As Mr Chrisp clarified, the discharge strategy is the mechanism by which the Peer Review Panel overview where reinjection wells will occur.

A Yes.

Q Wouldn't it be the case that when they were doing that on the existing consents because of the objectives about facilitating the use of the resource they would have to consider the interference effects from Geotherm anyway?

A I agree.

Q So in that respect there's probably not the administrative issue that you see in having the two consents slightly different – differently conditioned. It's just that in one it's explicit and one it's implicit.

A I'm not sure I understand the connection between the two. The issue I was raising in the first – in terms of the agreed conditions?

Q Well in both the agreed condition and the – well, particularly in the agreed condition you said it would – could create administrative difficulties. Are they – if the Peer Review panel have overseen it won't they have taken

that issue into account in coming to the conclusion that it is appropriate to reinject in any particular location?

A I see what you mean. I'll refer back to the actual conditions -

Q I think it's the first secondary objective of the discharge strategy which is to facilitate better or enhanced use of the resource.

A Yes I think – I think the issue – yes I think – I mean I agree with you. The issue is perhaps more in relation to the well exclusion zone where the agreed conditions would exclude drilling in that exclusion zone, but there is no similar provision in the conditions relating to the existing consent.

**PROFESSOR BROWNE**

Q Yeah, Mr Brockelsby when would you expect the Peer Review Panel to begin - begin reviewing?

A Do you mean when will they be in place and operational?

Q Yes, right. Yes please.

A Hoping to have them – we're right in the middle of the process of establishing the Peer Review Panel now and if all goes to plan I'm hoping by September this year to have the Peer Review Panel operative.

Q Thank you.

**CHAIRPERSON:** Mr Nugent will you ask the question?

**MR NUGENT:** Well I'm not sure – I'm not sure that Mr Brockelsby is the right person to answer it, that's why I put it to you.

**CHAIRPERSON**

Q Well I think it arises out of your differentiation between the existing consents and this new consent and the administrative difficulties we may have as - not you but the Council - Regional Council may have in enforcement.

A Yes.

Q And Mr Nugent has indicated well would not the IEA GIA (ph) - would not the buffer zone effectively be an IEA GIA (ph) consent - an IEA GIA (ph) be undertaking under the IEA GIA (ph) principles for the old consents?

A I wouldn't have thought that could be applied to an existing consent that's not on the table, but I'm not a lawyer.

**CHAIRPERSON:** I think that's as far as we can take it. Yes thank you Mr Brockelsby. Thank you for your assistance.

(Witness excused)

**CHAIRPERSON:** So that just leaves you Mr Hickman. Are you ready to start after lunch?

**MR HICKMAN:** I'll be ready to go after lunch sir.

**CHAIRPERSON:** Yes thank you for that well we'll adjourn until 2 o'clock

**ADJOURNED [12.58pm]**

**RESUMED [2.00 pm]**

**CHAIRMAN:** Yes Mr Lang.

**MR LANG:** Thank you sir. Now I have prepared some alternative draft consent conditions and circulated those. Hope they're not too difficult to read, they are in my own printing. There should be two pages annexed there, the first one is a suggested replacement introductory part of the Poihipi Air Discharge consent and the issue there was to try and devise a provision that relates to discharge, to discharge from existing structures or existing works. So I would suggest an alternative wording that if the consent is to discharge contaminants to air from the power station, which I understand would be always referring to the existing power station, and associated structures, existing and used, in connection with the Poihipi Road Power Station at 21 July 2008. And then the description "including geothermal wells pipelines, geothermal and steam field equipment".

And the suggested replacement for condition 5 is intended to describe the objectionable discharge limits, so it's suggesting that the discharge should not result in odour or other gaseous emissions that are objectionable at or beyond the area bounded by, and then instead of "the area outlined in yellow" we've got "bounded by (a) the 50 microgram per cubic metre contour surrounding the Poihipi Road Power Station shown in Plan Exhibit CS14" which could be attached as Schedule 3, and "also bounded by Poihipi Road" so that where the contour doesn't form a complete surround for the Poihipi Road Power Station, to complete the surround it needs to have Poihipi Road as one further boundary; the contour actually runs off towards Te Mihi because there's a joint contribution to that contour. So it's suggesting that it be bounded by that 50 microgram contour and by Poihipi Road.

