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

MONDAY 07 SEPTEMBER 2009

**HELD AT THE NAPIER WAR MEMORIAL CENTRE, 48 MARINE PARADE,
NAPIER.**

HEARING OPENED [9.05 am]

APPEARANCES

Ms L Savage, New Zealand Conservation Authority.

Ms H Codlin, Mr A Newman and Mr D Lew, Hawkes Bay Regional Council.

Mr K Hudson, Ms K Wilcox, Mr D Crone and Mr P Murphy,
Gisbourne District Council.

Mr B Dodds and Mr D Renouf, Hawkes Bay Environmental Group.

Mr D Renouf, Himself.

Ms L McKenzie and Ms B Buckley, Federated Farmers of NZ Inc.

Audio file: dpm 0142

CHAIR: Please be seated. Well good morning, and welcome everyone. As you know we're continuing to hear submitters on the proposed National Policy Statement and we'd like to start with the New Zealand Conservation Authority, and you may all understand that we are not expecting any particular formalities. Submitters are free to present however they would like. And we would like to have the opportunity, if you're agreeable, that when you've presented what you want to say, that we might have some questions, and an exchange with you for a short time. We wouldn't want to hold you up unnecessarily. Now first we start with the Conservation Authority, and you're Ms Savage is it?

MS SAVAGE: Yes.

CHAIR: Good morning.

MS SAVAGE: Good morning.

CHAIR: Thank you very much for coming.

MS SAVAGE: My name is Louise Savage, and as you know I'm here to represent the New Zealand Conservation Authority in support of our submission on the proposed National Policy Statement for Freshwater. I live on a sheep and beef farm at Otoko, which is in the hill country of the Gisborne district. I left home at about 5:30 this morning to be here, so you can be sure that I'm deeply concerned about the state of New Zealand's waterways, and I thank you for this opportunity, but I need to give you a bit of background about the New Zealand Conservation Authority, and myself first.

Every day I cross at least two rivers. I look out on a tributary of the Waipaoa River from my kitchen window, and here it is with my neighbour's shed falling over the bank. And the river, to a certain extent, dictates our daily life. If it floods we often lose power, and telephone, and if it changes course we actually lose large areas of our flat paddocks, and even stretches of road. The farm I live on contains around 10 kilometres of riparian land bordering the Waikahu River, and another tributary stream of the Waikahu River that is entirely within our boundaries, that's our road a couple of years ago.

CHAIR: Just excuse me a moment. Those of you at the back, please bring your chairs forward, and come where you can see these photographs, you'll be missing something from there.

MS SAVAGE: The road up there - and this washout would have been big enough for probably several buses to fit within it. Around 95% of the riparian margins on our land are fenced to exclude stock, and the stream that exists entirely within our boundaries has been fenced with the assistance of the Biodiversity and Condition Fund. And a QEII covenant has been placed on both the stream, and the bush remnant surrounding it. So it's possible to do these things in some places. This is our stream that's entirely fenced and the bulldozed line is where the fence goes around. But I feel it's important to point out that asking farmers to fence waterways is not going to be universally practical, or even possible.

My brother-in-law's farm has tens of kilometres of stream that would be next to impossible to fence. And it was expensive. This one which had 7 and a half K's of fencing cost \$30,000 to do, and it was possible only because of the contribution of the Biodiversity Funding. Also we already had alternative water supplies in the form of dams in every paddock and that alone was a job that took fifteen years to complete. And probably most importantly we were highly motivated to do it. But there are other

things we can do, and proper codes of practise for fertiliser use would be a good place to start.

My own credentials include an honours degree in soil science, and I work part time as a consultant soil conservator, primarily on State of Environment reporting, and reporting on climate change for the Gisborne District Council, and they kindly gave me a lift down here today.

[9.10 am]

I was appointed to the New Zealand Conservation Authority in August 2008. And I'm convenor of the committee that considers all the freshwater issues. My fellow Authority and Committee Members include a freshwater fish expert, Dr Bob McDowell of Christchurch, who is a semi-retired freshwater fish scientist, author of numerous books and publications on freshwater life. Also Mr Hally Toia of Dargaville who has a special interest in issues concerning water, and Ms Linda Koning of Te Teko, who is both a Resource Management Planner, and an Orchardist.

So I'll briefly explain who and what the Conservation Authority are. We are a group of thirteen, and we are a statutory advisor to the Minister of Conservation, and to the Director General of Conservation on conservation issues of national importance. The Authority was established by section 6(a) of the Conservation Act 1987. The functions of the Authority set out in the Conservation Act and in various others, the National Parks Act, Wildlife Act, Marine Reserves Act, Reserves Act, Wild Animal Control Act, and Marine Mammals Protection Act, and the New Zealand Walkways Act. The Authority has specified responsibilities with regard to consultation with Tangata Whenua set out in Treaty claims legislation as well. And amongst its roles, it forms a crucial bridge by

which the wishes of New Zealanders can be incorporated into the ten year management strategies, and plans for all the public conservation lands owned by the people of New Zealand. The Authority has the power to advocate its interests at any public forum or in any statutory planning process, and has the role of approving high level ten year conservation management strategies for the conservancy offices around the country. So naturally the Authority is very interested, and concerned about New Zealand's freshwater resources, and in fact we believe they are approaching crisis point.

Water isn't always in the places where it's most needed, available at the time when it's most needed, and sometimes both of these at the same time. I'll just give you a different picture to look at. That's the Waipaoa River a few weeks ago when it was quite high.

New Zealand has a long history of inadequate management of the quality, and quantity of its freshwater but this shortcoming was obscured for a long time by our relatively small human population, low levels of industrialisation, high rain fall, and our abundant rivers and lakes. But as we all know this has changed rapidly over recent decades and now there's wide recognition that management of our freshwater is approaching crisis.

Consent for water takes seem to have been granted on a local quite ad hoc basis, without planning at either regional or catchment scale. And we got away with this for a while because some of those who hold water consents haven't needed all their allocation all of the time, some users took care to share and coordinate their extraction, but in the end as pressure on resources grows, over-allocation has now become obvious in some areas. Quite a distortion in land values and intensification of land has occurred where access to water has been assumed to be a right, whether or not the intended use is environmentally sound. Yet we believe

current and future generations of New Zealanders all have the right to enjoy the various benefits of our common freshwater resources. But to us it appears that economic drivers are dominating the management of freshwater issues to the detriment of many other values and beliefs.

So freshwater management does require taking a long term holistic approach to conserve and protect freshwater for all its very many uses and values.

That's (inaudible) trying to go to school one day a few weeks ago when we had a bit of rain in Gisborne after a long dry period, so we're quite influenced by freshwater in our day to day life where we are.

There's a dire need within New Zealand for people with technical skills in hydrology, sediment processes, channel management, monitoring, planning, ecology, taxonomy, and water quality. State of Environment reporting is currently not nationally consistent, partly due to great disparities in council resources. If councils are to do the required jobs properly, they are going to need the money to do it.

Against this background the Authority developed a set of principles last year, and these guided our response to the proposed National Policy Statement for Freshwater. Our principles acknowledge the interaction of freshwater with the land from the mountains the sea and recognise that freshwater is essential for all life, in its various states in the atmosphere, as snow and ice, and as liquid water, both above, and below ground, some of which is geothermal in nature. So these are just a selection of the principles of the Authority surrounding governance of freshwater, which I've picked out, because it reflects our feeling about freshwater.

