To be read in conjunction with
the tabled evidence/statement

BOARD OF INQUIRY
Proposed National Policy Statement for Freshwater Management

HEARD BEFORE JUDGE D SHEPPARD (CHAIR), MR K PRIME, DR J HARDING AND MRS J VERNON, MEMBERS OF THE BOARD

TUESDAY 21 JULY 2009

HELD AT TE RŪNANGA O NGĀI TAHU CONFERENCE ROOM,
158 HEREFORD STREET, TE WAIPOUNAMU HOUSE, CHRISTCHURCH

HEARING OPENED [10.23am]

APPEARANCES

Mr D Higgins and Mr P Horgan, Ngāi Tahu

Sir K Burke and Dr B Jenkins, Environment Canterbury

Ms C Robb and Ms M Dysart

Dr A Humphrey, Canterbury District Health Board

Ms J Ridgen and Ms E Pearson, Christchurch City Council

(Chair thanks David Higgins on behalf of the Board and invites him to give his presentation for Ngai Tahu)

(David Higgins opens with a Mihi to the Board)

Audio file: dpm0105

[10.40am]

MR HIGGINS: (audio begins)…interest to the definition of notable values. This serves to highlight that Tangata Whenua values and interests are significant and distinct, and not a subset of the more general cultural values currently included in the definition.

Freshwater quality, Te Runganga is extremely concerned about the steady decline in the quality of our freshwater resources, and in many cases the over allocation of freshwater. This can erode or degrade the mauri of the waterway. The mauri of the waterway is degraded if it no longer has the capacity to support traditional uses and values. One of the principal indicators, by which they Ngāi Tahu assess the mauri of the water body is that productivity of the food and other materials mahinga kai sourced from it? Many significant waterways within the kaitahi tapua (ph) are no longer fit for these purposes, in order to bring Kaitahu Whanui together to discuss the issues relating to freshwater and to prepare for this hearing we held a hearing for presenters of the Papatipu Runganga. One of the key issues of discussion was that an appropriate standard for freshwater quality. In seeking to articulate such a standard we confronted a range of potentially competing considerations. Whilst we recognise that the use of the swimmable standard, presumably a contact recreation standard is a pragmatic response to the degraded state of many of our awa (ph). We also sought to identify a standard that would honour the

values and aspirations of our people. Drinking water in every stream and river and an abundance of mahinga kai was in the context of the increasing pressures placed upon our waterways. There was a general consensus among those present at the hui that the current generation must take responsibility for the degradation of our waterways and seek an improved standard for the next generation, ensuring the health and well being of freshwater is a prerequisite, for ensuring the continued health and well being of mahinga kai resources, and ultimately our people. We discussed a mahinga kai or food gathering standard, as no such standard presently exists. The task of developing a mahinga kai standard will be complex as there is a range of mahinga kai species that each have different ecological requirements, life cycles and freshwater habitats. A swimmable standard was felt to be at odds with Kāi Tahu's traditional relationship with freshwater, which revolved around a need for water to be of a standard that was suitable for both drinking and food gathering. Traditionally it was also vital that water was sufficiently pure - to be able to conduct the ancient ceremonies such as water burials, baptisms and blessings. In light of this discussion It was agreed that the drinking water standard is the most appropriate standard. It was recognised that while drinking water standard is not something achievable in the short term, it is an appropriate long term goal. Not only for Kāi Tahu but for New Zealand society as a whole, a swimmable standard is not sufficient.

Kāi Tahu is also concerned that minimum standards often have a tendency to become maximum standards. For example, a minimum flow ends up becoming the maximum flow. In the present case, that would mean that a swimmable standard will be likely to become the best case scenario, with the likely consequence that it will become acceptable for waterways that presently exceed the standard to decline, to a point where they only just meet it. Te Rūnanga urges the Board to a high, and to strive for the achievement of a drinking water standard bearing in mind that this

may not be achievable in all cases. From our point of view, this is the most appropriate target to set, in terms of sustaining the potential of freshwater, to meet the reasonably foreseeable needs of future generations and to sustain the life supporting capacity of freshwater. In addition to this Te Rūnanga also seeks that the provision of the NPS apply equally to existing and future activities. We consider that the existing state of our freshwater environment, been so degraded that in order to bring about an improvement it will be necessary to comprehensively review the manner, in which existing activities are undertaken.

Cumulative Effects: Te Rūnanga considers that the present state of our waterways is attributable to the combination of a series of adverse effects, created by a range of activities over a prolonged period of time. By and large resource consent applications have been assessed on their own merits, with little attention being paid by consent authorities, to the phenomenon, of cumulative effects. The result has been that a series of insignificant effects, have combined to produce a significant and unsustainable impact.

Te Rūnanga seeks that the NPS send a very clear message to councils to be more proactive in the way they go about managing cumulative effects. To this end Te Rūnanga proposes that the following new objective and policy be included in the NPS. The objective is to ensure that sustainable limits to the use and development of freshwater resources, are identified and that on the basis of these, measures are adopted to avoid the accumulation of insignificant effects upon freshwater resources becoming significant. The policy would be that a guide in direct regional and district plans, as to the identification of sustainable limits, of the use and development of freshwater resources including the establishment of freshwater quality standards, and of the environmental flows and levels, and the effect management of cumulative effects will have up on

freshwater resources. Te Rūnanga considers that in giving effect to such an objective in policy, it will become necessary for councils to engage in catchment based planning, and to hear resource consent applications, in a bundled and integrated manner. It will also become necessary for councils to place more emphasis upon assessing the downstream effects of activities. It has been the failure of councils to adequately do this and has lead to the occurrence of eutrophic water quality in our coastal lakes and lagoons, such as Te Waihora, and in the deep water of our lowland streams.

Integrated Management: Te Rūnanga considers that despite its potentially wide ambit, the concept of integrated management has tended to only be thought of in terms of the requirements under sections 102 and 103 of the present Resource Management Act. For Te Rūnanga, integrated management encompasses significantly more than this, including the need for interagency cooperation. Kiuta kitai (ph), a concept of continuity of flow from the mountain's source of a river to the sea, the need to recognise the ever connected nature of natural resources and (inaudible) for us and our children after us. We need to consider the impact of activities upon future generations.

[10.50am]

Te Rūnangafavours a broad and holistic view of integrated management, from which decisions must be approached from a temporal point of view. Te Rūnanga is concerned that Objective 2 of the proposed NPS, will have the effect of further constraining the concept of integrated management. In particular, it seeks to make the coordination and sequencing of land use development with investment and infrastructure for supply, storage, and distribution of freshwater, the focus. While Te Rūnanga acknowledges that this should be an important component of integrated management,

the objective should avoid attributing a precise definition to the concept. Accordingly, Te Rūnanga proposes the following wording for Objective 2: "To ensure effective integrated management, including the effects of land use development and discharges of contaminants upon the quality and available quantity of freshwater by adopting a broad, holistic and integrated approach to all levels of management, and decision making, affecting freshwater resources."

Te Rūnanga also sees this objective be given affect to by including a new policy as follows: "to guide and direct regional and district plans as to how and what ways the integrated management of freshwater resources is to be achieved in the region as required by sections 30 and 31.

Research And Science: Te Rūnanga is concerned that many of the decisions made about freshwater are done so with an incomplete understanding of the nature and function of freshwater ecosystems. In many resource management and research forums, scientific and technical expertise is seen to be superior to traditional knowledge and tikanga and that consequently, there is a lack of research into and understanding of Tangata Whenua values associated with freshwater and the impacts of activities upon those values. We are seeking that a), greater opportunity be provided to Tangata Whenua to undertake research. And b), that Tangata Whenua values associated with freshwater become a priority area of research. We are seeking greater provision for freshwater research to be undertaken by Tangata Whenua for Tangata Whenua. One of the key research priorities for Kaitahu Whanui is the food gathering and mahinga kai water quality gathering standards previously mentioned. In an effort to advance this goal and to highlight the national interest in freshwater research generally, Te Rūnanga proposes that the following new objective be added into the NPS: "It is a national priority to undertake, disseminate and share research of both a qualitative and

quantitative nature, that will contribute to the enhancement of our understanding of freshwater resources and the actual and potential effects, both individual and cumulative of activities upon them." As the definition of freshwater resources presently stands, only the water bodies themselves are referred to. No mention is made of the freshwater ecosystems, and species, or of the values that people and communities hold in relation to freshwater. We believe that it will be important that a broader approach be taken to freshwater related research. Accordingly, as a result of our recent hui, we would also like to propose that the phrase: "Including the species that live within them and the values that they possess" be inserted after the above reference to freshwater resources. Adding this proposed phrase would ensure that the proposed objective encompass research into mahinga kai species and habitats and Tangata Whenua, together with research into the values that the wider community holds in relation to freshwater.

In conclusion, I wish to thank you for the opportunity to speak to you today, and reiterate that we consider the NPS an important document to provide direction on the management of our freshwater. Direction from our hui required that we bring these specific issues to you.

1, the issues of mauri and the tangible indicators of physical health of a river.

2, water quality and our undertaking to seek higher standards than we currently enjoy for the next generation.

3, Mahinga kai as a measure of health, the health of the water and the people through the continuation of traditional practices and expression of cultural identity and the key meanings of passing values onto our tamariki, our mokopuna, ensuring their survival of values through the generations.

4, that cumulative effects and integrated management through holistic catchment based approaches to water management and research by Tangata Whenua for Tangata Whenua.

(Ends presentation in Māori)

CHAIR: Now I am imagining that there may be questions for various speakers on behalf of Te Rūnanga and I am wondering whether you would like me to see if there are questions of you now or whether you would prefer it to hold out questions until you have completed your presentation?

MR HIGGINS: We would be happy to have them.

MR PRIME: Thank you for your presentation. It was very clear and concise and easily understood. I wanted first to go backwards a bit, paragraph 39, I just wondered if you could elaborate a bit more on where you are talking more about the value of the - the food value as a resource or are you talking more about the quality of the water for the food to survive in that water, or if you could elaborate?

MR HIGGINS: Kia ora Kevin. I am going to allow the team to assist with the answer but I would like to just say at this stage that, we are an interesting tribal mix here in the South, and one of the elements that makes us different perhaps to our northern cousins, is the fact that we are hunters and gatherers. We have always live that life. Matariki to us is a different concept to our relations and the fact is that we have spent many generations following the seasonal patterns of hunting and gathering. Although restricted over recent years, at least the last 150 years, those patterns to some extent still exist, and the importance, the huge

importance we have in models of quality of freshwater and salt water to the tribe as a whole, because of those seasonal food gathering practices.

MR HORGAN: Kia ora. One of the difficulties that was identified at the recent hui that we held in relation to freshwater was the definition of freshwater resources only refers to the water of New Zealand's rivers, lakes and wetlands and groundwater systems, it doesn't in fact refer to the habitats and the ecosystems that rely upon that water or to the values that people hold in relation to those waterways.

[11am]

And although we didn't originally raise that in our submission, it was a point that came out of the hui in which the attendance at the hui wished us to bring to you today, and so we seek that the objective that we proposed in relation to freshwater resource just be expanded slightly so as to enable the research into the habitats and ecosystems and the values to become a national priority as well, we feel that it is important that a broad approach be taken to freshwater related research and that Tangata Whenua values become an important facet of that.

MR PRIME: I had questions earlier, but you actually addressed them further in your paper so kia ora to you.

MRS VERNON: I'd like to further discuss Objective 2 which you've mentioned in your original submission, your further submission, and also you've given out in your strike through version so can I thank you for your thorough-ness, and also it makes it easier to have it with the track change, but I will refer to today's notes, because it's easiest rather then shuffle through all the other pieces of paper. And I have got a couple of questions, first of all I note that you talk about integrated catchment

management, and I've been quite consistent with this question throughout so far, would you see that perhaps Objective 2 is more about ensuring integrated catchment management than the current title of just integrated management?

MR HORGAN: I think that's a fair assessment. We (inaudible) that the concepts of integrated management and cumulative effects are very closely connected. And that unless an integrated approach is taken - an integrated catchment based approach is taken, then it's very difficult to measure and assess cumulative effects and so there's a strong connection between those two concepts.

MRS VERNON: Taking that a bit further and looking at your new wording, you talk about a broad, holistic and integrated approach, and it probably won't surprise you if I ask you this question given that I'm from the North Island, but is that better defined as being co-management? And do you have some opinions about the term "co-management" with regard to the National Policy Statement and Objective 2?