And then the second page contains a suggested addition to the condition in my Schedule 1 and so you'd suggested perhaps merging this into the Te Mihi consent condition that has the flexibility built in, but looking at that myself and discussing it briefly with my friend counsel for Contact it seemed that the merger of the two would be problematic and that it may be simply better to add this non-statutory review opportunity to sit just within that Poihipi Road monitoring requirement, so that from two years after the commencement of the consent, a non-statutory review may be undertaken by the Regional Council to determine whether the monitoring required by this condition is still required or should be modified as to ongoing level and frequency. And so that would allow account to be taken of consistent benign results from the monitoring. So it's not intended as a section 128 review or anything similar that might involve third party intervention, it's simply the opportunity, as is often done, to allow the Regional Council to moderate the monitoring if that's seen as appropriate in the light of the results so far.

**CHAIRMAN:** The first part on page 1 of the document you've just handed up, what is that meant to replace?

**MR LANG:** The introductory portions to the discharge to air consent for Poihipi. It's not a numbered provision, it is the introductory portion of that draft condition attached to Mr Daysh's evidence.

**CHAIRMAN:** Sorry what did you say?

**MR LANG:** It's the introductory portion of the air discharge consent for Poihipi that's contained in Mr Daysh's schedule.

**CHAIRMAN:** And is that meant to replace that? What Mr Daysh has got?

**MR LANG:** To replace the introductory wording in Mr Daysh's version. It's following the same wording except where it sets the boundary, so in the existing draft condition where it says "equipment located within the area bounded in yellow shown on the plan". Now it says "from the Poihipi Road Power Station and associated structures existing and used in connection with the station" as at that date. So instead of defining the location within which the structures are to be confined it just refers to the structures that are existing at that date.

**CHAIRMAN:** Which would require Contact to get a resource consent to build a new extraction well.

**MR LANG:** Yes sir.

**CHAIRMAN:** Well –

**MR LANG:** Well it's a discharge from equipment that it erects after that day if it's outside of the existing works.

**CHAIRMAN:** But wouldn't that be controlled by the – by the amount it's entitled to discharge?

**MR LANG:** There's no – no assessment anywhere in the consent materials about any other discharges. There's an assessment of the effects of a discharge at a particular level, but there's no evidence anywhere else about location or nature or anything associated with any other discharges. And that was the thrust of my submission, that there's nothing there to allow assessment of any other discharge, whether it's in terms of a visual effect, the amenity effect or of noise or of hydrogen sulphide, there's nothing there.

**CHAIRMAN:** But aren't the emissions content-controlled?

**MR LANG:** Yes sir, the hydrogen sulphide --

**CHAIRMAN:** Yes.

**MR LANG:** -- emission limit is there.

**CHAIRMAN:** So wouldn't that be the control?

**MR LANG:** That is a way of controlling hydrogen sulphide sir, but there's no assessment.

**CHAIRMAN:** See otherwise you're --

**MR LANG:** There's been no modeling of that.

**CHAIRMAN:** It flies in the face of adaptive management doesn't it, requiring resource consents for something which Contact may consider necessary to adaptively manage their reservoir.

**MR LANG:** There's no proposal of that sort --

**CHAIRMAN:** Well there may not be now but there could be within a 35 year period.

**MR LANG:** There could be sir and what I'm suggesting is that if they're going to engage in the adaptive management programme that it has not been identified as a proposal now, it's not been described to the Board, it's not part of any current proposal, that it should be addressed at a later time.

**CHAIRMAN:** My question is well what does it matter providing the emission rate is controlled?

**MR LANG:** Well sir there may be other aspects of the discharge, there may be visual effects, there may be noise effects, there may be other effects that link in with any District Plan requirements that there may be at that time too. And that integrated management for the resource needs to take account of all of those things ideally together, rather than assuming now that any such discharge will require nothing else in the way of consents no matter where it's located or at what dimensions or at what rate of emission, what visibility; it assumes on this basis that all of those things will be okay as long as they're within that yellow area that includes the farm land.

**MR NUGENT:** Just going on from that point, wouldn't it be better to identify on a plan the delineation of the areas that are presently used, in other words a smaller area that is shown as the consent area? Because, for instance, if Contact chose to put a new extraction well in 50 metres from where the present wells are in Poihipi Road, under this proposal they would need a new consent but in reality they shouldn't because it's the same sort of thing. And I think what you're trying to get at is to encompass them within the area they presently operate, isn't that –

**MR LANG:** That's really the better test, it could be achieved, as you say, by delineating the area, and for that purpose the plan that was put to Mr Kilty could be adopted and he's confirmed that that plan when compared with the present occupation area diagram in Mr Pummer's evidence, the two appear to be quite – and if it was considered better to restrict the discharge sources by area rather than by structures then that plan or something very similar to it could be used. It appears to include those areas or it could be some margin layered around it. Yes that would be

another way of doing it and perhaps more efficient. And that would then allow works in between the existing wells to be constructed, perhaps in the same sort of area without intruding further into the farm land, and that could be delineated in that way, yes. And if that was chosen as a preferable option, then I would suggest that plan that was put to Mr Kilty could be –

**CHAIRMAN:** Which plan is that?

**MR LANG:** That was the plan yesterday sir with the orange boundary of power station site that I put to Mr Kilty as containing, having been drawn in such a way as to deliberately contain the existing works. I've got an additional copy or two of that here if that's going to be helpful.