Firstly, that freshwater is a taonga, a treasured and common resource vital to all our lives that must be respected, and managed for the benefit of all people, and natural ecosystems of New Zealand.

Secondly, that freshwater environments should be managed in an integrated long term, whole of catchment way, that recognises the complex interactions of the various components.

Thirdly, that decisions about the allocation of water must be made in the context of the whole catchment, region and ecosystem, encompassing the range of environments, flow regimes, land forms, and landscapes that exist there.

So the Authority whole-heartedly supports development of clear national policy of freshwater. Where there is insufficient information, or effects on water might be irreversible, we believe a precautionary principle should apply.

Any allocations granted should be based on evidence of environmental sustainability, fairness, and equity rather than the greatest economic gain, and shouldn't allow for the possibility of on-selling, and trade.

The Authority's principles on protection state that freshwater management should provide for the protection of all in-stream values and especially the connectivity of water bodies and their riparian margins, and the protection of indigenous biodiversity and natural character.

Secondly, priority should be given to New Zealand's unique indigenous flora and fauna. Indigenous aquatic species should, we feel, be present in natural abundance and they should be able to freely migrate up and

downstream to and from the sea, through river mouths, and in and out of lakes, if they're species that require to do this.

The role of rivers to provide severance for natural coastal processes should be recognised. Things like natural sedimentation occurring outside my kitchen window and when the flood waters receded there was some sediment left behind, with everybody's weed seeds from upstream in it.

Freshwater management should provide for the rehabilitation of degraded water bodies and their margins. And it's really important to prevent the establishment of new aquatic pests, and provide for the containment or elimination of existing ones.

The Authority's principles of sustainability state that freshwater management should ensure that any use of water resources, and their indigenous species, is ecologically sustainable and managed in a way that maintains potential for future generations.

We believed water should be saved for both swimming and food harvesting.

Freshwater management must address the cumulative effects of both abstract of uses and discharges and we feel pollutants should be reduced or eliminated at their source, rather than be cleaned up after environmental damage has already been done. And land uses creating diffuse source pollution should be monitored as stringently as point source discharges. Management should also acknowledge the changes brought about by natural processes including floods, draughts, and climate change. And any authorised abstraction should be time-limited, reviewable, and contain conditions that specify both quantity and timing.

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The Authority believes New Zealand needs a nationally consistent water quality and quantity monitoring network, with comprehensive coverage of flowing waters, lakes, and significant wetlands, capable of providing data that's compatible across all the regions. Collected data should be used for research and modelling to connect precipitation and river flows across all of New Zealand enabling greater understanding and prediction of flows and river behaviour.

And finally we need to expand capabilities so we have the appropriate hydrological skills available at regional level.

So there are some fundamental conflicts surrounding the use of freshwater relating to a series of dichotomies, perhaps the biggest issue being the use of natural water bodies, versus maintaining high water quality and enough water in the channel.

Even though access to water is commonly regarded as a basic human right, it can no longer be taken for granted. In fact access to water for industrial, horticultural, and agricultural use should be seen as a privilege, especially when it generates financial benefit to those users.

Most of these issues transcend the actual water bodies, the rivers and lakes where the water resides, and extend into the land management practises in the catchments, where water falls as rain or snow.

[9.20 am]

There are conflicts between in-stream and in-lake uses and extractive uses. Serious conflicts between the availability of free flowing rivers, and the demand for impoundments that store water. And of course between abstractive use of water and the need to leave some, or maybe most of it,

in the channel for biodiversity, boating, swimming, fishing, and aesthetic reasons. And not to forget having enough water in channel for adequate dilution if any impurities already in the water, to maintain sediment transport, and supplies of sediment to the coastline, and to maintain connectivity, in other words a pathway for fish, especially those that must migrate to and from the sea during their life cycle.

On the other side of the coin are the high impact abstractive uses including irrigations, supplying quotable supplies and the transport dilution of waste. In some areas just extracting enough water for nearby human communities threatens the integrity of rivers and there is a historical trend for uses providing economic benefit to prevail over any other uses. So we are hoping that the National Policy Statement for Freshwater can give some very clear guidance on how these conflicts and dichotomies can be resolved.

This is river bank erosion on the Waikahu stream where I live, and shows that in Gisborne district in particular, our biggest water quality issue is probably keeping the soil on the hills where it's meant to be, rather than any other issue. And that is the Motu Falls which is a bit north of where I live, which is a river - Motu River connected by a National Water Conservation order.

A bit more on connectivity because the Conservation Authority wishes me to emphasise the serious ecological issues that relate to connectivity, and by that we mean both spatial connectivity, in other words, a physical, accessible pathway the fish can migrate up and down, that's not blocked by insurmountable obstacles, drops, or dams. And temporal connectivity to ensure that rivers and streams that would naturally flow all year don't dry up and their mouths don't become blocked. Interference with the natural behaviour and migration of fish and other animals can in fact

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destroy aquatic biological communities. And interruption of sediment and gravel supplies to coastlines can precipitate serious coastal erosion.

Note especially that freshwater fish are not protected under the Wildlife Act 1953, although native fish are protected in National Parks or other conservation lands. There are some regulations to manage the harvest of eels, whitebait, smelt, and leprae that do form small fisheries, but for most species legal protection from being caught is not really an issue, it's land use and development that damage habitats that pose far greater threats to their survival.

According to Dr McDowell at the moment we recognise 38 native freshwater species, and at the moment because the total number is actually uncertain, given that we're still discovering new species, and seven new species have been described in the last seven years in fact, and most of them by him.

Over half of the presently known 38 species are considered threatened with extinction, and more rare species are of course yet to be described, so that makes halting declines in their population all the more urgent.

An interesting aspect of New Zealand's freshwater fish is that nearly all the species are found largely, if not exclusively, in river run habitats. And only three native species are primarily lake dwellers. At the risk of stating the obvious, freshwater fish will only be present where there is suitable habitat, but they won't always be present where there is suitable habitat. Water must be of appropriate quality which includes not being too warm or too saline, too shallow, or too fast or slow moving, as well as being clean enough. And almost half of our freshwater fish exhibit regularly timed migrations to and from the sea. This is known as diadromy and a

diadromous life cycle provides humans with whitebait when the juveniles of several species of native fish return upstream.

Eels are also well known for their impressive migrations. They make just one journey to spawning grounds many hundreds of kilometres away from New Zealand, when they are mature enough to breed, they then die, and it's their young return to New Zealand, plus there are two species that return to Eastern Australia, and Tasmania as well. The incredible navigation processes that allow eels to find their way to spawning grounds and enable the progeny to return to New Zealand are poorly understood. But there must be a particularly strong navigation and guidance system that enables them to all synchronise the time they reach the same general location, so far away. So what can be done to assist native fish?

In many cases (inaudible) populations have been increased by enhancing bank-side vegetation suitable for spawning. It's crucially important that migratory species are able to easily locate upstream habitats that are suitable for them. Human and land use impacts on river continuity must be prevented or mitigated, including river mouth closures, changes in flood frequency, and size, and increased turbidity because of land use and vegetation changes. High sediment loads inhibit feeding of fish because they can't see their prey and they can smother eggs.

When flow is reduced and shading vegetation removed, water temperature increases. At elevated temperature the water holds less oxygen so its life supporting capacity is reduced. And algae can potentially over-grow in water above 25 degrees because it's fatal to the snails that normally graze and keep the algae in check.