MR O'CONNELL: I think first and foremost, our response with regard to the integrated management has been about managing the resource itself. Not necessarily, who's managing the resource but more the principle of how it's managed. The issue you raise, with regard to co-management is a different conversation and from Ngāi Tahu's perspective is a conversation that belongs between us and the Crown, but it does though - I mean, integrated management, when we are working as communities and people have to bring a whole lot of values into our decision making processes, and the processes need to be able to take account of those things. And obviously for Māori, the management needs to take into account the rights and interests and values of Tangata Whenua in doing that. So whether that plays itself out in a co-management model may be the end

conclusion. But what we're focused on here is how the resource is managed, rather than who's managing it.

MRS VERNON: Thank you.

CHAIR: Thank you, that's a very clear and helpful answer.

MRS VERNON: On your new policy, which is on page 9, sorry, a new objective, I just notice as - Objective 2 you've also given a new policy to, but on paragraph 37 you've got a new objective there but you haven't - about research I'm talking about now, you haven't followed through with a policy. So, I just wonder who would be guiding and directing and encouraging this research, because it's all very well to have an objective, but sometimes it's helpful to in a National Policy Statement to guide as to who you think would be engaged in that process.

MR O'CONNELL: It's one of those issues where - you heard earlier, in the submission we talk about broad engagement interagency approaches. Now obviously councils and local governments are undertaking levels of research; our tertiary education system is undertaking levels of research. MoRST and there funding of research within the nation is - has a freshwater stream, so again, coming back to who's doing this, there are a number of players that participate in the water research arena, and I agree that a policy to guide that may be useful and to implement this objective is - the question I guess I have in my mind is how directional this document can be to Ministries or institutions such as MoRST in guiding their water research priorities. So whilst in the hierarchy of the RMA it can help guide, and start to step outside into other agencies.

CHAIR: Thank you. That I think is the questions that we would like to ask at the moment and we would now like you to continue if you wish with further presentation, and it may be that we will have some more questions later.

MR HIGGINS: Kia Ora sir, my submission, was the only submission on behalf or Te Rūnanga. We've completed our submissions for this morning.

CHAIR: Thank you. Maybe then see if there is one or two more questions in the light of that information and can we say so far that the questioning process has been beneficial to us and I hope to you.

MR HIGGINS: Thank you.

DR HARDING: I do have some questions. So just going back to your initial submission on - go down to 4.2, which is referring to the use of RMA terminology and going down to the sixth bullet point, which is talking about Objective 5 and the policies, associated Policy 1 and 5. In the document, in the proposed policy statement at the moment it talks about things like "control and minimise" and you've referred to the fact that in the RMA it's about "avoid, remedy and mitigate." I wonder if part of what's trying to be done here is to actually raise the bar somewhat and to actually, not so much mitigate, but moving more towards this control and minimise. Do you have any feelings about that?

[11.10am]

MR HORGAN: I think that that is a possibility, that there is some subtle differences between minimise and mitigate, but I think that we need to be careful that we don't introduce semantic debates around the nuances and the different shades of meaning between similarly-related terms. So I think our preference was that the NPS seek to avoid that confusion by

sticking with the tried and tested terminology of the RMA, rather than diverting from that and bringing in untested concepts that could end up having to go through the Court process to be clearly defined. I just think that the benefits of raising that bar slightly are probably outweighed by the potential confusion that would be created by going down that road.

DR HARDING: Again, looking at your original submission, I guess part of what you've said today is coming up with new definitions or a new definition of freshwater resources. One of our previous submitters suggested changing the name 'resources' to 'ecosystems', which might encompass species and those sort of components of habitat. And you've come up with a new potential definition in your submissions 14 or 38, you've also talked about adding estuaries and lagoons. What do you think about the idea of 'ecosystems' as opposed to 'resources' or some other sort of way of encompassing these other aspects?

MR O'CONNELL: I think we would support that approach. We think 'resources' is quite a (inaudible)-centric concept, it doesn't embrace the intrinsic values or the cultural values for that matter, so we would be supportive of the use of the term 'freshwater ecosystems'.

MR HORGAN: If I could just add a proviso though. Often ecosystems get viewed as something we look at and not something we're part of. So as long as the way in which we apply ecosystems, that the human interaction is part of that ecosystem, that it is not something that sits separate and observes it. So again that comes back to holistic and integration.

CHAIR: Yes, one of the points that was suggested about changing the use of the word 'resources' was because 'resources' seems to be often used in a context of exploiting them, and that of course is not what you're talking about, is it?

DR HARDING: I think also on 9.11. So the issue of artificial water courses is an interesting one - actually maybe I need to check what the definition is under the RMA, but what would things like drains and those sort of things would come under (inaudible)?

MR O'CONNELL: From a Ngāi Tahu perspective, it's always been they are waterways, and I think we took some proceedings, a declaration, before the Environment Court a number of years ago on the (inaudible) main drain, which was being managed I guess from the perspective of being an artificial water body and so that a lot of the definitions of the Resource Management Act didn't apply to it. But it was a course for the channelling of what was a natural wetland system and was brought into being a drainage system, so from a tribal perspective what had become artificial watercourses were in fact originally natural. They've just been managed into a new form, but still have and still hold values for Tangata Whenua, still support mahinga kai species and animals, and still hold reasons for our people to engage with them. So they shouldn't become - by being termed artificial, they shouldn't be treated in a separate or different way, or we can treat them worse or better. From our perspective they are all waterways.

MR HORGAN: If I could just add to that too, I think it is important to bear in mind that artificial watercourses, or the water within artificial watercourses, is not contained within a vacuum, and that sooner or later along the system that water is going to enter a natural waterway. So it's very important that the quality of that water be managed so as to ensure that discharges of contaminants don't occur at the point where the artificial watercourse enters the natural waterway.

DR HARDING: Thank you very much, and thank you very much for your very thorough submission.

CHAIR: And you have added to your submission, your own document - your own freshwater policy document. How have you been finding that that has been used by the RMA decision makers?

MR O'CONNELL: We have alongside the Freshwater Policy of Te Runanga and we have a number of Iwi management plans. It would be fair to say our Regional and District Councils still struggle with what it means to take into account the Iwi policies when making their decisions on their planning documents. In some cases, it's a very, very, very long process. Look at Canterbury for example, and the development of the Natural Resources Regional Plan. To keep up with that type of process and at every point in time engage with how does that relate to our tribal plan, we find ourselves generally in the place where we're there as submitters and having to constantly bring the policies of our tribal policy. There's not a lot of proactive consideration and take-up in the councils system itself or its own decision making, on how it considers the Iwi plan. So we still find, from our perspective, from the Ngāi Tahu perspective, very helpful documents in guiding our own tribal view of the world. But working with our councils to understand how they can more proactively engage with it is still very much a work in progress and something we continue to hold in the forefronts of their minds.

CHAIR: So when you say 'struggle', you're almost having me understanding that the struggle is on your part rather than on their part?

MR O'CONNELL: Yes. Where we have seen a good consideration though, is where we do have a Tangata Whenua person present within the decision making processes of setting policy, because they can actually understand,

interpret and apply what the policy means and assist those around them to take those things into account. Where a decision making body doesn't have that skill or opportunity, we find that they often struggle with doing that.

[11.20am]

CHAIR: And that's where you, to the extent that you can, seek to bring it to their attention, especially in instruments like the NPS. Thank you very much for that explanation. No doubt this is a living document that every now and then it's reviewed, is it?

MR O'CONNELL: Our freshwater policy is now 10 years old and is due for renewal, and part of our work in preparing for the NPS will make a considerable contribution to what our next generation of our tribal plan will look like.

CHAIR: Well thank you all very much, that's been most informative for every member of the Board. As you know, we have to consider a lot of submissions from all around the country and from various kinds of organisations. Some conflicts are already apparent in what people would like to see by way of improvements to the National Policy Statement, and so we can't give you to expect that a report would be completed in the next few weeks, it'll take us a little time, and it deserves it. So thank you very much for all your material and trouble in presenting to us, both today and in your submission.

MR O'CONNELL: Kia ora sir. On behalf of our submitters, and our (inaudible) from Te Rūnanga o Ngāi Tahu, it's a pleasure to see you again. Last time I submitted before you on behalf of our people was on the Waitaki, and it's good to see you in good health. Dr Harding, Mrs Vernon, kia ora kōrua.

To the Taniwha from the Far North, kia ora Kevin. Keep up the good work and we wish you well in your deliberations. Kia ora tatou.

ADJOURNED [11.25am]

RESUMED [1.28pm]

Audio file: dpm0106

CHAIR: Well good afternoon Sir Kerry. It's good of you to come and we're looking forward to having the presentation. We have all had the opportunity to look at the Council's submission and so we've already got some feeling for the content that you'll be addressing and we'd like to hear from you about that. May I first introduce the members of the Board. On my right is Mrs Jenny Vernon-from Winaro (ph) of the Waikato. On Mrs Vernon's right, is Kevin Prime of Ngati Hine, he comes from the far North and on my left is Dr Harding from the University of Canterbury and I'm the Chairperson.

SIR BURKE: Mr Chairman, Board members, thank you for the opportunity it's a privilege to be able to present our submission in a summary way, for me to introduce the submission and Dr Jenkins to speak in more detail. So, we thank you for that opportunity we have today.

By way of introduction sir, I want to advise that more than 70% of the irrigated land in New Zealand lies within the Canterbury region. Almost 60%, 58% to be precise, of all of the water allocated for consumptive use in New Zealand is also allocated within the Canterbury region which has the highest end allocation of water naturally in the country.

We're therefore at the forefront and grappling with issues with regard to water quality, quantity allocation and use, and as such we formally record a welcome of the initiative to develop the Proposed National Policy Statement for Freshwater Management.

We support the Proposed National Policy Statement recognising that there are a number of important policy issues that are more appropriately addressed at a national level. It's considered however, that the proposed statement as drafted needs yet to be significantly amended in order to provide some of the key policy tools and guidance needed by local authorities in managing the diversity of the freshwater issues. And as I indicated earlier, Dr Jenkins who's the chief executive of Environment Canterbury will outline what our council considers to be the key changes in our presentation.

In terms of our region which we administer, we have the responsibility under the Resource Management Act for the largest land area of any region in New Zealand covering about 4.22 million hectares. Between 1999 and 2006, Environment Canterbury processed on average 2,498 resource consents per annum. This is 28% of New Zealand's regional consents over that period. The next closest Regional Council was Auckland at 11% and I think, in reference to one of your colleagues sir, the Waikato I think was about 9 or 10% of the total. So, by any standard set of measurements we play a significant role in the management of New Zealand's natural physical resources.

Within our region we have 10 territorial authorities, Kaikoura, Hurunui, Wanaka, Selwyn, Ashburton, Timaru, McKenzie, Waimati, part of Waitaki as per catchment and Christchurch City. And these territorial authorities also play an important role in the management of the region's environmental, economic, social and cultural assets. While we support the general intention of the Proposed National Policy Statement and a number of the proposed provisions, the Council considers that as drafted the proposed statement may miss an important opportunity to resolve some significant issues that local government faces when attempting to manage freshwater resources in a sustainable and responsible way.

To this extent Environment Canterbury seeks a number of changes to the Proposed National Policy Statement which Dr Jenkins will talk to now. Before calling on him may I introduce to you also Marie Dysart and Christine Robb who are officers, legal and water portfolio respectively, of the Regional Council. Dr Jenkins.

CHAIR: Good afternoon Dr Jenkins.

DR JENKINS: Thank you. I would certainly want to express my thanks to the Board for the opportunity to present our submissions to you. Reinforcing my Chairman's comment, firstly the policy statement has a positive step forward for water management. We are hoping you would have seen in our submission to you a number of recommendations to actually give us greater assistance in our role which we think can be achieved through National Policy Statement.

I do have a presentation which will just highlight some of the key issues (inaudible) submissions which would be appropriate at this stage because of the time constraints. And I'm certainly happy to take questions on any of the material through the presentation if that is the Board's desire.

One of our key themes is the need for an integrated approach to water management. Freshwater systems are extremely complex and Environment Canterbury considers that there are two aspects of an integrated approach that need to be more fully reflected in the Proposed National Policy Statement.

The first is the interconnected nature of freshwater resource itself. And the second is the need for an integrated management approach by Regional and District Councils including utilisation of the resource itself

and the land use effects and other developmental issues within catchments.

With the regard to the interconnected nature of freshwater resources Environment Canterbury submits that the National Policy Statement as currently drafted contains an explicit focus on the surface water aspects of freshwater resources. If you take the example of Objective 3, Policy 4(h), in the definition of notable values, all of those reflect to the notion standard of swimmability which is clearly not a concept that is relevant to groundwater resources.

The Proposed National Policy Statement does not expressly acknowledge the interconnected nature of freshwater systems. The relationship between surface water and groundwater is not expressly recognised. Now I think this maybe a particular Canterbury issue that we do have with our Canterbury Plains (inaudible). A much closer interconnection between surface water and groundwater than exists in many of the other regions.