**CHAIRMAN:** Oh yes I remember the one, yes. That's the one showing in orange?

**MR LANG:** Yes sir.

**CHAIRMAN:** Which is the existing work area if you -

**MR LANG:** The activity area, yes. And Mr Kilty did confirm that it appeared to have been drawn to deliberately contain, and it appears with some margins the existing works areas if it's compared with Mr Pummer's diagram.

**CHAIRMAN:** Yes thank you.

**MR NUGENT:** I have another question in terms of your second page. I'm just wondering, if the intention is that after two years monitoring shows that there has been no excessive odour issue, and I'll leave it to you to

describe what is the appropriate level, I'm wondering whether instead of saying a Statutory Review it might be better to say that if after two years the results achieved a certain standard then the Council may allow the monitoring to discontinue. I'm wary of saying a Non-Statutory Review because you're suggesting a section 128 review without using section 128.

**MR LANG:** A section zero review perhaps.

**MR NUGENT:** Yes.

**MR LANG:** Well even perhaps if it referred to consistent compliance with, or consistently showed the emission rates not exceeding the 70 microgram per cubic metre.

**MR NUGENT:** Something like that I think would be more specific and certain as to at what point the Council could then discontinue the monitoring.

**MR LANG:** Or reduce it yes.

**MR NUGENT:** Yes.

**MR LANG:** Yes I accept that comment, I think it's appropriate, if it can have some at least guidance, if not limits, included within it and the 70 microgram per cubic metre concentration appears to have been adopted without contest so far. It may be that if there's consistent compliance during the first two years with that then the discretion could be exercised.

**MR NUGENT:** Yes.

**MR LANG:** It should probably still be a discretion though.

**MR NUGENT:** Yes.

**MR LANG:** It may be just a margin in or out.

**MR NUGENT:** They may want to well increase it, yes.

**MR LANG:** But no, I accept that would be a helpful way forward, yes.

**CHAIRMAN:** Yes okay. Yes thank you Mr Lang. Mr Hickman.

**MR HICKMAN:** Sir I have prepared some written submissions.

**CHAIRMAN:** Yes thank you.

[2.15 pm]

**MR HICKMAN:** Sir I must apologise to my learned friends, I haven't been able to supply them with a copy of the case which I have provided to the Court, we'll circulate that shortly, I'm certain it's a case that they'll be familiar with, a decision from the Environment Court in relation to the policy appeals on the geothermal modules off the regional policy statement and the regional plan.

Sir, the District Council appears and presents its submissions before the Board today in two distinct capacities. The first relates to Council's role as the consent authority under the Resource Management Act with ultimate responsibility for administering the land use resource consents in the event that the Board is minded to grant consent.

"In its second capacity, the Council is adopting a familiar stance, or familiar role, in acting as an advocate for its community in respect of the

resource consents sought for re-injection and the irrigation of...(reads submissions)...eight broad categories, which I've outlined at paragraph 5.

In conclusion, the submission notes, "that while Council consider the proposal would result...(reads submissions)...from the Wairakei-Tauhara geothermal system". Sir, I don't propose to read that, I'll take it as read.

The reason for Council's involvement is recorded in the Environment Court's decision on the re-consenting appeals. Sir again I won't read that quote but note that Council was particularly, and is particularly concerned about geothermally-caused land subsidence.

If I may turn to paragraph 24 of my submissions. "This hearing is of course not an opportunity to revisit...(reads submissions)...over which reinjection may take place".

Turning to steam zone quenching briefly, "Dr Watson on behalf of the Regional Council...(reads submissions)...primary objective of the discharge strategy".

Turning to the joint memorandum of Contact Energy Limited and Geotherm Group Limited. Council appreciates the concerns of Geotherm Group Limited...(reads submissions)...as outlined in paragraph 7 of the joint memorandum".