The non-diadromous, or non-migratory species of fish population are particularly hard hit if made locally extinct through pollution, draught,

predation by introduced species, or whatever, they will not be easily restored to that system since the juveniles obviously don't have the opportunity to re-enter from the sea. So it's not surprising that the non-migratory galaxiid's are the most serious endangered group of fish in New Zealand.

According to Dr McDowell, and others, many of the galaxiid's are well adapted and might even require the variable flow characteristics of New Zealand Rivers. For instance fluctuations in discharge appear to be essential for banded and short-jaw kokopu to spawn, and they provide opportunities for giant kokopu to move between habitats that are restricted at base flow. This is obviously an issue when rivers are impounded. And that in short-jaw kokopu are apparently restricted to forested streams probably because they need humid, riparian areas in which to lay their eggs.

Climate change and its possible impacts on rivers, especially those that discharge to the sea on the eastern side of New Zealand, will probably exacerbate these problems. Rainfall may be reduced, river levels will be down, but at the same time there will be more demand for water abstraction. Climate change will exacerbate the rainfall gradients that already exist, in other words it will be probably wetter on the West Coast and dryer on the East Coast. We need to look at alternative land uses, not putting on more and more water.

Coastal wetlands will become increasingly vulnerable to inundation as sea level rises and will only survive where the city is allowed to reclaim land unimpeded. There may be increased frequency of high intensity rainfall events and of course associated flooding and an increase in a westerly wind component. East Coast Hawkes Bay summer and autumn rainfall is

actually expected to increase, but the average annual rain falls will still be reduced.

Incidents of severe rain events might increase, reducing infiltration rates, increasing run-off, rain drop impact, and soil erosion generally, and I've already mentioned that temperature is critical for aquatic life, and because of that to hydro generation, since water can only be put back into the river if it less than 25 degrees C.

Communities may need alternative sources for increased storage or using groundwater or all of these for community supply in order to conserve base flows in rivers. One positive influence on water quality though may be the planting or restoration of carbon sink forests.

So the Authority advocates for very high levels of protection for the best wild and scenic rivers and stresses the importance of National Water Conservation orders to protect these. The place of Water Conservation orders and absolute protection of some waterways means that some rivers should be protected absolutely and should remain no take.

Impoundment of rivers results in a loss of free flowing water and in fact these are becoming an increasingly scarce natural resource in the rest of the world, as well as New Zealand.

So in conclusion, the Authority considers the overarching goals for a National Policy Statement for Freshwater must be that New Zealand's freshwater ecosystems contain abundant indigenous aquatic life, including eels, and whitebait. That some freshwater ecosystems are allowed to remain in their natural state, without development. And that water should be safe to swim in and gather food from, and the mauri of water should be respected. Any consumptive use of water should be allowed within the

limits of the above. Water should be managed nationally as a common, shared resource that should not be privatised, while in-channel values should be given far greater status and protection.

[9.30 am]

And that's all I have to say, but I may as well whip through the rest of my slides just to show you some things locally.

This restoration of wetland at Nicks Head Station, so this is a privately owned restoration project. They've planted about 1,200 native plants per hectare, thousands, upon thousands.

Clean lake water, with eels being dried.

I drive past this every day and I've watched with great interest as this forest is being removed and nothing is being put back in its place. It's just weeds and it's all slipping down now, that was shortly after the forest was removed.

We can swim in our river, if it's clean enough.

And this is a wetland on our own farm that we planted up to try to give it more wildlife and biodiversity value primarily.

Lake Waikaremoana.

Cracked up silt after a flood, all these photos are just out of my family photo album.

This is the Manganuku River in the middle of the Waiariki Gorge.

Lake Wanaka last week.

Irrigation of broccoli on the flats in Gisborne.

Flight over Benmore Dam.

Blue duck in the Taranaki Forest Park.

This is all restoration at our place.

That was the Taranaki River.

One of my relatives.

So, yeah I found that just flipping through, these pictures, the fish are from Bob McDowell, but all the others are just taken by me in the last few weeks. So for me personally freshwater has a huge influence on my life and that's why I feel so strongly about it, and that's why I'm on the Committee that considers freshwater on behalf of the Conservation Authority.

So thank you, that's the end.

CHAIR: Thank you very much. I found that very clear, and I think there might still be some questions for you if you'd agree.

MR PRIME: I have no questions.

MS VERNON: Thank you. I just I wonder if you - in the beginning of the Conservation Authority submission, it talks about the Gisborne District

Sustainable Hill Country and East Coast Forestry Projects. Is that where you have got something from the district council to do - I guess it is where you will be taking out hill country and putting in forestry?

MS SAVAGE: The funding is through the Ministry of Forestry, you might hear more about this, you might, I don't know. Kerry are you going to say something about that later? These guys are probably the experts on that. But there's a rule in the Gisborne Plan that says that certain land must have appropriate tree species, doesn't have to be forestry as such, it can be alternative species.

MS VERNON: Yes, okay. But you can still farm it?

MS SAVAGE: You can still farm it where it's suitable for farming. Some of that land is not suitable for farming, and those are the ones that are the target areas for restoration with trees.

MS VERNON: And there's (inaudible).

MS SAVAGE: Yes

MS VERNON: Because I found your presentation really interesting as a farmer yourself, and working in obviously what is highly vulnerable hill country. So I would appreciate your comment on two areas, because we've got Federated Farmers who are suggesting that the NPS should not be pre-empting anything about rules, that it all should be all about non-regulatory methods, voluntary methods, and I would appreciate your comment on how long term that is - how effective it would be long term. And the other comment I would appreciate since you've got, kind of two hats, is that Federated Farmers also have promoted that the NPS should not be talking about "effects of land use development", but really should

be talking about “effects of land use activities”, and I just wondered if you had an opinion on that as well.

MS SAVAGE: Well on the first, we’ve got a long history of land management in New Zealand with - the further back you go the fewer rules there were and that’s how we got into this mess in the first place. So I would say the view of the Authority would be that there’s certainly a place for rules, but on the other side, a requirement for incentives because you’re talking about a public good here as well as - and it’s so expensive and it’s just impossible to do that fencing in some places. We’ve been able to do it because we really wanted to do it and it was relatively easy. But my brother-in-law who has a huge farm, 10 times the size of ours, and is also highly motivated, he plants trees, he’s very environmental, he has kiwi two blocks, but he has streams that would be impossible to fence, it would tens of kilometres of fencing, so it’s not going to be a practical approach in a lot of places.

MS VERNON: So in other words it’s rules, plus - or it’s a balance, or - no, there’s a mix of rules and voluntary -

MS SAVAGE: A mix of rules and voluntary and compromise in some places where there’s probably another method that’s way more practical and cost effective.

MS VERNON: And just the comment about the NPS “effects of land use development” rather than “effects of land use activities”.

MS SAVAGE: What are they really meaning by that?

MS VERNON: Well that’s why I thought I’d value your comment. Is there a difference?

MS SAVAGE: Well it's all to do with land use intensification really isn't it, in a lot of aspects. But then I suppose if land use intensified and it's making more money you can then afford to do more conservation so I think it's probably not as cut and dried as what it first appears.

MS VERNON: Nothing ever is I don't think when it comes to water. Just, one final question, to do with the Authority again, I'm aware that a lot of the conservancies are doing new conservation management strategies and I just wonder what is the Authority promoting and we've got the list of your water principles, but what is coming through in the individual conservancies regarding water? Because they won't all be the same I guess.