With regard to the management of resource by local government, the Proposed National Policy Statement provides some guidance with respect to the integrated management of effects. But, it firstly does not offer local authorities anymore guidance than that provided by the RMA.

Secondly, it refers to integrated management of effects of land uses and discharges of containments. Whereas the RMA refers to both integrated management of resources and integrated management of the effects of land use. So, we think the National Policy Statement is clearly narrowing that focus.

And thirdly, it does not contain a clear direction to Council and decision makers to adopt a broad, holistic and integrated approach to all levels of

decision making. Which recognises the intrinsic behaviour and interconnected nature of the freshwater resources including complex relationships that exists in the context of freshwater management.

[1.38pm]

In terms of the relief that we are seeking, we would certainly recommend the members to provide the expressed recognition of the complex and interconnected nature of the freshwater resources. And to provide a clear requirement to adopt an integrated management approach to all levels of decision making. And our formal submission has a more detailed expression but that's really the key points that are in the relief that we are seeking.

If we move on to the second general theme that we would like to emphasis to the Board, that is the issue of cumulative effects. A key issue of water takes and discharges is the potential for cumulative effects on water availability and quality to arise. Particularly where a series of water takes or discharges, and particularly non-point discharges, are considered in isolation from activities with similar effects on freshwater resources. For example, the impact of groundwater controls in the Canterbury Plains (inaudible) has an impact on flows the spoon-fed (inaudible) streams. There's a direct connection there between groundwater and surface water.

The Proposed National Policy Statement does provide any particular direction in relation to managing cumulative effects. Although it's acknowledged that the setting of water quality standards and flows will assist in establishing environmental limits, hat's an approach that's already been adopted by Environment Canterbury in its Proposed Natural Resource Regional Plan.

The Proposed National Policy Statement does not provide clear direction to Regional Councils to avoid cumulative effects on water quality or state that local authorities should refuse resource consent applications where the potential cumulative adverse effects are likely to occur. The inclusion of policy in the Proposed National Policy Statement on cumulative effects would support and reinforce Regional Councils efforts to address cumulative effects on freshwater resources.

If you look at what we recommend in the forms of relief, Environment Canterbury recommends that the Proposed National Policy Statement be amended to include a policy (inaudible) that draws attention to the need to avoid the occurrence of cumulative effects on freshwater resources. And secondly, Environment Canterbury notes the difficulties in identifying and measuring cumulative effects and recommends that Central Government provides tools or guidance notes to guide and assist local councils in addressing the issue.

I'd now like to move to the third general theme. And that's the one managing scientific uncertainty and particular the uncertainty of available key information in making water resource decisions. Managing freshwater resources is often done in the context of a limited scientific certainty or incomplete information regarding both the nature of the freshwater resource itself and the effects of utilisation of that resource. This means that decision makers face difficulties when setting the environmental flows into water quality standards and when considering resource consent of applications for water takes or discharges particularly when there appears to be a range in scientific opinion presented to decision makers.

In some situations it appears that the onus is being put onto the council to demonstrate a profit. Rather than the applicant to demonstrate that their proposal will have a limited effect, which is our interpretation of what the

RMA requires. The Proposed National Policy Statement provides no specific direction or values in relation to how decisions can be made in the face of uncertainty.

The Proposed National Policy Statement is also silent on the burden of proof in terms of who is responsible for the provision of this information to facilitate decision making, although the Act is clear in this regard. Environment Canterbury believes that the Proposed National Policy Statement should provide decision makers with explicit guidance as to how decisions may be taken in the context of limited information or where scientific uncertainty exists.

If you look at the relief that is being sort, we recommend that the Proposed National Policy Statement provides guidance to local authorities when making decisions in the face of uncertainty. And we certainly think one of the clear ones of doing this is by having it proportionally approached. And also incorporating effective management when you've actually got things in operation. So, precautionary on the side of making the decisions, and adaptive in terms of the implementation of those decisions.

I'd now to like to move onto the more specific issues of the water allocation and the issue of managing over-allocation of water. Environment Canterbury considers that over-allocation is the key issue that needs attention. In spite of the Environment Canterbury's efforts to manage freshwater resources in the region using a cautionary approach the unanticipated complexity and the interconnected nature of the freshwater resources coupled with limitations in scientific information. We believe this has led to over-allocation in some catchments. Environment Canterbury considers that the Proposed National Policy Statement should provide direction and mandate for local authorities to

reduce their districts existing water takes, particularly in (inaudible), to address over-allocation.

Any policy should be broad enough to enable a range of regional and catchment approaches to address allocation that can take into account seasonal and climatic variability and innovative solutions to those issues. If the Proposed National Policy Statement does provide a mandate this will support existing RMA provisions (inaudible) and consent conditions to enable levels of those (inaudible) standards set by the Regional Council.

A significant issue in addressing over-allocation is that the (inaudible) over-allocation. By that we mean, where the user has the right to take more water than is actually used. In the event that transferability of water takes (inaudible) existing (inaudible) rights to an unused water take will have an economic value. This has the potential to create significant difference in respect of Regional Councils ability to address adverse environmental effects which will increase in volume without an increase in (inaudible).

The Proposed National Policy Statement provides some guidance in terms of managing demands for freshwater. It also provides general guidance in relation to the efficient use of freshwater. However, the Proposed National Policy Statement does not firstly establish an overall objective to avoid over-allocation of freshwater resources which would provide as a common mandate for Councils to use their powers to make rules that effect existing resource consents by limiting provisions. And secondly, provide policy direction to Regional Councils to address over-allocation of freshwater resources either by Section 128 reviews or otherwise.

If you look at the issues that we're seeking relief, in terms of managing over-allocation of water, we recommend that the Proposed National Policy

Statement provide an overall objective to avoid over-allocation. Policy direction to address over-allocation of freshwater resources including reference to the Section 128 reviews. And we draw your attention to the need for tools and mechanisms for Councils to more responsibly address over-allocation (inaudible) local authority.

Now, we recognise that that may not be possible through the National Policy Statement, there may be other venues where that can be dealt with in terms of RMA changes. I understand of course that's (inaudible).

CHAIR: Yes, we've got enough.

DR JENKINS: I'd now like to move on to the issue of infrastructure development. The Proposed National Policy Statement addresses water efficiency and it addresses infrastructure coordination. But it does not address the planning and coordination of infrastructure for the purposes of enhancing efficiency of water use or acknowledge the role of infrastructure planning has to play in enhancing water efficiency. The Proposed National Policy Statement could acknowledge investment infrastructure in considering the priorities of allocation.

In addition, planning for infrastructure must also consider the availability of water and the reliability of availability. In responding to those issues decision makers need to consider water storage and distribution. As well as the individual property level decision regarding use of the resource such as the irrigation systems that are being used.

[1.48pm]

If you look at the relief that we are seeking in relation to the National Policy Statement, Environment Canterbury considers that the Proposed National Policy Statement should be amended to include policy requiring the local authorities to consider infrastructure planning development in the context of freshwater management.

I'd now like to move to the issue of water quality and the general theme of the identification of key values. One of the key objectives of the Proposed National Policy Statement is to improve the quality of freshwater which is clearly a matter of national significance. The identification of nationally important values in relation to freshwater resources may be a useful tool to guide local authorities in their decision making in order to prevent further degradation of, and indeed improve, the quality of freshwater resources.

In issues that arise in this context and which need to be considered in identifying key national values are identified in more detail in our submission. While the Proposed National Policy Statement contains a process for identifying notable values of expanding and degrading water bodies, it does not provide a clear national direction as to what national values are sought nor the expected outcomes of the National Policy Statement. The broadly defined notion of notable values which because National Policy Statement requires Regional Councils to individually interpret and identify, and that is all the understanding degree of freshwater (inaudible), does not provide Councils with sufficient guidance.

The Proposed National Policy Statement does not, firstly, provide any firm timeframes for achieving swimmability or protection of life supporting capacity and ecological value. Secondly, it does not provide a definition of swimmability or recognise the importance of other values in the context of water qualities. The use of the term 'swimmability' (inaudible), its meaning

is unclear. Thirdly, the Proposed National Policy Statement does not provide any guidance in relation to measuring the degradation for improving the water quality. For example, establishing water quality based on benchmarks. And fourthly, the Proposed National Policy Statement does not provide clear guidance as to how local authorities are to treat outstanding freshwater resources and degraded freshwater resources. The only guidance (inaudible) pertained to are definitions of those terms.

Also, it doesn't acknowledge that water bodies may have a range of values in addition to ecological values and that sustainable management of those resources requires a broader approach to improve water quality at a rate that meets the needs of the community. Further, the National Policy Statement does not acknowledge that some water bodies can be naturally degraded and they therefore will not be able to achieve the national bottom lines. And finally, the policy statement contains no linkages to Section 69 of the RMA, the rules relating to water quality in schedule 3 of the RMA which identifies water quality classes and sets standards into class.

If you look at the relief that Environment Canterbury is seeking in terms of the National Policy Statement, we believe the National Policy Statement should identify the national values for freshwater resources in the National Policy Statement. Secondly, require Regional Councils to define those national values in the regional context when identifying outstanding, at risk and degrading freshwater resources. Thirdly, provide for the ability to recognise the importance of regional value resources. And finally, stipulate that Regional Councils are required to undertake this all in the timeframe set by the Regional Councils to amend as Policy 1(a) to include this requirement.

I'd now like to move onto the concept of managing at-risk catchments. This we distinguish from the degraded and outstanding. It is difficult for local authorities to respond quickly to problems that arise in relation to water quality and accountability. Particularly where the environment catchment is changing the rate that the local government's current tools are not equipped to address. This is particularly the case in catchment that become degraded if the Regional Council does not act within a short timeframe, (inaudible) at-risk catchments.

Proposed National Policy Statement implies that priority should be given to the enhancement of a restoration, degraded freshwater resources but not those that are at risk of becoming degraded. In that sense, the Proposed National Policy Statement provides for management of freshwater resources at either end of the spectrum, that's either being outstanding or degraded. But not for resources that fall outside those definitions. The Proposed National Policy Statement lacks any direction or guidance as to how to identify many at-risk catchments or a definition of an at-risk catchment. The Proposed National Policy Statement does not firstly identify the management of at-risk catchments as a priority.

Secondly, it doesn't persist in identifying at-risk catchments except to the extent of notable values of degraded freshwater resources are to be identified including specification of criteria for determining at-risk catchments. And thirdly, provide any guidance or provide a strong mandate to the local authorities as to how they might respond quickly to address issues that arise in at-risk catchments.

Look at the relief that we are seeking, we would like to see amendments that identify the management of at-risk catchments as a priority. Secondly, to specify the criteria for (inaudible) and we have some suggestions for those in more detail in the submission. Include the criteria

in Regional Policy Statements without further formality, so we don't have to go through district processes. And finally, to include a policy that gives Regional Councils tools when they expose at-risk catchments, have that being identified. (Inaudible) indicated how that would be achieved approaches the national environmental standards mechanisms.

I'd also like to draw the Board's attention to the further submissions that we've made and that supported some of the city aspects of other submitters.

CHAIR: Would you mind pausing for a moment Dr Jenkins and I'll put that in front of me because I'd like to follow what you're saying. Thank you very much.

DR JENKINS: And you'll see the list that we've put up there of the ones that we've submitted on. The first is in relation to Solid Energy and the particular aspects. The submission on Objective 4, which seeks that the provision be amended by inserting the effects. So, we're looking at, to ensure the life supporting capacity of ecological values that freshwater resources are recognised and protected from the effects inappropriate, A, B, and C.

If you look at the issues in relation to Wellington City Council there's a number of submissions that are suggesting changes to Objective 5. We are suggesting to you that we would prefer it be unchanged. Wellington City Council has similar submissions.

Next, in relation to New Zealand Freshwater Sciences Society. Their submission on Objectives 6, that a clause be added 6(d) to give effect to the need to reduce the demand for freshwater. And that is going beyond

what is in the current National Policy Statement. And we see that as being particularly well (inaudible) over-allocation of freshwater.

If you look at the Rotorua District Council and their submission on Objective 7, seeks the word 'excessive' is deleted from the Objective 7(b) or that term be defined. We would certainly support the view that 'excessive' be deleted or that the term be better defined. We think it (inaudible) the intent of the objective to the word 'excessive' in there.

In relation to Christchurch City Council, and they are seeking on Objective 7(c), they want the amended clause to read, "Increasing the economic, social, cultural and environmental benefits for the use of freshwater." We believe that is a better specification than what is in the current National Policy Statement and we would support that view.