[2.30 pm]

**CHAIRPERSON:** Yes thank you Mr Hickman.

**MR HICKMAN:** Sir, I will now call my only witness, Miss Platts.

**MR HICKMAN CALLS**

**GEMMA FRANCES PLATTS (Sworn)**

- Q Miss Platts would you please confirm that your full name is Gemma Frances Platts and you are employed by the Taupo District Council as an intermediate environmental consents planner?
- A I can confirm that.
- Q Now you have – could you please confirm also that you have circulated a brief of evidence and that you’ve also circulated comments on the section 42(a) report?
- A Yes that’s correct.
- Q And that the contents of those – both those documents are true and correct to the best of your knowledge.
- A There’s just two points in terms of my evidence that I’d like to raise in just a minor alteration to those wordings.
- Q Now this is at – sir at paragraph 4.4.2 of Miss Platts evidence at page 6. Now at – now Miss Platts you have recorded in the second bullet point to paragraph 4.4.2 of your evidence that the proposed tower will be 23 metres in elevation. Do you wish to change that?
- A Yes that’s correct. I wish to change it to the – the final sentence to read as follows: “The proposed towers”, so that’s plural, “will be 45 metres in elevation as per the application by Contact”.
- Q And delete the reference to “complies with the diameter requirements” is that correct?
- A That’s correct.
- Q And the other matter which you wish to clarify is at paragraph 4.3.1 of your evidence. Which is on page 5?
- A That’s correct.
- Q And this relates to the second bullet point. Again the maximum building coverage. What changes do you wish to make to that?
- A It – it states there that the switch yard will have a footprint of up to 15,000 metres squared as per the evidence presented by Mr Pummer, that has

obviously be altered as a result of the change to the layout of the  
switchyard and it's now 18,700 metres squared based on –

**CHAIRPERSON:** Sorry 18,000?

**WITNESS:** 700 metres squared. That's based on the 110 metres by 170 metres  
in page 29 of Bernd Pummer's evidence.

**MR HICKMAN:** Thank you Miss Platts would you please answer any questions  
that my learned friends may have for you.

**CHAIRPERSON:** Mr Lang?

**MR LANG:** No thanks.

**CHAIRPERSON:** Mr Robinson?

**MR ROBINSON:** No thanks sir.

**CHAIRPERSON:** Mr Nugent?

**MR NUGENT**

A I just have one question or clarification. In your tables – table one  
paragraph 7.2 on page 19. And you've got there listed third from the  
bottom 3M.2.2 talking about contaminated sites, this – this isn't a  
contaminated site is it?

A No that's not - it's just in relation to the hazardous substances which are  
associated with this application.

Q Right. Okay. Thank you.

**CHAIRPERSON:** Miss Paine?

**MISS PAINE:** No.

**CHAIRPERSON:** Professor Browne?

**PROFESSOR BROWNE:** No thank you.

**CHAIRPERSON:** And I have no questions Miss Platt thank you for your assistance.

**MISS PLATT:** Thank you Your Honour.

(Witness excused)

**CHAIRPERSON:** And that's your case Mr Hickman?

**MR HICKMAN:** Yes that concludes the case for the Taupo District Council sir.

#### **CASE FOR TAUPO DISTRICT COUNCIL**

**CHAIRPERSON:** Yes and so that remains for us now to only have your closing which perhaps we could suggest you do tomorrow morning.

**MR HICKMAN:** That would be my suggestion sir.

**CHAIRPERSON:** Yes, it gives you an opportunity to wrap up everything and get in some final proposed conditions.

**MR HICKMAN:** I think I'd be of more assistance to – especially given the discussion Your Honour had with my friend Mr Lang, if I've got any condition wording I give you the words rather than the ideas.

**CHAIRPERSON:** Yes, yes thank you for that. I'm sure with Mr Daysh and Mr Chrisp by your side you'll have no difficulty.

**MR HICKMAN:** Well I was actually planning to send them away to do it.

**CHAIRPERSON:** Yes okay.

**MR HICKMAN:** So thank you sir yes –

**CHAIRPERSON:** The sign of a good lawyer.

**MR HICKMAN:** So yes sir it only remains to be seen then what time would you like us to – you've given the -

**CHAIRPERSON:** Shall we make it 10 o'clock tomorrow --

**MR HICKMAN:** 10 o'clock?

**CHAIRPERSON:** -- rather than rushing up early.

**MR HICKMAN:** Thank you. Thank you sir.

**CHAIRPERSON:** You can have everything ready by then?

**MR HICKMAN:** Yes.

**CHAIRPERSON:** And it's not likely to take that long I presume.

**MR HICKMAN:** That would be my objective sir.

**CHAIRPERSON:** Yes. Well I'm - not that I'm telling you to do that, I was just really getting some idea. Yes thank you Mr Robinson?

**MR ROBINSON:** Sir I just wonder whether I may be excused from attending the hearing tomorrow morning. I would like to be here to hear my friend's reply, but I have some other commitments that I may be required to attend.

**CHAIRPERSON:** Certainly. Yes thank you Mr Lang. Thank you for your assistance. So we'll adjourn until 10 o'clock tomorrow morning.

**ADJOURNED** [2.37 pm]