MS SAVAGE: No they won't be because all the conservancies vary greatly and the so called new generation of conservation management strategies identify what are called places which are areas which have special requirements or special significance and a lot of those places would incorporate water bodies or rivers, all those values for which they are being protected and of course you're talking about areas where they are flowing through a protected forest anyway, so a lot of the issues would be to do with the potential for impoundment I suppose. Also invasive weeds, that type of thing would be more of an issue in those protected areas.

MS VERNON: Right, so in some conservancies for example if they - certain waters don't fall into those places with special significance, what happens to the conservancy?

MS SAVAGE: Once it leaves the boundary of the national park or whatever, it's out there in the regional council domain. And it seems a great pity where you've got very high quality water reaching the boundary of a national park

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or whatever and then from there to the sea, it's degraded when the conservation states kind of delivered it to that point in pristine condition, if you like.

MS VERNON: I just note that the Conservation Authority want geothermal areas covered in the NPS, but there's really only three regions that have geothermal waters and in fact one of the regions has 80% of what's left anyway and they have quite a comprehensive geothermal plan, so I just wondered why the Authority thought that it was necessary to have it in the NPS?

[9.40 am]

MS SAVAGE: These are more our principles concerning freshwater overall and those were the background to how we produced our submission and the reason for geothermal water being important is because of the unique organisms that live in there and I guess the potential for more exploitation in the future. That would be our concern about it.

MS VERNON: So you haven't seen the plan that was done by Environment Waikato?

MS SAVAGE: I haven't.

MS VERNON: Oh okay. Thank you. Thank you Sir.

CHAIR: Dr Harding?

DR HARDING: I just wanted to explore a couple of issues. In your original submission in a couple of places you talked about sort of national priorities and national directions and you talk about the need for national priority

setting of water bodies and also national consistent standards for monitoring etc. So we've had a number of submitters who have said that our regional councils should be doing this, that they should have the prerogative to set their own standards and set their own priorities, so do you have a view about how this could be incorporated into the actual NPS?

MS SAVAGE: Well I think one issue would be that some councils just don't have the resources or can't afford to do the type of tasks they might be asked to do, but because we have a NIWA scientist on the Conservation Authority, he was able to make it really clear to us how valuable nationally consistent data set would be to enable all sorts of modelling to be done in the future and so it was purely from a scientific point of view the best information you're going to get is obviously if everything is consistent. But we are mindful of the fact that it's probably not that easy to do that, because of the cost. And I mean there was an idea tossed around that maybe NIWA should be doing all the monitoring all over the country on behalf of everybody so that it is nationally consistent and that didn't make it into our submission, but it was something that we tossed around and couldn't really agree on. There was pros and cons either way.

DR HARDING: Okay. You've also made mention about water quality being of a swimmable and food harvesting, so again a number of submitters have questioned whether that's sort of partially related I think to Objective 3 in the draft at the present moment and some submitters again have questioned whether that's all freshwater resources or some. Does the authority have a -

MS SAVAGE: Well from a practical point of view it's obviously going to be some, but our feeling was that the swimmable standard would be a minimum and, where possible, it would be nice to aspire to a higher level, which

would be the food gathering. I mean we would ideally like to see all rivers and estuaries suitable for food gathering. There was a couple of members that even thought that all freshwater should be drinkable quality, so there you go. So we've taken the middle ground there with that I think.

DR HARDING: Okay. And a further point that you've alluded to a little bit when you talked about indigenous biodiversity values and those sort of things and their systems and we've had some people talk about the actual definition of freshwater resources, so at the present moment the definition of freshwater resources seems to focus on the water itself if you like, rather than necessarily the values of it. The riparian zone, the stream bed etc, and one or two submitters suggested that we could think about them as freshwater ecosystems, rather than resources.

MS SAVAGE: We would certainly support that. We can't see how you can just view water - because it is only one component of such an integrated system and I mean we'd go wider and say the whole catchment. Having Dr Bob McDowell on the Authority, he is so passionate about native fish and he's the expert on native fish and I mean once he retires I don't know who we are going to get this type of information from really. He's really impressed on us that this - because he's been working for such a long time, he must be in his 70's, he has seen such a decline, and he feels there's so much urgency to look after these things because they sort of fly below the radar for most people, most people are not really aware of them, but they are so important and so valuable and unique to New Zealand. Okay, they're not the Kakapo or whatever, but he's just made us so aware of that and we've just learnt so much from him about that and he's just a really valuable part of the committee that's considered this freshwater stuff and so we just really want to go into bat for the fishes really because we've had this opportunity and learned so much about them from him.

DR HARDING: Okay, thank you very much.

CHAIR: We found your submission very pertinent, as we expected to because of the structure as well as the set up of the Conservation Authority and so it's really been helpful for us to know what the Conservation Authority thinks about these various issues.

Earlier in your address you spoke about the use of freshwater for the transport and dilution of wastes and I got the impression, but I'm seeking to confirm that or not, is that acceptable to the Conservation Authority and if you talk about the standard that's to be aimed for, being that freshwater can continue to be a source of food, are there some waters that are for natural reasons not suitable as a source of food, perhaps mineralisation or other causes?

MS SAVAGE: Yeah, well waste is probably a bit of a broad - I mean you automatically think of human induced wastes and pollution, but there are things in waters that are there naturally if you like, sediment would be the obvious one, and with it the bacteria that is attached to sediment and that if you like is a natural process. I mean to avoid that you'd have to get rid of every single person and every single animal and bird in the whole of New Zealand. So some of those things that are naturally, if you like, found in the water, is a natural process, they are transported away in water and if water is slow flowing and stagnant well then those things will become a problem and they're not necessary a problem when the river is flowing along as it is meant to. And that erosion does occur naturally and on riverbanks quite apart from human exacerbated erosion as we experienced in Gisborne district.

CHAIR: Thank you. Then you were talking about the Authority's wish that the NPS give clear guidelines about how conflicts are to be resolved, and we understand that and we've heard many submitters seek something of the kind and other submitters say no, no, that can't be done because each proposal has to be considered on its own against the purpose of the RMA. Has the Authority given any consideration to that kind of argument?

MS SAVAGE: No, and we haven't considered how that might be done, but we did do quite a bit of research looking at freshwater policies and plans in other countries and on other rivers. We looked at some Canadian examples and quite a major component of their management of freshwater has been having procedures to resolve conflicts between people over water, because that's what's arisen as a result of trying to do something to protect the water. A natural consequence, I guess.

CHAIR: Yes.

MS SAVAGE: So we were alerted to that by reading about overseas examples.

CHAIR: Thank you. You referred, I think more prolifically, to carbon zinc forests in the climate change context, is there a limit to the extent to which land should be used for forests, do they abstract water themselves and does that mean that there's less water available for other activities?

MS SAVAGE: I wouldn't think so, not necessarily because our land was entirely forested to begin with and we know that the rivers flowed, but absolutely there is - it's got to be the right tree in the right place, there is certainly a limit to where you can put forests and the type of forest that should be put there. But I could talk about that all day.

CHAIR: Thank you and that would be interesting for us to listen to, but we have some other submitters as well. So you feel that there is a limit to the extent to which the land should be forested?

[9.50 am]

MS SAVAGE: Well eventually you're going to run out of land aren't you, so after that you're not going to be able to absorb any more carbon anyway.