[1.58pm]

Second, in relation to the Christchurch City Council submission. They have suggested an amendment to Policy 7, and they wish it to read, "In addition to giving effect to Policies 1 to 3, Policy 6 to RMA matters, Regional Councils and territorial authorities may give effect to this National Policy Statement through other regulatory and non-regulatory methods, including financial contributions, development contributions under the Local Government Act and other methods." We would certainly support that, and reinforce the issue of collaborative partnerships in rephrasing that particular statement. So in addition to their request, we would have not only including financial contributions, development contributions under the Local Government Act, collaborative partnerships and other methods. We've certainly found methods of collaborative governments have been very useful in achieving outcomes. It cannot necessarily be achieved by (inaudible).

Now, also in terms of (inaudible) Runanga o Ngai Tahu. They are concerned about the use of the phrase 'Iwi' and 'hapu'. We would prefer to use 'Tangata Whenua'. Certainly in the Canterbury region there is much greater reference to Runanga than there is to Iwi or hapu. We believe that the sustainment between the regional (inaudible) moving to Iwi and hapu may actually cause (inaudible) implications (inaudible). And finally, in relation to the Simon Berry Environmental Law submission, we certainly see that some people have suggested that Policy 9 be changed in terms of timing. Our preference is for that policy to be unchanged, consistent with the (inaudible).

I think that covers, Mr Chairman, the key summary points but we are certainly happy to give any more detail that you may wish to address as well.

CHAIR: Thank you, I think there will be some questions, so that we can understand completely the constructive suggestions that you've been making, and so I will call on my colleagues if I may. Mrs Vernon?

MRS VERNON: Thank you. Going to your original submission on page 5, where you suggest adding an extra policy regarding cumulative effects. I wonder which objective do you see that new policy or your addition relating to? Or do you see that perhaps it might even need its own objective?

DR JENKINS: We think it's of special significance that it probably does warrant a separate objective. It's one of the major shortcomings that we're finding in dealing in some of our issues in the Canterbury region, where the Act is still vague in terms of cumulative effects. It's really only in the definition. Having some clarification in policy I think would be of great assistance to

us in delivering on our responsibilities, and it's certainly one of our major concerns, dealing with the sustainable (inaudible) that we're facing.

MRS VERNON: I note that you, in your further submission, support the fact that Objective 5 remain. We've also had a suggestion that not only Objective 5 get deleted but also Objective 3 get deleted and I wonder if you would care to comment about - it's not in any of your previous submissions but it is in a submission, I'm just seeking your opinion I guess of what you think of Objective 3 being deleted as well as Objective 5. I know your opinion on 5, but it has been suggested that Objective 3 be deleted as well. It's one about improving the quality of freshwater.

DR JENKINS: Excuse me, I'll just get my copy of that. We would certainly see the need for progressive enhancement of water quality. We have a number of areas where we see our water quality over limits that we would consider appropriate. In particular, nitrate levels in groundwater and also in terms of some of the recreational quality. We could certainly see that progressive enhancement would be highly desirable.

MRS VERNON: Thank you. One final question, there's been quite a lot of comment, not necessarily because we've just started today in Christchurch, but from other submitters in other parts about this term 'land use development'. And I just would value if any of you have an opinion about - the contentious word is - should it be 'land use development' which is currently stated, or is it 'land use effects' or is it 'land use activity'?

DR JENKINS: We certainly recommended a more detailed definition of 'land use development' in our submission. One of our major concerns is that it needs to take into account existing land use effects. Some of the work we were undertaking with the Canterbury water management strategy,

demonstrates that with some of our modelling work with the current levels of development, it needs to be changed if we are going to achieve the water quality standards which is consistent with Objective 3. So we would certainly recommend having, not just land use intensification, land use change, but also the existing utilisation of land and activities.

DR HARDING: Thank you very much for your submission. One of the points obviously that you've highlight here is the whole issue of groundwater in the Canterbury region and your role as submitter who's obviously - that's a major issue. Now, I guess I'm impacts, a precautionary approach and long time periods in groundwater interactions. I'm not quite sure how the policy statement could bring all of those together, particularly to do with your sort of situation here in Canterbury. I mean, you could get yourself - I don't know if I've got a question, but you could get yourself into a situation where you oppose all water grants because you're not sure about what cumulative long term impacts would be in a groundwater scenario.

DR JENKINS: That's one of the reasons why we are looking at a precautionary plus adaptive approach. The best way to respond would be to indicate how we are approaching the Rakaia Selwyn groundwater (inaudible) which is one of the more pretentious areas in Canterbury. When we introduced the concept of sustainable limits for extraction, we started to recommend to decline their consents, and the first test of that was in the Linton Dairies decision. What the key judgment came there was that when you had one additional take in a large zone, it was very hard to demonstrate with what the Court referred to as probity evidence that there would be an issue of contribution to cumulative effects. Defining which is the last straw that breaks the camel's back, I think, is one of the key challenges as we move into the management of cumulative effects.

When the RMA was designed, it didn't deal with that issue. If you look at what happens in both the Coastal Policy Statement and also the fisheries legislation, they have accepted that where there is some of those uncertainties that the precautionary approach can be applied. That would be of great assistance to us in dealing with our circumstance, because the precautionary principle is not enshrined in the Act, so that there is no national direction for Courts to take on board the precautionary principle to support the environmental plan approach that we have been taking.

The second issue, and I come to your point, would you decline everything. What we have been looking at in terms of how we manage the resource, knowing that there is incredible uncertainty in climate area built into the Canterbury region. And if you look at things at least in a 10 year cycle, and if you look at what's happening with climate change, the projections for climate change on the East Coast of New Zealand are terribly important to long term sustainability of current water use, when they're predicting reduced winter rainfall and therefore less recharge, it's the dominant time to recharge. Looking at increasing summer temperatures which means you get greater transpiration, and they're predicting that there will be greater rainfall along the Southern Alps and less snow, which means you will have winter runoff rather than snowmelt and summer runoff, so you get a mismatch between demand and supply. So all three areas are saying that life is going to get more complicated for us.

[2.08pm]

What we've been looking at is how do we introduce the concept of saying here is your allocation, but introduce a seasonal adjustment depending on what is happening with either climate variability or climate change. And there is a major program of discussion going on with the Rakaia Selwyn consent holders at the moment, but how do we incorporate that concept

so that they can manage the resources of Environment Canterbury in a way that is (inaudible). So the concept that we're looking at is having a seasonal adjustment, "You may have this amount of water on your consent. But if there's clearly been a history of past years of low winter recharge, that you may only have 80% or 90% of what you can allocate." That's a clear mechanism which you introduce as an adaptive management approach to deal with the scientific uncertainty. Hence our recommendation to you is to enable the precautionary approaches but also adaptive management to deal with scientific uncertainty.

DR HARDING: Thank you. One question I did have, you made reference in your original submission to naturally degraded systems. I was trying to think of examples of naturally degraded systems?

DR JENKINS: Can you just refer to where it is so I can these in (inaudible) context?

DR HARDING: Sure. Page 18 at the bottom, paragraph 13 acknowledges that some of the water bodies may be naturally degraded.

DR JENKINS: One of the issues that comes with quality, if you look at what happens with the Canterbury system, there is quite often a high level of suspended sediment often (inaudible) cloud that means that we are getting low levels of light penetration, high levels of suspended sediments. But that's clearly occurring on a national basis. That would be one example.

DR HARDING: I think on page 20 in your original submission where you make mention of some specific criteria for determining the risk of (inaudible), I think you said that you presented that somewhere?

DR JENKINS: Sorry, at the bottom of page 20 where I've included there in the items listed 1 to 10 as being potential criteria that could be used.

DR HARDING: I see, thank you, great. Some other submitters have referred to, under the definition of freshwater resources, ephemeral streams and artificial waterways and that sort of thing. What's Environment Canterbury's view upon those types of water bodies?

DR JENKINS: We certainly support their inclusion. If you take artificial water bodies, there is an interesting phenomenon that's occurred with some of our native fish such as the Canterbury mudfish. Because of the introduction of trout and salmon, you don't actually find, even in some of our major waterways, high levels of native fish. They've actually retreated to some of the stock water races, because that's where trout and salmon don't occur. So we've actually got some of our best mudfish habitat in what are effectively artificial channels. And if you look at the ephemeral streams issue, there are a lot of rivers in Canterbury that naturally run dry, that's just their natural cycle. You're probably familiar with the Selwyn which may be having flow in the upstream section then it's without a flow in the mid breach, and it will have a flow downstream. It's just the nature of the interaction between the surface water and groundwater, with the Canterbury climates. So ephemeral streams are one of the key areas that we're concerned about in terms of the management of water resources, because it's such a predominant characteristic of our lowland streams and our (inaudible)

SIR BURKE: In Canterbury there are hundreds and hundreds of kilometres of artificial water ways, which appear to drain in land. In the upper Rangiora County, for example 800 kilometres alone, just there, one of which the (inaudible) drain is now I think legally classified as a river, (inaudible) or thereabouts, so it's effectively a drain, but legally has become a river.

DR HARDING: Thank you very much.

CHAIR: You were giving an instance of a particular case as the foundation, as it were, for a request that something be done about the burden of proof on resource consent applications. Although you're acknowledging that the Act itself is clear enough about that, and obviously Environment Canterbury fully understands that, so I'm wondering whether one case provides a justification for putting something in to a National Policy Statement, indeed whether a National Policy Statement is the right place at all for something about burden of proof, when you and I both know what it is, and it's in the Act and in the law.

DR JENKINS: Well, we would certainly find it helpful, I mentioned the (inaudible) case, we're also getting a similar response to some of our hearing commissioners, who have had multiple consents being considered in both the Rakaia Selwyn zone and the Selwyn Waimakariri groundwater zone. And they've basically said that look, there's uncertainty in this area, and they've shifted the argument to the extent of where should the risk be accepted? Our view is that if you're taking a precautionary approach the risk should not be with the environment, that's not enshrined in the legislation, and there have been recommendations to grant consents, because we can't prove, so this is the burden of proof argument, that's an intended view that was put up. And they say we'll grant the consents knowing that the applicants will then have to take the risk of whether the resource is there, or not. So we're see the granting of more consents in circumstances that we can see that, if you were a prudent risk manager with an environmental perspective, you wouldn't grant those consents. And that relates to what you can and can't prove. If they're effectively saying there is uncertainty, but we're happy for the applicants to bear that

uncertainty in (inaudible) consents, (inaudible) the risk to the environment at a greater level.

CHAIR: And would your policy against over allocation address that? A specific, explicit policy which you are arguing for?

DR JENKINS: That's the context in which we see the greatest developments, both in terms of the allocation of the resource, and in terms of the management of cumulative effects. They're the two issues that we believe that the current provisions don't give us sufficient support to act as a prudent resource manager.

CHAIR: Yes, well, being concerned myself, that the Board's report to the Minister doesn't go outside the proper limits of what the Board has to do, I'm wondering whether the explicit policy against over allocation and the explicit policy about cumulative effects, won't serve your needs, without running the risk of somebody saying well take no notice of that, because they've gone outside (inaudible), "they" meaning this Board.

[2.18pm]

DR JENKINS: Yes, the boundaries and where you can take a policy I think are clearly an issue that you have to address. But there's already precedent in the Coastal Policy for introducing the precautionary approach as a Policy Instrument, even though it's not in the RMA. And I think there's a clear reflection that they certainly see the precautionary approach to managing cumulative effects, and I think there's similar things in fisheries policy. You'll probably find there's enough precedent in other Instruments, in New Zealand policies that will provide you with some support in your case that you would have to make to the Minister.

CHAIR: Without needing to actually talk about burden of proof as a legal concept?

DR JENKINS: Yes

CHAIR: All right, thank you. Now, in your piece about infrastructure development, and this is an example, rather than the only place I think. In the amendments that you're proposing, or suggesting to this, Item J(1) says: "guide and direct regional and district plans to support integrated management" and so on. So if we come to Policy 1, and we're looking at J, and it says "guide and direct" and bearing in mind that the Board isn't defensive about the proposed statement, we had nothing to do with its preparation, we're just looking to see if it can be approved, how would it work in practise if J was amended in the way that you're proposing here? If the National Policy Statement said: "a policy for achieving this objective is guide and direct regional and district plans"?