CHAIR: We're well short of running out of land to plant forests on. Are there limits if we're still going to have people?

MS SAVAGE: In what sense do you mean?

CHAIR: Well is there a balancing between using New Zealand land for carbon sense and having a country that people can live in?

MS SAVAGE: I think that this idea of planting forests and particularly pine forests because if you want a fast grab of carbon, pine trees are going to do for you. But then long term with the harvesting cycle and so on, it's really not the long term answer. The Conservation Authority reckons that - we've talked about the potential, vast potential for carbon sequestration by improving the health of the forests that we've already got, the indigenous forests. I mean if we could get rid of possums tomorrow we'd be able to absorb all the carbon we're produce and then some. And the other area that hasn't really been looked at yet, but I think it will be soon, is carbon sequestration in the soil and not just soil under forest, but soil that is actually being cultivated and farmed.

Earlier this year there was the very first New Zealand soil carbon conferences held in this building and I attended that and they had

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incredible speakers from all over the world and there is vast potential for sequestration of carbon in the soil. It's quick, it's cheap, it helps the fertility of the soil, it's good for the farming and it solves the problem quicker than anything else. The blink of an eye compared to growing forest. Within 10 years you can improve carbon in soils 10 and 20% and beyond and they're talking huge, huge amounts, many tonnes per hectare so I think that's something that will be looked at soon, but at the moment measuring it and quantifying it is very technical and expensive.

CHAIR: Well of course we're very grateful to the Conservation Authority for its submission and for the clarity of it and we particularly value the freshwater principles that you've attached to your submission. Thank you for that as well. And of course, above all, we thank you for coming at such considerable inconvenience yourself to present it so clearly for us. Thank you.

MS SAVAGE: Thank you, my pleasure.

CHAIR: Now next on our list for this morning we are hoping to hear from Hawkes Bay Regional Council. Good morning and thank you very much for - now you've perhaps heard from what I said earlier that we don't have any expectation of any formality, that you may present what you have to say just as you choose. If you have any illustrations, that's quite satisfactory as well and then when you've completed presenting as you would like, then we may have some exchange of questions and answers that will help us further.

MS CODLIN: Good morning, my name is Helen Codlin. I'm a Group Manager of Strategic Development for the Hawkes Bay Regional Council.

Thank you for this opportunity to present our submission in person to you today. With me today is Andrew Newman, who is our Chief Executive of the Hawkes Bay Regional Council and Darryl Lew who is our Group Manager, Resource Management.

Our written submission was reasonably brief and at quite a high level and in summary while acknowledging that a National Policy Statement for freshwater management would provide a useful tool to support the management of freshwater resources in this region, we consider that the NPS as proposed is a missed opportunity. This missed opportunity is largely because the NPS focuses on a process and instructional approach, rather than an environmental outcome focused approach.

Our written submission acknowledges our support of the submission by Local Government New Zealand. We have looked carefully at the alternative NPS that was offered in its submission. While we would debate some aspects of the example objectives and policies, we are supportive of the move away from the prescriptive directive approach taken in the proposed NPS.

I will briefly outline the council's strategic approach to the key freshwater management issues in the Hawkes Bay region and then discuss how we consider an NPS would further assist us in the management of those issues.

We would like to refer to a model, and that's in Figure 1 overleaf, and this council uses to demonstrate how it approaches many of its issues, challenges and opportunities before us. It shows the investigation and information gathering stage to inform how particular issues could be addressed. We have used the terms influence, mediate, invest and instruct to reflect the range of interventions available to council and a various mix of interventions which may form an integrated solution.

We see that the proposed NPS in its current form is heavily loaded in the instruct intervention. Directing councils to use Regional Policy Statements and Regional Plans and District Plans to do what is already largely provided for or by the Resource Management Act. In terms of the model, we see an NPS as being an informing guiding document where the desired outcomes are clear, leaving it to councils to determine how best to give effect to it. Further, we see the NPS as an overarching document that factors desired outcomes while an NES, a National Environmental Standard should contain more directive and often numerical standards and supporting scientific guidelines.

Our submission is that the NPS as proposed strays into policy directions that are more appropriately contained in the Regional and District Plans, or more appropriately contained in an NES.

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This council is actively managing and responding to its freshwater management issues and is particularly looking at how it can invest for both economic and environmental outcomes.

The regional council has an operative Second Generation Regional Policy Statement and Regional Plan which is (inaudible) Resource Management Plan. This was proposed in April 2000 and became operative in August 2006. The plan is one of the few operative Regional Plans which contains a water management regime and framework that incorporates both an allocation limit and a minimum flow regime, albeit only for selective catchments. The management framework has been applied to a number of rivers that have been used for irrigation use in particular. We see that as a instruct intervention.

The RMP contains a policy for over-allocation situations. The policy sets out a number of approaches including having common expiry dates so that consents can be reviewed at the same time on a catchment groundwater basis to ensure holistic and consistent decision making, giving preference to existing takes over new takes where it can be demonstrated that the allocation is still required. Encouraging the establishment of user groups and seasonal and long term transfer of consent to promote efficient and effective use. And where over-allocation still exists, reducing allocation on a pro-rata basis and encouraging alternative water sources.

Since the plan was notified in 2000 new information has become available which indicates that the minimum flow methodology was perhaps not the most appropriate to use as it was based on trout habitats within North American river systems, rather than the braided rivers of Hawkes Bay and across New Zealand.

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The council has committed to complete a review of the minimum flow and allocation limits in time for the next round of consent application renewals. In this regard the council is also supportive in principle and closely monitoring developments of the National Environment Standards for ecological flows on water levels.

The council recognises water as being the regions key strategic issue and has already completed a pre-feasibility for predominantly off-stream water storage options in the fully allocated Tukituki River catchment. It is currently considering a decision whether to proceed to feasibility. This will be largely dependent on farming community partners who are prepared to contribute to a feasibility study. Pre-feasibility studies are also proceeding on the Ngataroro and Karamu River systems which are also at full allocation or over-allocated.

[10.00 am]

The council recognises that no matter how much of the allocated water is actually taken, it is critical to good water management. It is also critical for effective and efficient water use by irrigating. The council has, this year, established a water information services unit which will facilitate the collection and management of water use information using technologies such as telemetry and web based or text based data entry directly into the council's information system. For enabling the efficient compliance monitoring to occur, just as importantly this infrastructure and resulting information will allow for the allocated water to be more actively transferred between irrigators and to facilitate rostering and rationing to delay the rivers reaching minimum flow levels.

The council is also supporting irrigation user groups as part of this project. In addition, council will be undertaking a study to determine potential water

demand and availability on a regional and catchment basis. This will be based on different land use and climate change scenarios.

Among the territorial authorities, the Hastings District Council is also putting a lot of emphasis in developing water demand and conservation strategies.

In relation to water quality, the five year Hawkes Bay State of the Environment report to be released this week indicates that the region's water quality, on a regional scale, is acceptable, but there are some localised areas of concern. For example, the Tukituki River receives treated effluents from four townships in the central Hawkes Bay area, the two largest being Waipawa and Waipukurau. What consents were granted for Waipawa and Waipukurau discharges subject to a stage upgrade in 2014, there is much community concern about the discharges and the quality of the Tukituki River which has significant recreational and trout fishery value. In response, council has worked with the Central Hawkes Bay District Council to find alternative land based disposal solution. This will see the regional council purchasing land for effluent disposal into a commercial forestry operation. This investment is on a strict commercial basis using council's investment portfolio. The district council will invest in the waste water infrastructure and ongoing operational maintenance. This will be a significant win, win solution.