DR JENKINS: If you take some of the work that's been undertaken at the moment as part of the Canterbury Water Management strategy, we were looking at how do we get the best use out of a constrained resource? What we're finding, and I'll give the example of the mid-Canterbury area, where there is clearly an incentive to provide for further water, there is more land that is capable of being irrigated, and we've poorly allocated our groundwater systems, and also there is high (inaudible) liability with the surface water systems. We've been looking at the issue of storage and how that could be providing additional water to the system. What we've found is that if you look for an integrated water management approach, where you not only look at the provision of storage, you look at what's happening with existing allocation of resources; where the water is allocated within the system of the Plains, and also the efficiency of the irrigation infrastructure and the distribution infrastructure, we can actually

halve the volume of water storage that's needed by looking at integrating water management. If we were able to have groundwater being used - sorry, surface water being used in the upper part of the Plains, ground water in the lower part of the Plains, we'd get some enhanced recharge, and also reduce the energy demand. If we have pipe systems, rather than canal systems, we can increase water use efficiency, but also use the energy head to drive irrigation systems. If we can move away from high application rate systems, to low application rate systems, we can significantly reduce the demand for water. And with halving storage and that integrated approach to infrastructure, we think we can get a better outcome. Having policy support for that, and taking into account by both - that it's not just our decision, it's the district council's decisions as well, we see that as being very valuable in getting integrated water management, rather than where the RMA is really designed at the (inaudible) approaches to water resource development. We would have some greater support for integrated water management which we see as having greater advantages overall in usage from source.

CHAIR: Thank you very much.

MRS VERNON: Is that what you would see as being an adaptive management approach, because you used that term before?

DR JENKINS: It's more than adaptive management, it's actually looking at an integrated water management, for a water management design. We're going down the process of defining zones, where we integrate both the take and the use, and saying "how do we get the best allocation of that resource? How do we manage it in a way that avoids the cumulative effects?" And if that means looking at the infrastructure, both in terms of the storage, the distribution, and also the irrigation systems, in a way that wasn't originally contemplated when the RMA (inaudible) and having

policy support for that would be very helpful, because that's going to require review of consents; having that in a National Policy Statement, we see would be very helpful.

CHAIR: And one more please. On Page 19 in the original submission at the top, you observe that the NPS contains no linkages to section 69. Of course I'm well aware that Environment Canterbury is particularly aware of section 69, so the need for a linkage isn't for awareness sake, what could be done by an NPS that would alter the situation there?

DR JENKINS: This is where I might need some help from my legal advisor here.

MS ROBB: What (inaudible) has been suggested at the bottom of page 28 where for example the term "swimmability" and we've suggested that one of the ways to link that might be to (inaudible) environmental swimmability, getting the water quality passed, as in section 2 in the RMA. So it's that quite a technical (inaudible) that's been suggested. It's the italic bit at the bottom of the page.

CHAIR: Yes, I can see that. It doesn't require an express reference to section 69 to achieve that, does it?

MS ROBB: No, I agree with that.

CHAIR: All right, well that's fine, so there's no lack of clarity there. Thank you very much. Well the Board of course are very grateful to you all for coming and giving us this clarification and additional embellishment of the submission, - and also explaining the attitude on the (inaudible) submissions. We're indeed aware of the importance that Environment Canterbury takes this particular task, both from the introduction from the Chairman, and also from the fact that you, yourselves have come this

afternoon to explain it to us. And can we say, as we've said to some other submitters, how valuable it is to have submitters who have come with constructive proposals for how the draft, or proposed Instrument can be improved. Thank you very much.

[2.28pm]

CHAIR: Good afternoon. Are you Dr Humphrey?

DR HUMPHREY: I am. Yes.

CHAIR: Thank you very much. We do appreciate your coming to explain further the submission that the Board has put in and we'd like you just to take the way that suits you to present this supporting material.

DR HUMPHREY: All right. Well thank you. First of all, I should explain I'm here representing Canterbury District Health Board as one of their public health physicians. I am not here in my capacity as Medical Officer of Health, which is of course the Ministry designation. So, I think probably the best thing is just if I were to read out my presentation. If you're happy with that. If you want to interrupt, you are very welcome.

CHAIR: We're very interested to hear your viewpoint, because although we've heard from a variety of other organisations and we'll continue to do so over the next few weeks, I think this is the one that's particular, from your viewpoint.

DR HUMPHREY: That's right. Well, thank you for the opportunity to comment on the Proposed National Policy Statement for Freshwater Management.

The Canterbury District Health Board supports the action to strengthen the policy and direction for the abstraction of New Zealand's freshwater resources and efforts to improve on current capacities. Community and public health, which is the public health division of the Canterbury District Health Board work to promote the reduction of adverse environmental effects on the health of people and communities and work to improve, promote and protect their health pursuant to the New Zealand Public

Health and Disability Act and also the Health Act. Hopefully soon to be the Public Health Act.

These statutory obligations are the responsibility of the Ministry of Health and the West Coast Canterbury and South Canterbury Health Districts are carried out under contract by Community and Public Health on behalf of the Canterbury District Health Board.

This submission comments on a number of general issues on the National Policy Statement and provides specific feedback particularly related to the objectives.

Community and Public Health are supportive of the purpose of the proposed NPS to State interrelated and integrated objectives and policies as to the management of freshwater resources as a matter of national significance that is relevant to achieving the purpose of the Act. We also agree with the proposal's statement that there is a particular need for clear central Government policy that directs local Government to implement measures necessary to achieve the following goals, as identified in the NPS.

There are clearly a number of problems associated with the current system for the allocation of freshwater resource identified within the section 32 evaluation document and the proposal highlights the need for a greater direction and guidance to be put in place to start addressing the present issues.

The environment has a big influence on the life of New Zealanders. Their way of life is shaped around action and interaction with the environment. The outdoor lifestyle and farming heritage are important elements of national identity. The New Zealand environment includes not only iconic

wilderness in rural areas, but also urban environments where 86% of the population of New Zealand lives. The New Zealand environment is also integral to our economy with land and sea based primary production in tourism sectors contributing about 17% of the gross domestic product. But, in recent years, major sources of environmental pressure like agriculture, transport, tourism and energy production and consumption have expanded in New Zealand. Water quality is a key environmental issue. Safe drinking water should be available to everyone and is a fundamental public health requirement. Over 15% of the population of New Zealand is supplied with drinking water that does not meet national drinking water standards. Most of those, or a large proportion of those are in rural areas.

New Zealand has a high rate of water borne disease compared with similar countries, and there is a table there, I won't go through that but you can see that New Zealand has more than twice the rate of its next - the next country in the list which is Australia. So more than 10 times the rate of water borne disease for example in - of the USA or of England and Wales, so high rates of water borne disease in this country.

People in small rural communities, compared to urban areas, are less likely to have access to safe water supplies and similarly highly deprived areas tend to have unsafe water supplies with Māori being over represented in these communities.

Monitoring water supplies in low income and isolated rural communities to ensure safe water supply is mostly in our view, inadequate. Based on current available, data two separate estimates of the burden of endemic drinking water, gastrointestinal disease, are about 18,000 and 34,000 cases per annum. So you might say that, given these two studies, that we lie somewhere in between 18,000 and 34,000 cases, but these are

conservative estimates in both studies, so it's probably slightly on the higher side of those numbers.

Water quality in rivers and lakes in New Zealand has declined in regions that are dominated by pastoral farming, leading to a high nutrient input and microbiological contamination and this has caused destabilisation of national ecosystems and poses a risk to health.

In lowland areas, surface waters have regularly exceeded national water quality guidelines in terms of contamination and there's been constant damage to aquatic ecosystems due to run-off and leaching from pastoral farming and rural septic tanks. And as with, as I mentioned, unsafe drinking water, it's the small rural communities which are more likely to experience contamination of water supplies from failed or inadequate sewerage disposal systems.

Contamination of aquatic food gathering areas like shell fish beds can also lead to outbreaks of disease such as Hepatitis A and like viruses and other diseases.

So the District Health Board makes the following comments to the proposal for your consideration:

In general, we feel the document would benefit public health by increasing the reference to health throughout the document. As environmental health and public health are inextricably linked, this document has the potential to have a positive impact on human population health. Therefore, public health should be recognised as a positive consequence and stated as such in the document.

So we would add to the preamble, “The effective management of the freshwater environment has the potential to positively impact the health of the New Zealand population.”

With regards to Objective 1, “enabling wellbeing of people in communities,” the evaluation document identifies that there are concerns with the linkage between land use planning and freshwater management. The public health unit has similar concerns, particularly where freshwater is abstracted as part of the consent or planning process with no consideration of the intended use. So hydro electric generation, irrigation, drinking water et cetera. It is considered that Objective 1 will go some way towards addressing this concern. But we feel the reference to health in Objective 1 should be strengthened to assist clarity on the integrated nature of human health and the environment we live in. We would ask that Objective 1 is amended to include, “And cultural wellbeing, ensuring a healthy and safe population both now and into the future.”

It is considered that further structure and direction to the objectives and policies of this National Policy Statement would be required. Complementary national environmental standards may also be required to provide guidance in the form of minimum baselines for water quality and a consistent nationwide approach, particularly with monitoring and evaluation. Clearly this statement leads to that.

We support Objective 2, ensuring integrated management of the effect on freshwater.

[2.38pm]

With regards to Objective 3, improving the quality, the use of freshwater has purposes beyond recreational use and includes water use for food

gathering, food manufacture and drinking water purposes. The scope of this section could benefit by including this broader approach to the purposes of improving the freshwater quality beyond what's described as the swimmable standard reference.

Community and public health is part of the District Health Board's (inaudible 6) Objective 3 is amended to include the following: "freshwater resources can reach or exceed a standard that allows for safe recreational water contact and food gathering," and I think that would be a little clearer to people than swimmability.

Objective 4, "Recognising and protecting life supporting capacity and ecological values," this objective appears to marry with Objective 5, which is addressing freshwater degradation and also the National Environmental Standard for Sources of Human Drinking Water. We support steps that are taken that improve and enhance freshwater supplies.

Objective 5, addressing freshwater degradation. In this section the policy discusses the sustainable management of demands on freshwater as it relates to its availability and adverse effects both individually and cumulatively. The assessment of cumulative effects within the scope of the RMA has been of concern to the public health - specifically to our own public health unit. When significant volumes of water are allocated to users it may impact upon recharge zones from groundwater abstraction, potentially introducing contaminants into the water due to the hydraulic gradient. Large volumes abstracted from surface water catchment places pressure on the water body to supply the needs of downstream users during periods of low flow as well. These issues may not always be well covered under existing legal and policy structures. Water allocation needs to be provided in an informed, fair and reasonable manner and this National Policy Statement provides a platform to do this. We would ask

that Objective 5 is strengthened to highlight the need for water to be allocated in an informed, fair and reasonable manner.

Objective 6, managing the demand for freshwater. One of the predictions of the biophysical impacts of climate change on New Zealand is that both the frequency and magnitude of extreme events such as droughts and floods will increase. Case studies of (inaudible) such as the '97, '98 El Nino event provided examples of the impact of climate extremes and allow the development of long term adaptation mechanisms if such extreme events were to become more frequent. It's saying we expect them to. Such events place enormous pressure on the demand for water resources. Auckland experienced a water crisis during the El Nino event due to high demand and low flow. The Canterbury plains water scheme and Project Aqua in Otago are both high profile examples of the need for clarity on managing the demand for freshwater.

Community and Public Health ask that Objective 6 include particular consideration of the impact of extreme weather events on the allocation of freshwater and this might also include some reference to climate change, because most of the modelling for climate change suggests that while the temperature of New Zealand is not going to increase, as much as some parts of the world, we can expect a wetter West Coast and a drier East Coast, so as well as individual extreme events, we do anticipate an overall change in the pattern of rainfall in this country, particularly in the South Island.

Under Objective 7, efficient use of freshwater, this section identifies the importance of avoiding wastage of freshwater resources and the Canterbury District Health Board is supportive of sensible water conservation measures. However, it further discusses the need to avoid excessive contamination and it's unclear what's meant by excessive

contamination. So the public health unit are concerned with the inclusion of a policy statement such as this, as it implies that some contamination events are acceptable. So we would ask that Objective 7 is amended to remove Objective 7(b) from the proposed statement.

We support Objective 8, Iwi and hapu roles and the Tangata Whenua values and interests.

Under Objective 9, ensuring effective monitoring and reporting. For the implementation of the policy and plan to be effective, a process in outcome monitoring must be undertaken. It's recommended that when reporting on the outcomes, the regulatory authority concerned takes steps to ensure that the accurate interpretation of the data is undertaken and consideration should be given to ensure that the ability of the Regional Council and TLA's to undertake the monitoring is not impeded by the reporting process. This would need to be balanced against using the information correctly to inform the planning process and strategic direction of the area of concern. And we have examples of - in Canterbury itself of areas where we would expect better monitoring to take place. So in conclusion we're supportive of the statements relating to the improved management control and monitoring of freshwater resource in New Zealand.

CHAIR: Thank you Dr Humphrey. Let's see if there are some questions for you. Mrs Vernon?

MRS VERNON: Thank you. I would assume that you've only addressed the objectives in your submission but I guess if we made changes to the objectives where we referred more to, if we do human health, that you would like to see that due process go through to the policies, is that right?

DR HUMPHREY: That's right, yes.

MRS VERNON: All right, and that's why you haven't commented specifically on the policies?

DR HUMPHREY: That's right.