In summary, the proposed NPS as it currently stands may override the strategic priorities which are of economic, cultural and environmental benefit to the region. To focus on the instruct intervention only, it would mean that staff and financial resources are diverted from this integrated range of activities to the preparation of Regional Policy Statements and Regional and District Plans. I note in Ms Powell's report to the Board, paragraph 106, where she explains that the timeframe, which has the

impact of all regional councils working on plan documents at the same time, was to seek to encourage all regional councils to collaborate so that a degree of national consistency is achieved in the notified documents. In our view, achieving national consistency is the purpose and the role of the National Policy Statement.

The council supports the preparation of a National Policy Statement and believes it can usefully provide guidance and direction on a number of issues. The proposed NPS is outcome focused rather than prescriptive or instruction focused. The NPS has an opportunity to provide useful guidance and direction to this council and resource users alike by identifying water bodies of outstanding value and indicating how such water bodies should be managed to at least maintain that outstanding value. We understand considerable work has been undertaken by the Ministry for the Environment as part of (inaudible) programme of action, which will enable such water bodies to be listed.

Identifying water bodies of national importance, whether it be for cultural, tourism or energy potential reasons, to inform the application of section 6 matters on the RMA. Acknowledging that given the country's level of development and reliance on primary reduction, that some reduction in quality of a water bodies natural state is to be accepted and acceptable following a Part 2 assessment under the RMA.

Outlining a risk management framework that allows council to formally prioritise their resources for scientific investigation and policy development over timeframes that are achievable can be resourced and allow appropriately detailed work to take place. Outlining the relevant criteria to consider when making decisions where there is scientific uncertainty or lack of information about a resource. It is hoped that such an approach would allow councils to advance timely policy interventions without 100%

scientific certainty. It would also reduce potential litigation of plans and consent decisions. Prioritising water use for domestic municipal and animal drinking requirements while expecting water conservation and demand management strategies to be in place and expressly provided for allocation regime for specific users such as public water supply, irrigation or hydro electric generation, and for such allocations to be available for future demand from that use.

In its current form the NPS introduces a number of new concepts to be integrated with sustainable management of freshwater resources under the RMA. If these new concepts are to be obtained then it should be encumbered on upon central government to prepare a suite of guidance and practice notes clarifying and informing decision makers and resource users on concepts such as “notable value” and “demand management”.

This council’s heard that the NPS should be outcome focussed and that it should be aligned to and complimented by NES that define nationally consistent default standards and methodologies if specific local decision making processes are not contained within notified or regional and district plans. This approach is the basis for the ecological flows NES that could be mirrored in terms of water quality. There is also a need to ensure that the NPS aligns with various National Environmental Standards that are already in preparation. Outside the NPS there is also a need to refocus on the collection of national resource data set which can be used in various models and tools that are being developed with this council in assessing and managing the impacts of land use activities on freshwater resources.

In summary this council does not support this National Policy Statement in its current form and is supportive in principle of the Local Government New Zealand submission and the alternative approach proposed. I have outlined a number of key areas that the NPS could provide real guidance

to the councils in this region and I hope this is useful for the Board in developing its recommendations. Thank you for this opportunity and my colleagues and I are happy to answer any questions you may have.

CHAIR: Well thank you very much Ms Codlin. Are you, Mr Newman, wanting to add anything before we come to questions?

MR NEWMAN: No.

CHAIR: No, and Mr Lew? All right. Well then I'll start with Mr Prime.

MR PRIME: I've no questions, thank you sir.

CHAIR: Mrs Vernon.

MS VERNON: Thank you, and thank you for your submission and your presentation this morning. Can I just go to your original submission first of all. You won't be surprised that perhaps everybody has made the comment about the timeframes and the policies. But it has been suggested to us by outside agencies that in fact there should be or could be better links between a regional council and district council planning documents particularly with something like a National Policy Statement coming in then an RPS then the District Plans. And I guess the unitary authorities have to do that all the time because they do everything. So I've just wondered in your experience is there a chance for greater collaborative working together if its only on one area like freshwater management, I mean we're not talking about a whole plan we're talking about a part, and working together on something like the NPS. It's kind of outside the square but I mean everyone goes on about cost and they can't afford it and people should be working together and so I just wonder, is this an opportunity for people to work together smarter?

MS CODLIN: I think in this region in particular we've been through our ten year plan process, from that we are keen to identify where we have had shared

collaboration and our shared services in the past and currently, and I think that the current environment that we have in Hawkes Bay is conducive to that sort of collaboration in the future. The Hastings District Council, as I mentioned in here, has got a keen focus on developing water strategies in conjunction with the regional council and is looking at its conservation and water demand strategies. And it is reflected too in recent restructuring that there is a recognition that their territorial economic development is largely dependent on water and the management of water, so there is that acknowledgment that we do need to work more closely together.

MS VERNON: So do you think it's doable if the right frame of mind is there?

MS CODLIN: Absolutely.

[10.10 am]

MS VERNON: So now going on to your presentation this morning.

In paragraph 9, you talk about that you'd like to see the NPS as being informing and guiding rather than being directive. But what do we do, and leaving to councils to determine how best to give effect to it, but what do we here in actual fact councils determine that they want to give effect to it and they've got the reason of cost, so how do we get around that sort of issue?

MS CODLIN: I think there are a lot of good statements in the NPS but they just need to be lifted up at a higher level so rather than having those statements contained in a RPS or a Regional Plan that to focus on the nationally significant matters and bring them into a NPS. That, in effect, has effect immediately as opposed to waiting for those provisions to be contained in a RPS and a Regional Plan and the timeframes that go along with that. So and I guess in terms of councils who perhaps don't step up and implement the intent of an NPS that's where the plan effectiveness

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report possibly come into it in terms of demonstrating how the relevant national documents have been given effect to.

MS VERNON: So do you think that not the whole document but parts of the document, should be Board determined that are really important and need to be given effect to immediately that they could use now and going to forget the section 55.2(a). So that in some cases part of the NPS may be able to use that provision as a recommendation from the Board?

MS CODLIN: Yeah. 55(a) has just recently come into the fold -

MS VERNON: 55.2(a) is where in fact -

CHAIR: It's exactly what you were referring to whereby the NPS identifies certain policies that are automatically included in other instruments without going through the normal consultative process. It's obviously got to be used with care but we understand your point that there are some or may be some deserve that particular identification.

MR LEW: Can I comment?

CHAIR: Please.

MR LEW: That section has been talked about at some length regarding the NES for Water Measuring Devices because it would seem silly to have a whole set of standards that have to be then put in to resource consents and various other things and so I think they're calling it "the demon provisions" but yes that would make absolute sense I think to go and that would cut down significant cost. And would possibly also release some litigation around the RPS as well.

MS VERNON: I'm sure it might. I'm interested that you're, on now paragraph 11 and 14, they're both connected really. Your Second Generation Regional Policy Statement/Regional Plan I take it is all about water allocation and not water quality, is that correct?

MS CODLIN: No it's a Regional Plan which covers all of the resources, air quality, land, water.

MS VERNON: So is it a little bit like Horizons "One Plan" then is it?