MRS VERNON: Thank you. I have no further questions, other than to thank you. It's nice to see a District Health Board become involved.

MR PRIME: Thank you, good afternoon. On Page 3, Paragraph 4, you allude to 50% of the population is supplied with water below the drinking standard. Are those basically privately owned or are they public rules.

DR HUMPHREY: No those are all water supplies. The national drinking water standards - there's a grading system that relates to both the source water, and the reticulation system that delivers the water supply. It's an A to E grading system and unfortunately in New Zealand, more than one in ten of our supplies, and that includes our public supplies, regularly fall below the standards required what we would consider a minimum standard. We have plenty of examples in the Canterbury area where there are rural supplies that in fact meet - rarely come above the worst possible grading. I don't need to mention them specifically but there are plenty of people in our own community who are drinking very low standard water. The standard of water that would not be acceptable - is not acceptable in New Zealand, is not acceptable in most parts of the world.

MR PRIME: Thank you.

DR HUMPHREY: Thank you.

DR HARDING: Just as an aside, why is this? Why are the levels so high in this country?

[2.48pm]

DR HUMPHREY: Why do we fail to meet our own standards so regularly? Well, the issue we come up against as a public health unit when we advocated to improve water supplies is the cost to local government of improving water supply. And the central government over the last few years has done quite a lot to address that in that are subsidies available, and public health units are there to assist local government to improve those supplies and apply for those subsidies. And Canterbury has applied for a number of subsidies which they - many local governments in this area have achieved those subsidies, so we promote that. But there's still a perception by some TLA's that it's too expensive. I have turned - when I speak to rural people in particular, I turn it around, to suggest that it's not a question of necessarily the cost of providing the supply, but whether or not our rural communities are worth it because by in large our urban communities do achieve an acceptable water standard. Rural communities often don't and I think rural communities are important and I do think they're worth it and I do think they deserve the quality of water that is set for the whole of New Zealand.

That might - that is one issue. The other issue is - occasionally we'll meet rural people and we'll say things like - there was a man who I spoke to from the North Island actually, from a rural community who said, he wasn't aware of anybody who had ever died from drinking a glass of water. It was a very flippant comment and I'm sure all of you are aware of the tragedy of Walkerton in Canada where seven people died, just from that, from drinking a glass of water. There are risks, particularly to young people, through Hemolytic Uremic Syndrome from Ecoli 0157 for example,

and we do pick up Ecoli 0157 and it's only through, I guess, good luck in some case, in Canterbury, that we haven't had a tragedy similar to Walkerton. It is a tragedy waiting to happen. It was a rural community, very similar to New Zealand rural communities. So yes we can die from drinking a glass of contaminated water and plenty of children may get Hemolytic Uremic Syndrome, which is the commonest cause of renal failure in children and many would die from that and many would require lifelong renal dialysis, if they were to get such an infection, which is a water borne infection.

The other issue for us in New Zealand is that this kind of contamination comes from animals and with intensification of farming and while the intensification is producing all sorts of benefits, in terms of increased revenue for the country, the risk we run with that intensification is of course the very contamination that effects the rural communities that we saw in Canada. And which we have seen, fortunately not with the same tragic events, but we have seen that, we have had examples even in Canterbury, of contamination, which has come from animals. So there are rural people who will say, "Look I've been drinking the water all my life, I've never had a problem," and he might be a 60 year old farmer but what those people fail to recognise is the whole environment of rural New Zealand, particularly places like Canterbury, have changed radically over the last ten to twenty years, in terms of the intensification of farming. There are more people there are far animals, particularly in cattle, and the risk is much greater than it used to be. So we've been very pleased that the drinking - for example, the amendments to the Health Act, the drinking water amendments, have provided some safety for our rural communities from this intensification, but of course then freshwater management is another part of the jigsaw puzzle, which is very important.

DR HARDING: Well, thank you for that. Some people do often make comments though that, "Oh this is coming from deer and opossums and rabbits, and birds," and that sort of thing. Which, of course, becomes very difficult then for a National Policy Statement to control what's happening with those, sort of, semi-wilder things. Do you have any view on that?

DR HUMPHREY: It may well come from those animals as well but the intensity of those animals is not increasing anything like the intensity of dairy cattle. The dairy cattle carry Ecoli 0157 in their gut and they do contaminate the land quite considerably so the difference, for example, between a sheep and a cow, in terms of the amount of Ecoli that they might produce is enormous. A cow is a bigger animal, it's bigger than a deer, and it's a hell of a lot bigger than a possum.

DR HARDING: You've suggested including food gathering as well as the contact recreation in Objective 3, and that sort of thing and I took from your submission that you were particularly trying to draw attention to the importance of that activity. In your mind is there any difference between the water quality standards for contact recreation, as compared to the food gathering. In other words, does food gathering now create a slightly more restrictive criteria, or -

DR HUMPHREY: What we would like is that particular objective is all encompassing. That it includes those things that are important to many parts of that community. Food gathering is one of those things but to restrict it to the concept of swimmability we thought was too narrow and we thought it should be explicit about including all those activities that all parts of our community are involved in.

DR HARDING: Okay, thank you. And you also make a comment at the end of your submission about better monitoring and reporting and that sort of

thing. Do you see any way in which the NPS can actually encourage better monitoring? We could have something about requiring monitoring and those sort of things, but in particular your concerns are about accuracy of monitoring, accuracy of interpretation.

DR HUMPHREY: Yeah. We know that there are gaps in the monitoring that lead to difficulties for the commissioners, for example, applications are made under the Resource Management Act. Because of the gaps in the monitoring and because of the time which - contamination in some cases is very slow, particularly if you're looking at deeper aquifers, we need - I suppose we have made it very general saying 'better monitoring', but essentially, where there is a risk to our water supplies our commissioners making decisions under Resource Management Act need to have the best possible information, in order to make the best possible decisions and they certainly don't have that at the moment, because - we end up at plenty of resource hearings, where everybody is arguing about a situation in an aquifer where neither the applicants nor anybody else is particularly aware of exactly what's happened to that water.

And specifically for example, we've had issues around nitric contamination close to Darfield. Darfield is a town that's increasing in size beyond the planning expectations of the Selwyn District Council, for example, and everybody is arguing about exactly where the nitric contamination is coming from, if there is nitric contamination, it was exceeding the map around Darfield. But developers - because there's not accurate information they're not able to say what the effect of development will be, and where the plume is, in fact of where the nitric plume is that's coming from Darfield. So that's an example of a town where, there are several hundred homes currently being planned and the effect of that development is basically open to speculation. I'm sorry to not be more

specific but what we're saying is that we do feel that our water needs improved monitoring, to make any decisions around planning.

DR HARDING: Thank you. Yes, we've just had Environment Canterbury who have suggested to us that we need to be thinking about a precautionary approach to these sort of things. Maybe that's a case in question looking at Darfield.

DR HUMPHREY: Well, precautionary approach we agree with, and the District Health Board agrees with a precautionary approach. That becomes a bone of contention with developers, who will tell us that - what do we base that on. And then we say first of all - we go back to the Hippocratic Oath I suppose, and say, "First do no harm." And then they say, "Well, we'll never go anywhere if you talk like that." I would say the monitoring means that, yes, we still need to apply a precautionary approach but if we got better data, both the applicants and developers, farmers and anybody who wants to use the water, can have a much better idea around what's going on with the freshwater and the water resource that they're using. So in a sense you need to be less precautionary, because we have better data but, we would support them very much, in saying in the absence of data, we have to be very precautionary, because we don't know what's going to happen.

[2.58pm]

DR HARDING: Okay, thank you.

CHAIR: Not only do we have people on the development side of things, which after all, it refers to people, and they're an important part of our community as well. Not only do we have people on that side of things saying "Well, you haven't proved that we're doing any harm." We actually have had

some who say, “Well there should be an allowance for further degradation, on account of the value that will be gained, shall we say, from more intensive dairying.” Relying on the kind of, well balanced approach some people would say, unbalanced others would say, in the stated purpose, or the explained purpose of the RMA. So that between you and other submissions that have been cleared say, remove this reference to excessive contamination, implying that any contamination or any further contamination is not acceptable there are some who are giving directly the opposite idea. So what they’re focussing on is improvements to this instrument that will make it more fully responsive to that purpose of the Act. But the purpose itself isn’t all one bottom line of no further contamination.

DR HUMPHREY: Yes. I guess - and I have spoken to the team who have put this together and we talked about what would we suggest in particular if we’re suggesting removal of something from one of the objectives. I think, unless you can be specific about that, it will create more difficulties than it removes because what will then end up is everybody argues about what ‘excessive’ really means.

CHAIR: This isn’t excessive.

DR HUMPHREY: Yes precisely. So I think having a statement like ‘excessive’ in there, is likely to create a lot of difficulties for people. There could be alternatives, where we were much more specific about what we meant by either ‘excessive contamination’ or indeed what we mean by ‘contamination’ itself. What does it mean and what is acceptable to our communities?

CHAIR: And that implies what the National Environmental Plan is?

DR HUMPHREY: Yes

CHAIR: Thank you very much and what you're telling us is that this isn't entirely your own work, but this a team of you that have worked together as a group of peers to present this to us, so in thanking you can we ask you to thank them as well, for brining another viewpoint to the task that we have. And we're very grateful to you.

DR HUMPHREY: Thank you. And I should point out, that our Board member is here, Elizabeth Cunningham has come along from the District Health Board.

CHAIR: Good afternoon.

DR HUMPHREY: We do present - there is a public health - it's a division of the District Health Board - we represent the whole Health Board here. Our submissions are considered by the executive management team, the Clinicians, the Surgeons, the Radiologists, everybody had an opportunity to put in, obviously most of the time they don't but it is definitely a District Health Board presentation rather than simply a public health unit presentation.

CHAIR: Well it may be unique in those regards in the experience of this particular board doing this task. So we're very, very grateful to you both. Thank you.

ADJOURNED [3.04pm]

RESUMED [3.42 pm]

Audio file: dpm0107

CHAIR: Thank you very much. Good afternoon.

MS RIDGEN: Good afternoon.

CHAIR: We're very glad to see you. We have before us the original submission and you are here before us to give evidence and we believe you have got something further to give us. Is that right?

MS RIDGEN: We have a summary of our evidence and also these documents that we have prepared with the council that address these some of the issues around drinking water and (inaudible) management.

CHAIR: Well thank you very much. Which of you will speak first? Thank you very much.

MS RIDGEN: My name is Jenny Rigden. I am programme manager for the Healthy Environment programme at Christchurch City Council in strategy and planning group; and with me is Elizabeth Pearson, known as Lizzie. And Lizzie is a senior policy analyst at the council, also in the strategy and planning group.

The submissions and further submissions that we have lodged are part of an organisational submission; and just to clarify that, with the council we have a policy of 3-layer policy of submissions - there have council submissions which go to the core council for approval; there are organisational submissions which are signed off by the chief executive which this comes into that category, and the third layer is a staff

submission which is done on a unit basis across council, depending on, partly the gravity of the matter being considered, but also whether with the council has existing policy around it; so that where we have got existing policy and there's a fairly good framework already, and that's more likely to be an organisation submission.

CHAIR: Okay.

MS RIDGEN: Lizzie and I will give you a brief summary of the council's submission of evidence as requested in the hearings procedures.

Before actually addressing submissions and such, we would like to give the Board an overview of the freshwater resources in Christchurch and their importance for the city, and then summarise the key issues facing those resources, and discuss the Council's responsibilities in relation to the management of the freshwater under both the Resource Management Act and the Local Government Act.

The Council welcomes the proposed National Policy Statement, which has the potential to address some critical issues, especially those facing the freshwater management or management of freshwater. It also has the potential to provide a much needed national framework and the Council, however, is concerned that as regards to parts of the National Policy Statement are unlikely to result in good outcome, and may have unintended consequences.

So why we are interested in this, there is an overview of freshwater resources for Christchurch. They are important to the city, and to the people of the city. They give us a sense of place, and we have certainly have kept up on that, through the work we have done in preparing strategies around surface contract and water supply.

There are substantial freshwater resources within the city, and they are coming under pressure, from land use changes and intensification and in population and household growth and climate change.

Some of the key ones include - the Christchurch west melting aquifer system, which we use for our primary supply of drinking water for the city. The Lake Ellesmere, Te Waihora and Lake Forsythe (inaudible) water bodies; the Avon, the Heathcote and Styx Rivers, and within our boundaries parts of the Waimakariri and the Halswell Rivers and also there are many streams and tributaries, particularly Banks Peninsula which has a lot of spring feed streams.

The importance of those resources - they are critical to the well-being of Christchurch residents, and the environment in which we live. The Council supplies water from the aquifers to the urban areas of Christchurch - next to over 340,000 people.

Currently this water requires no treatment to meet drinking water standards, and that is a resource that we are very proud of as a city. A number of springs and streams occur across Banks Peninsula and these are also relied on to provide water for the local communities. The lakes in Christchurch are internationally important ecological assets, in winter the (inaudible) of the Waiwera, is home to approximately three-quarters of the entire New Zealand population of Southern crested grebe and they are fascinating birds to watch especially if you see the little tricks on the backs of the parent birds.

For Lake Ellesmere and Te Waihora, we have the largest coastal lagoon in New Zealand, covering some 20,000 hectares. And that gets larger and smaller depending on when the lake is opened, and as many as 38,000

birds. The lake also supports a wide range of plant, fish and invertebrate species, including some endangered and vulnerable species, including the white heron, and 10% of the New Zealand population is in that area.

The rivers and streams in Christchurch are a defining landscape feature, for the city and that is particularly shown in the central city with Avon going through the Botanical Gardens in Hagley Park, which give's a context to the built-in environment within the central city. They provide amenity and recreational opportunities, as well as being of immense cultural importance.

Key issues - in managing the freshwater resources both city council and Environment Canterbury face some important issues. All of the major catchments for the city - the Heathcote, the Avon, the Styx are spring-fed and are hydraulically connected to groundwater.

In some cases, springs in the upper reaches have stopped flowing where groundwater (inaudible) either through abstraction or lack of recharge, or when land around them has been disturbed by development and earth works.

Secondly, the water quality of the surface water resources varies widely across the city. The Avon and the Heathcote generally have the poorest water quality, reflecting their urbanised nature and that's occurred over a period of 150 years of just increased urbanisation and deteriorating water quality (inaudible) industries have been removed (inaudible) but in general it doesn't affect that long history of (inaudible) waterway.

The majority of monitoring sites in the urban area have recorded sediment concentrations that exceed the guidelines and a large number have exceeded guidelines for behavioural impediment in fish. Heavy metals are

also been found in urban rivers and can be toxic to plants and animals at low concentrations and some of them, in particular, zinc is one that we have concerns about, in trying to manage the concentrations in the rivers.

[3.50pm]

Thirdly, the Council places issues with managing water supply, in the groundwater resource that provides it. Currently, the residents receive high quality ground water that requires no further treatment. This affords them some of the best water in the world. However, a portion of the groundwater used for the public reticulation supply, is extracted from semi-confined and unconfined aquifers in the western portion of Christchurch. And approximately 30% of the citizen's water supply is forced through the shallowest aquifer, aquifer 1. Unconfined and semi-confined aquifers are characterized by thin variable soils underlaying (inaudible) protection against (inaudible). Just to illustrate this - I'm not sure, did you see that earlier today with Environment Canterbury and they explain, this is variation 6 of the natural resources regional plan. And for Christchurch we have got central city in here. And the airport is sort of out here, but before that Christchurch (inaudible) aquifer system there is a large area of unconfined aquifer (inaudible) within the whole of the system. That means that any land use activities on that area - may cause risk to the quality of the groundwater underneath, coming into the city. So this is an attempt to manage this, Environment Canterbury have put together a variation on their plan which is to control the land uses, dependent on the different type or the different degree of protection (inaudible) so the green is unconfined and has the strongest planning requirements on it, as far land use to protect ground water. Then we come to the semi-confined, the brown, where unfortunately some of that area you can see you already have a city urban development over top of unconfined aquifers in some pockets. We have lesser controls for the brown, which is the

semi-confined, and less again for the confined aqua systems to the east of the city.

So that is in the process of being incorporated into the natural resources regional plan. It's been notified. Submissions have been received, but we have not yet had hearings on those provisions.

The protection of our groundwater for the city, and for our water supply, is a significant issue, so we are working hand in hand with Environment Canterbury on that.

As well as risks to groundwater quality, there is an increasing demand for the resource itself. Christchurch has a relatively high per capita consumption of water, compared to other cities around New Zealand, and also internationally.

As the population of Christchurch continues to grow, it is expected to increase by 80,000 over the next 30 years, and greater consumption will put greater pressure on the groundwater resource. Demand for the resources is aggravated by the fact, that high quality ground water is often used where lower quality water will suffice. For example, washing cars and flushing toilets.

If current patterns of consumption continue, then council's extraction cap, which has been signalled through (inaudible) and again to illustrate this, first of all, the consumption patterns for Christchurch are reflected quite nicely here, we've got the blue is a typical pattern of use for water in Christchurch on a winter's day. The brown is the typical pattern of water use on a peak summer's day. The difference is primarily for irrigation and gardens. We're called the Garden City, people like to water their garden. One of our challenges is to reduce that big jump in use in the summer, by

potentially other sources of water that will suffice, that are not of such high quality and to try and reduce our total per capita use. In one of the documents you were given, the water supply strategy is the approach - sets out the approach we plan to take.

That has now been formally adopted by Council and implementation of that strategy is just beginning as we speak.

To further illustrate it, and this is one of the sort of crux of the water supply strategy, just to explain this, if we continue the use as we currently have it, the pattern of use; this is historical use, as it just grows and we don't reduce per capita use, we are going to hit this cap which has not been formally been set, but it has been signalled by Environment Canterbury. But by 2051or thereabouts we would hit the cap and have no more water to be able to use at the rate that we currently do. We'd have people that weren't being (inaudible) water that they thought would be available to them.

If we can just reduce that - so current use, that is based on about 420 litres per person per day at the current rate of use. If we can get that down initially to just 350 litres per person per day and then eventually - so initially to 375 and then to around 350 through the actions we intend to take, then the amount of water we have in total should last about potentially another fifty to a hundred years. So the answer seems simple, it's just getting behaviour to change, but that is the main approach taken in this strategy and the challenge we have as a council.

Council's responsibility - the main resource management function for territorial authorities such as the council are set out in section 31 of the Resources Management Act and sections 125 and (inaudible) of the Local Government Act. Under the Resource Management Act the control of

water quality and use is largely a Regional Council function and the control of the effects of land use activities is largely a territorial authority function.
Under the Local Government Act responsibility for maintaining and managing water supply, grey water and storm water networks lies with territorial authorities. Therefore both Regional Councils and territorial authorities have responsibilities regarding freshwater management and these responsibilities are directed by both the Resource Management Act, the environmental outcome and the Local Government Act, which deals more with the infrastructure and the cost.

To meet its resource management responsibilities council have the City Plan and District Plan. To meet its Local Government Act responsibilities we have a water services assessment plan and a number of asset management plans and the LCCCP.

The Council's strategic directions regarding resource management are set out in a series of environment strategies. And we already talked about the water supply strategy and also provided to you today is the draft surface water strategy which is actually just out for consultation this week. And we have had meetings with the public recently on that and we continue to do so. And it looks at the surface water, the rivers, the late, and how we will take a multi-value approach to their management and future (inaudible) approach and that work has been in focus probably since the early 1990s but this is going to formalise this multi-value approach for councils and the way it manages our surface water bodies.

Now it is the Council's submission that although the proposed National Policy Statement is a Resource Management Act document it cannot be developed or implemented in isolation with the Local Government Act responsibilities of councils. And now I'll hand over to Lizzy who will take

you through some of the specific issues we have with the National Policy Statement.

MS PEARSON: In the context that Jenny has just outlined, the Council's submission suggested some specific improvement that could be made to the proposed National Policy Statement and I'll just give a brief summary of some of the key points for you. Firstly, a clarification of the links between this National Policy Statement and other National Policy Statements. There are direct links between Freshwater Management NPS and particularly the proposed NPS for Renewable Electricity Generation and the New Zealand Coastal Policy Statement. And in our submission we suggested that these links should be identified and guidance given for decision makers where there are overlaps. An example is Objective 5 of this NPS which is "to avoid further degradation of freshwater resources" and how that is in conflict or not, with the objective of the proposed NPS for Renewable Electricity Generation, which is "to promote the development and upgrade of new and existing renewable electricity generation."

[4.00pm]

So you could see that there would be a case where decision makers might be faced with, for example, where a hydro-steam proposal where they would on one hand have the NPS for Freshwater Management saying that the objective of the National Policy is to protect and to avoid further degradation of that freshwater resource. And on the other hand the decision maker would be faced with the objective from the Renewable Electricity NPS which promotes the development and upgrade of schemes such as hydro.

In general the submission is supportive of the objectives and policies and the purpose of the proposed National Policy Statement. Looking at the objectives, turning to Objective 3, which refers to "reaching or exceeding a swimmable water quality standard," the Council is concerned that the emphasis on recreation standards exclude other values, particularly the use of water for drinking water supplies and community water supplies. As currently written, the objective only refers to the identification of resources that will meet recreation standards, and in our submission we said that that should also be widened to include other values such as drinking water standards. Promoting also fit for purpose, as summarised by Jenny, high quality water, particularly Christchurch and Canterbury is used for activities where definitely low quality water would be okay to use. And the Council views using water fit for purpose as a key tool in improving the efficient use of freshwater resources. Therefore, in our submission we suggested that Objective 7, which is "to ensure the efficient use of freshwater" could also include using water fit for purpose or encouraging the use of water fit for purpose.

A particular concern of ours was how Policy 1 and (i) might be applied, is (i) the right one? 1(i)(ii) might be applied. As written this policy appears to prioritise domestic water supply over other demands, provided appropriate demand substitutes are established. Now firstly, I have to say that when I was first reading the NPS to prepare the submission, I had read that domestic water supply as in context of section 14 of the RMA in terms of individual domestic needs. And actually when I read it again, I'm actually very unsure about whether that is actually referring to section 14 or whether it is actually referring to community (inaudible) or something different. So firstly, we think it is unclear about what domestic water supply actually refers to and there is no definition given in the policy statement.

Secondly, the policy doesn't contain any guidance on who would be responsible for developing that demand water supply strategy, or who would decide whether that demand strategy is appropriate or not. So is it the case that the territorial authority would prepare the domestic water supply and the Regional Council would decide whether it is appropriate or not? To us it seems unclear And it is particularly unclear about whether the demand strategies referred to are the same or different from the assessment of water services that we are required to prepare under section 125 of the LGA. I have a copy of our water services assessment for - I've only got one copy because it is so large, it gives you an idea of the work and what we put into developing that document which we are required to do under section 125 of the LGA. I guess one of the key points in the submission of my evidence is whether the demand substitute referred to in Policy 1 are actually the same as that water services assessment or whether they're different. Either way, the Council expects that the availability of water, a reasonable domestic supply be a priority in the National Policy Statement.

CHAIR: When you say domestic supply?

MS PEARSON: Yes

CHAIR: You're not including cleaning the car, or watering the garden or even flushing the toilets, is that right? So purely potable -

MS RIGDEN: One of the issues for council supply is that we can't control these things on an individual basis. We need to be able to continue to supply water regardless of who is turning the tap on at the far end, partly because of fire fighting requirements if nothing else; so you can't turn off the supply. Therefore what we really to need that to say is the community supply, and while accepting that we could put in demand strategies that did the very

most we could to try and reduce per capita use by putting water restrictions on and those sorts of approaches. As a Council supplying water we can't differentiate between where that water is going.

CHAIR: So you'd like us to understand this as if the word "domestic" is removed and the word "community" -

MS PEARSON: That's a good point. Yeah.

So turning to Policy 3 which requires territorial authorities to notify district plan change or variation no later than 40 working days following the Regional Policy Statement (inaudible) pursuant to Policy 1. This timeframe would require us to be preparing plan changes long before the RPS change that we were giving effect to was certain. And therefore, without any certainty about what the district plan change or variation should contain.

In addition, this is something I brought up in the evidence, the requirement to notify a plan change seems to be absolute, in terms that the Council would be required to notify it regardless of whether the district plan already contained provisions that gave effect to what was being required through the RPS. And in this regard, if this is the case, then Policy 3 would go further than section 73 of the RMA in regard the preparation of district plans.

So the Council submitted that 12 months after the RPS change is made operative would be a more realistic timeframe for the notification of the district plan change. We also submitted that the Policy could clarify that changes only need be made where the district plan does not already give effect to the RPS.

A general point that we made was that the scientific uncertainty of the effects of activities on freshwater resources is a key issue for certainly us and Environment Canterbury here in Christchurch. The issue is partly alluded to in the section 32 statement and the Council considers that managing scientific uncertainty will be crucial to achieving the objectives of the proposed NPS as the consequences of making incorrect decisions are potentially significant. For example, if the first two aquifers of Christchurch's ground supply became contaminated, and 50% of our water supply comes from those first two aquifers then the treatment requires to remediate drinking water standards would cost at least $200 per megalitres and that's the operational expenditure. That does not include the capital expenditure that we would have to fork out to put in place treatment works and things like that.