MS CODLIN: Yes

MS VERNON: Okay, thank you. And what have you - you say that the minimum low flow methodology is perhaps not the most appropriate thing, what do you think it might be? I mean where are you heading with the new research on this?

MR LEW: I think in the 90's when that plan was developed, obviously science moves on since then and I'm sure Dr Harding knows about those issues (inaudible). But I think at the same time because of the value of water and the contentions surrounding it, let alone treaty settlements and all those other sorts of things, the robustness of the Part 2 assessment comes increasingly under the spotlight of which science is only one input obviously into a Part 2. So the councils developed a second water strategy and it's looking at - well, it is pumping in 850 thousand to a million dollars extra funding each year for the next few years to try and do the extra science that is required while at the same time gain increasing knowledge about Part 2 matters particularly regarding the economic value of water, the cultural value of water and social matters as well. With a view by 2013, 2015 having a notified plan at least with hopefully minimum flows and allocation and that's very accepted by the community.

MS VERNON: Just curious by your statement in paragraph 21 you talk about, and I'm going back to water quality again we've had a real balance from submissions on water quality and allocation as you're probably familiar with and appreciate. But what do you mean by that, "On a regional scale,

a water quality is acceptable.” I just wonder if you’d like to talk a little bit more about - and what are the localised areas of concern?

MR LEW: We’ve just recently released our five yearly state environment report which this is based on. It’s a summary document of a big stack of science reports which have all been independently peer reviewed by external scientists in the organisation. And those reports say that in the main, the water quality of rivers like the Mohaka and the conservation as you might expect. The Wairoa River headwaters (inaudible) and even parts of the (inaudible) are of very high quality as you would expect from a gravel bed river system. However there are discharges and effects that are going on which need to be dealt with but at a region wide scale we’re not seeing over all collapse of the river systems and major trends downwards and a whole lot of water quality animal rights.

MS VERNON: I guess I was just getting at what is your definition of “acceptable in water quality”? There must be some kind of -

MR LEW: I guess what I’m talking about is more scientific answer to your question, actually rather than perhaps a Part 2 answer. But I think if I could say this its that -

MS VERNON: I don’t mind the scientific, I mean how many bugs or - I mean what was what did you use what was the criteria you used that they defined as being acceptable?

MR LEW: Oh in the main we default back to Ansett in terms of measuring against.

MS VERNON: Thank you.

MR LEW: But if I could just add to that, the debates around water allocation across New Zealand are reasonably well understood that you do your environmental work should be fish habitats or whatever your in-stream

objectives are and you go through quite a rigorous Part 2 assessment usually through the courts and outcrops and answer. A lot of the debates around the water quality aren't very mature, if I can use that word. I mean, there is a lot of emotion in it, probably even more so than the water allocation frameworks. What I think has been lacking is you've got my answer, we default back to Ansett which is the scientific answer. I think in the next ten years, perhaps driven by this NPS and the notable value notion and that sort of thing that a much more, I guess, mature approach of having the science on the table about what the current status of a river water quality and what it could be. And then overlaying a much more rigorous Part 2 assessment is going to be needed. And that will result in rivers that the community will accept some level of degradation to its value.

MS VERNON: And I guess that relates quite nicely to your comment on page 5 in 26(c) where in actual fact you make the comment that bio-reduction in water quality from its natural state is to be expected and acceptable. But you'd have to agree, I don't think that the discussions quite there yet is it?

MR LEW: No, that's what I'm - my word mature, maturity in the debate is what I mean.

[10.20 am]

MS VERNON: Thank you very much.

MR LEW: There's a lot of emotion in it.

CHAIR: Dr Harding?

DR HARDING: So I'm actually going to follow on on that point. Obviously, I mean we've had a lot of submitters who have come passed us and said that they see that, nationwide, there are serious issues with degradation in water quality and the current draft NPS calls for an improvement. And

you're suggesting that your council doesn't believe that should be a national priority?

MS CODLIN: I think it's a question of scale and priority in terms of where we focus our resources. The general state of an NPS from a national point of view I mean, we do have a lot of bio-production and there is actually - it does have effects on, in general, the environment and what expectation in terms of is achieving swimmable a realistic goal. So I think it's for us it's been able to prioritise our (inaudible) energies, we do have some hot pot areas for water quality, Tukituki was one and our approach to - the example I gave there regarding - most of the discharges is our response in part to that. The other area key area is in the headwaters of the Mohaka Tararua River which the water quality there is being impacted to some degree by the land use activities happening in that particular catchment. But I think there needs to be a reputable river (inaudible) the argument that some acknowledgement that with primary production there won't be back to pristine normal areas.

MR NEWMAN: I'll add, if you looked at all the water bodies across the region then it's going to be braided realistically. The water bodies like the Mohaka that come through largely forest encatchments. Those sorts of things have conservation orders, clearly there's a standard that needs to be achieved there and improved. But there will be other improvement bodies within the region and there are and have been for over 150 years that are flowing through rural and farm catchments. And so I guess the point is that not every river is the same, we're going to work the process across the rivers, acknowledging the historical state and I am acknowledging the types of land use activities within and understanding how that matrix works. And the second point I'd make, which I will point out, is that in using the Tukituki case we effectively invested the capital in the order of about 5 million dollars so far related to upgrading that river system in terms of water quality issues. We're also looking at water

storage schemes that are in the order of 200 million dollars worth of capital investment potentially. And those sorts of things will drive both potentially increased agricultural use and intensity but at the same time we thoroughly acknowledge that dealing with water quality issues arising from intensity means that some of the capital needs to be directed to things that will deal with those issues as well.

So the point I would like to make, I guess to reinforce is that, and I'll go back and hit the diagram is that a regulatory approach is only one tool in the army of tools that you need to deal with these issues. And in our particular case in this region we're looking at significant capital investment. So I wouldn't like you to sort of go away with the impression that we don't take this seriously, we take it extremely seriously.

DR HARDING: Okay good, thank you. In your original submission you, in passing, made a reference to natural degrading water rights which has come up a couple of times. Do you have examples of what, in your region, of the areas you consider to be naturally degraded?

MR LEW: When you say naturally degraded do you mean from just the base geology and thing like that or do you mean?

DR HARDING: Well I guess that's what suggestion is that they're not anthropogenically degradable.

MR LEW: I've spent most of my career at Otago and there are areas in Otago where there's papers from the University of Otago geology department and science departments from Townsend that demonstrates that you can get poor water quality as a result of - off your base geology.

DR HARDING: Sure, I was just wondering whether you had any examples that you know of.

MR LEW: Not that I know of.

DR HARDING: Okay. And in today's submission you mentioned again in passing a little bit about groundwater particularly. So do you have a good feel for the groundwater resources in your region, have you done quite a bit of work on that?

MR LEW: I think the answer would be that for decades, going right back to some esteemed groundwater hydrologists like Hugh Ford under DSIR and Ministry of Works days. There's been an awful lot of work typically on the Heretaunga planes with the groundwater system underneath the planes. Less in the (inaudible) basin which is a growing economic area, potentially for this council water dependant of course. What hasn't been done and councils part of our strategic water studies investment is bringing forward fully transient groundwater models and we've done a steady state. I think my comment would be that there's been a huge amount of work that hasn't transmitted in the past into the policy and rule frame from the regional plan and that's what needs to happen. I think all our focus and energy and cost - because these transient groundwater models are incredibly complex beasts and very data hungry and things like that.