[4.10pm]

So we submitted that a precautionary approach should be taken similar to that provided for in the proposed New Zealand Coastal Policy Statement. Policy 5 of the New Zealand Coastal Policy Statement states this: "A precautionary approach should be adopted towards activities whose effects are uncertain, unknown, or little understood but could be significantly adverse." But a similar policy, we feel, would be useful in the proposed NPS for Freshwater Management.

So further to those main points there are a few aspects of the proposed NPS which we felt could be clarified.

Objective 7, which refers to ensuring that allocated water is used efficiently and I read that as being that water already allocated is used efficiently. But this wording doesn't appear to reflect the section 32

evaluation which states that the objectives will require councils to allocate water efficiently.

Therefore, in our submission, we sought that the objective be clarified to refer to both the fact that water should be allocated and used efficiently.

In the preparation of regional policy statements and plans, Policy 1 - sorry, I'm jumping all over the place a wee bit. So whilst policy, for example, section D requires Regional Councils to direct how tangata whenua should be involved in local authority decision making, and policy 1(e) requires Regional Councils to identify tangata whenua values and policy 1(f) requires regional district plans to recognise those values. The proposed NPS contains no requirement for Regional Councils to consult with tangata whenua when doing this.

And we submitted that Policy 4 would be an appropriate place. Policy 4 referring to the preparation of policy statements and plans, would be an appropriate place for such a provision.

A key feeling and I think this came up in a list of submitters was defining industry good practice. And Policy 2, 5 and 6 all refer to industry good practice. But that is not to defined in the proposed NPS. And there is at the moment, none that I am aware of, any national guidance on what industry good practice actually is. In which case, as it stands at the moment it would be up to Regional Councils to determine what is meant on a regional basis and it would certainly be useful if the government could prepare a guide or standard which could perhaps be referred to in the proposed National Policy Statement.

Policy 3 which is the one that refers to territorial authorities, notifying a plan change or variation. It seems to stipulate that the conditions outlined

should be included on land use and subdivision consents granted after the commencement of the proposed NPS. This would seem to mean that these would include those consents granted after the commencement of the NPS and before the plan change and variation required by Policy 3 had been made operative. So our interpretation was that territorial authorities would be required once the plan change required by Policy 3 is in effect, to then retrofit conditions into land use and substitution consents granted from the commencement of the NPS.

In my evidence I noted that section 128 of the RMA does provide limited ability to review conditions of consent. However, that retrofitting or anticipating the conditions that could be imposed would not really be reasonable.

So those are the key points. So in conclusion, we would like to thank you for the opportunity to submit and to speak to you today. In general, we are very supportive of the objectives and policies and particularly supportive of the need for a National Policy Statement for Freshwater Management. However, we think there are areas where the NPS could be improved and some key points clarified as outlined today.

CHAIR: Well thank you very much. I hope we may ask questions that arise, please

MRS VERNON: Thank you. I would just ask you, would it worry you if it was called “industry best practice” rather than “industry good?” Another submitter has suggested that in actual fact the common - the more recognised term is “best practice” rather than “good practice.”

MS PEARSON: That's certainly the term that we use, is using "industry best practice." But that still doesn't alter the fact that there isn't national guidance on what that good or best practice is.

MRS VERNON: That leads to my second question on the item. In the Regional Council's proposed natural resources regional plan do they define industry best?

MS PEARSON: I don't believe they do.

MRS VERNON: And you haven't got it defined in here either in your documents?

MS RIGDEN: No. I may be incorrect on that, but not to my knowledge.

MS PEARSON: The NRP, sorry, the regional plant (inaudible), it's more setting standards rather than actually prescribing what particular mechanisms or treatment mechanisms should be used

MS RIGDEN: And what is available guidelines on certain aspects of practice for example, sediment (inaudible) whereas those sort of guidelines are available.

MRS VERNON: Going back to the question about the domestic supply, ECAN has suggested that in actual fact, out of variation 6 from Environment Waikato there was actually a definition of domestic and municipal supply; and they've actually suggested that that is perhaps something that the Board should look at it if they're trying to decide - you know, if we decide that it needs defining and I just wondered if you have an opinion or whether you have seen it, to be able to comment on it. It does go down to - it talks about human drinking, sanitation needs, individual household; it's

got two paragraphs, it's quite lengthy. If you haven't seen it then it makes it difficult for you to comment. But it's all right.

MS PEARSON: Domestic and municipal supply (inaudible) community supply.

MRS VERNON: Another submitter has also suggested that we need to broaden it beyond domestic, I think in their submission it's community - "metropolitan and community." So that is a variation on the same. Thank you.

In your original submission on page 18, you talk about the notable values and there has been quite a lot of concern that this is a new term. And I note that you make the comment the definition should also be clear what level of value become notable? And I just wondered whether you have got any - I mean you have given some extra values but I wonder if you have got any opinion about what "level" is? I accept you know, that there are some missing terms there, that you have added, that will need consideration , I wondered whether you had an opinion of when a level - when does a value become notable?

MS PEARSON: I mean obviously to some extent there is guidance in the RMA already and it's probably a combination of that and what the community places value on, as well, I would say. And that can be identified through processes like what we are going through to develop the surface water strategy.

[4.20pm]

DR HARDING: In your original submission, on page 7, you sort of changed Objective 3 quite markedly by focussing (inaudible) on protecting outstanding fresh water resources, improving water quality (inaudible),

and maintaining water quality and other fresh water (inaudible) and now you've added drinking water and microbial, so you sort of lifted the bar quite a bit and made it somewhat more complex. Would you like to comment on that?

MS PEARSON: Yeah. So the first bit, in terms of setting out outstanding and degraded freshwater resources, I think that really came from me trying to get across it on my first reading, that first bit which refers to the progressive enhancement of the overall quality of freshwater resources is quite subjective in terms of what is meant by "overall quality," is it that every freshwater resource is in the general (inaudible) incline, or is it that on average the freshwater resources of New Zealand have a - are of a better quality? And then when I was reading the policies, see the policies seem to develop this categorisation of outstanding, the in-between and the degraded freshwater resources. And I was wondering whether if that is the objective; if the objective is to actually protect the outstanding ones and to improve the degraded ones, and make sure the ones in between don't get worse, then maybe that should be stated clearly as the objective. Yeah, so that was the reason for splitting out. But I can see that it does make it extremely wordy objective and when you compare it to the others it probably wouldn't fit as written there. In terms of including the drinking water standard, that was the point I made just in summary just now in terms of limiting it to recreation standards, or "swimmable" standards as referred to, well it just seems rather limited when certainly in Christchurch one of our key resources, the groundwater aquifers, are managed for drinking water - or one of the key uses is drinking water and (inaudible). Does that answer you -

DR HARDING: It does.

MS PEARSON: Because I can see there is probably quite a lot in there.

DR HARDING: To apply that standard even wider to the resources around the whole country would be (inaudible) are significant.

MS PEARSON: Well I guess that is where the "ensure appropriate freshwater resources meet those standards." So that would be up to the Regional Council presumably; to identify - you could see how it could work in terms of Regional Council, to identify which resources should meet recreation standards; which resources should meet drinking water standards in their area.

DR HARDING: Okay. And just picking up that point also about the notable values, you have added a number of values: landscape values, heritage values, water quality values, etc. Would you like to tell us a bit more about that?

MS PEARSON: So the current definition refers to notable values are scientific and ecological, biodiversity, cultural and recreational and again I guess, there's the sort of implicit focus on recreation again and I guess what I was trying to say in the submission was that there are other notable values. For example, in Christchurch, places like the Styx River and the lakes on the Peninsula, Te Waihora and Wairewa actually very important to the landscape. They are features of the landscape, and certainly the rivers in Christchurch are identified in our city plan as outstanding natural features. I think I was just trying to get across that freshwater resources, surface water resources, are important features of our landscape and they can have notable values in that respect as well.

In terms of heritage, I guess this is more in an urban setting where, particularly in Christchurch, our rivers have - they have a very strong history associated with them. That is the oral history and written history as

well as the physical history in terms of the bridges and structures that are alongside them and over them.

And water quality values, in some freshwater resources you could say one of their notable values is that they are of high water quality. And that could be our groundwater resources, as an example of that. So that was my thinking behind that.

DR HARDING: Okay. Thank you.

CHAIR: So what value do you place on the word "includes" in that explanation of notable values?

MS PEARSON: Yes, I suppose that's not exclusive.

CHAIR: In the Canterbury region, the Regional Council might say, well in this region of landscape values and then Northland region the Regional Council might have some other idea.

MS PEARSON: That is a good point, yeah.

CHAIR: When we are applying a national thing in different regions, it requires a regionalised approach, doesn't it?

MS PEARSON: Yeah. So, in a sense those three outlined there are the bottom line values that -

CHAIR: Well it might even be the things that the authors felt might be forgotten or overlooked. So it includes those, but of course, it has its natural meaning of any values of note or capable of being noted.

MS PEARSON: Yeah

CHAIR: So that in the Bay of Plenty, you might have hydrothermal water

MS PEARSON: I can see why you might not want to limit it to a less -

MS RIGDEN: It might be helpful to actually to explicitly say that it includes, but is not relative to so that that can -

CHAIR: Well again, we wouldn't want to have more words than what is necessary to say would we have to say would we?

Can I ask a question about your problem with other NPSs. This Board only exists for one task: ad-hoc, which is to see if we can improve the content of this proposed instrument. And we are not advisers to the government, in general. And we don't have anything to do Coastal Policy Statements and we don't have anything to do really, with Renewable Electricity. The fact that all three happened at about the same time, is the choice of the previous government and they must have felt that they could manage them so they didn't get inconsistencies between them, and they can, because in none of those three cases does the Board of Inquiry make decisions. In every of those cases the Board of Inquiry makes a report to the government with recommendations and presumably the government will look at them and before they enact them or do whatever the right word is, they will iron out any inconsistencies. Is that a reasonable approach for us to take, do you think?

[4.30pm]

MS PEARSON: I think so. I think I would still say that - yeah, maybe it is something that isn't this Board's responsibility, and it is the Ministry's

responsibilities to sort out. I guess this is the forum in which we can raise that issue.

CHAIR: I'm suggesting that in fact this isn't the forum, but there may be another forum, like political access to the government that the Christchurch City Council undoubtedly has, but the Board of Inquiry undoubtedly does not have.

MS PEARSON: I think in terms of improving this NPS, I still think that the NPS would be improved by, as in the submission, at least mentioning the overlaps or the links with other NPSs in say, the preamble. I suggested in the submission that it would be mentioned in the preamble but that was - that would improve the NPS.

CHAIR: I don't want to take the point too far, but it is not before this Board even to assume that in the end, the government will make any or all of these instruments. It might say, "well, we've decided we'll do without."

MS PEARSON: Yeah.

CHAIR: Then we get the same thing with the question of industry good practice. What industry is it that we are thinking of? Is it the "developing of new suburbs" industry? What other industries are there that would be relevant?

MS RIGDEN: Well, any industry that discharges.

CHAIR: Any industry? So you could have wool scouring works?

MS PEARSON: Or any industry that uses water as well.

CHAIR: Dairy factories? So that we are talking about the good practice or best practice of maybe 20 different industries. And the next thing is, would you say that the best practice in 2009 would still be the best practice in 2019? Probably not. We would hope that some of them would be improving rather over their present performance. So do you think it is possible that a general phrase like "industry practice" has got some merit, so that whatever is the industry, and whatever its best practice at the time can be ascertained and applied without having a new NPS?

MS PEARSON: Yeah. I certainly agree with you that we wouldn't want to, in a sense, go into detail about what was meant by "industry good practice" in the NPS. I think there would still be a benefit in referring to separate guidance, but again, maybe this comes up with the point you made earlier Judge it in terms of what the Board can actually do.

CHAIR: And I suspect too that, shall we say today, if somebody said to the government, "We think you ought to establish and enact what is industry best practice for these 20 industries." Do you think they would do it, or do you think they'd say, "No, no, that's going over the top and that's not our policy."

MS PEARSON: Well I think you're right. But as it is currently written, that responsibility falls on the Regional Councils and district councils to do, which you could say is a very efficient way of defining industry good practice which to put it simply would be defined by the industry, rather than defined -

CHAIR: Or by professionals who observe that industry or maybe who advise that industry; is it possible even that the best practice for new suburbs around Auckland is not as good as the best practice around Christchurch, or vice versa? Or maybe it is different because of local circumstances.

It's more an aspirational thing than a hard line rule and we're talking about a policy statement, not a plan.

MS PEARSON: Yeah.

CHAIR: Well thank you very much. We do appreciate your help and for being willing to answer our questions, some of which may seem a bit simplistic. But thank you for a well thought through submission.

MS PEARSON: Thank you.

ADJOURNED [4.35pm]