The Heretaunga planes and the (inaudible) consumes all of our time, however I'm very mindful of a lot of other smaller aquifers that are not associated with those two in different parts of the region. Again if I can just go back to my Otago experience, we counted up approximately 40 aquifers that we knew of, a lot of them are small inland basins in Central Otago. To do transient models and do all the science in those is pretty difficult and that's why I was very heartened to see the NES for ecological flows and the defaults scenarios that are there albeit quite conservative but I think that's correct. And that gives you a framework to work to which I think in our submission we've sort of saying that we like and submitted in support of the NES ecological flows and how a cascade

of NPS down to that end use could go. We don't see the mirroring of that NPS/NES on the water quality side and it think that's some of the problems that people are having with the NPS in its current form.

DR HARDING: Also in today's submission on page 5, number 26 you talk about areas that you think that the NPS could provide a useful guidance and direction and the Part A about water bodies and outstanding value and you indicate that - and I understand that the MfE is doing some work on this. So do you are you anticipating then that the identification of things like water bodies of outstanding value would be done at a national level rather than needing to be done at a regional level as the NPS requires at the moment?

MS CODLIN: With collaboration I think it is to identify the nationally outstanding values with the outstanding national values and it may only be a handful but it's good to actually put those up there and just identify them and to care about them rather than have a list of criteria that we leave it up to the regional councils to develop.

CHAIR: So would you nominate the Mohaka?

MS CODLIN: I think that would be one of the (inaudible), yes.

CHAIR: Yes.

MS CODLIN: And it's been clear on that, so it says there.

CHAIR: Are there any others in the region that would qualify under you're A and B?

MS CODLIN: Under national (inaudible) probably not, but there could be others.

[10.30 am]

MR LEW: I think if that isn't done then, I mean, the hearings and various other things, the 104's and the arguments are just going to go on. We just considered some very contentious consents in the Mohaka area. And there's an incredible amount of contention around that and a resource consent hearing it comes down to a 104 and you have days and days of consent hearings and evidence without any clear direction and we think they're matters of national importance and they should be treated as such. And that's really looking at the NPS to give us those high order objectives and policies.

CHAIR: The WCA doesn't do it?

MR LEW: No it's quite an interesting (inaudible). The water conservation order is actually put in place for hydro to or get around the threat of hydro development in the catchment. It doesn't handle water quality very well and that came as a bit of a surprise to Fish and Game who I think were - or the proponents of the original conservation order. And when they looked at it and took some legal advice, that advice was yes it's really aimed at damming and diversions not at water quality.

DR HARDING: So at the other end of the spectrum the current draft talks about degraded freshwater resources and I guess you've already indicated that you think that perhaps you don't have very many of those at the moment, maybe just one or two systems where there's some problems. If the graded freshwater resource was idea was retained would you be looking for some sort of national guidance on criteria of what degraded might be or would you be wanting to find that yourself?

MS CODLIN: You're not talking about naturally degraded systems?

DR HARDING: No I'm not talking about naturally degrading.

MR LEW: I think that if I come back to my original point is that what is degraded and what is an acceptable amount of degradation and it's that whole

(inaudible) argument actually. I think the Part 2 matters and arguments and discussions around that are best handled at a local level. But from the fundamental science input to that discussion there's not enough being made or used from the Ansett guidelines people are using default values for that actually following a lot of the process that you can in those guidelines to inform that debate, that was my first comment. The second comment is I referred to the NES for ecological flows and the supporting guideline document that actually goes with that NES. And again I think from a scientific point of view having that sort of approach mirrored on the water quality side would be absolutely beneficial to this process. Because I think this NPS is trying to do the job of an NPS and NES together and I do support the NES for ecological proposed type of approach with that supporting guideline documentation. And I think all of that together would enable, if the degraded river stays in the NPS, would enable regional councils to have tools in its armoury to actually handle that better than they are doing at the moment.

DR HARDING: Okay. Thank you, that's all my questions.

CHAIR: You contemplate the possibility that there will be some over-allocation in the region. Which implies that there could be a better regime of allocation and you say that your own policy is to get preference to existing takes over new takes if the existing take is still required. And I don't understand that that necessarily provides a rational basis for allocation perhaps I've misunderstood?

MR NEWMAN: You've asked a particularly pertinent question I think perhaps. I'll defer a wee bit to Darryl in terms of history around our Regional Resource Management Plan.

CHAIR: Well, by all means if the history's important.

MR NEWMAN: No, not necessarily

CHAIR: We're looking forward aren't we?

MR NEWMAN: It's important as a point in time and that alone. In terms of, I guess, the councils strategic water process or strategy and as that evolves there a number of inputs to that process including what Darryl has referred to as the assessment of cultural values, economic values, environmental values and so forth. Some foresight work and some understanding about how this region is going to be shaped, at least some view of some of those drivers. And in that process, the strategic process that's got foresight in it you're inevitably going to want to be able to have some tools that enable some degree of flexibility around what is the best value, most high value use of water. And I use that in a broad sense. So would we want to stay there in a perfect world with first in, first served existing use when there's something better? The answers probably no. But I think we're only part way through that journey of understanding more dynamically what we want to. So that helps.

CHAIR: So when an existing take is authorised by a consent that runs its term then application's made for replacement consent, is it automatically assumed that that will be granted or is it automatically assumed that it will have to find its way against the section 5 tests?

MR LEW: No definitely not, I assume it's been granted because one of the things - I almost sound like a broken record with applicants lately is it's not property right or a chattel and you don't have absolute right on renewals to that (inaudible). I think that clause was in our plan before that 205 amendment and 104.2(a) I think it is, or 2(b) which says that existing sunk investments should be recognised as new consents because otherwise on a whole catchment expiry all our catchments expire, or our catchments expire the same day and inevitably we get applications for new consents and for increases in takes as well. So I think that was just a way of, I guess, giving some greater primacy to existing people but at the

same time the planning also talks about claw back and has a policy which says that if the water is over-allocated as per the allocation limit a mechanism to consider is a pro rata call back across that.

CHAIR: That's clear, thank you. The other thing I wanted to ask that perhaps runs the risk of being described as immature or emotional but I do want to explore the issue. Because it seemed that many submitters are urging that there should be a national policy of getting out of using freshwater bodies for the transport and dilution of waste. Now of course the Board is in no way criticising what your council has done nor criticising your council for anything it may not have done. We're looking at it from a national point of view. Do you say that it's wrong to have a national ambition to phase out use of natural freshwater for the disposal and dilution of wastes?

[10.40 am]

MR NEWMAN: We deal with point source discharge, clearly the quicker that's out of the system the better really, and I guess you see the evidence of what we're doing we're focusing on that quite considerably. As I'm sure you've heard this many times, diffuse source discharge is an entirely different challenge.

CHAIR: Of course.

MR NEWMAN: And I did hear the previous speaker and I was about to tell you how many - if we were to fence the riparian strips within Hawkes Bay every water body within the region of 700 thousand kilometres of fence would be required to do it. So what I'm really using that as an example of is the scale of the issue and in simple terms it's - well it's not simple, it's quite complex in actually fact. And I think ultimately improving bio-management practice is fundamental to improving the diffuse source discharge. Now every new trend that strips out litre of water quarts is lost investment to the farmers so at the end of the day it's a waste on the

system and in a sense the economical incentive to correct that behaviour in many ways would drive quicker performance improvement and performance around the diffuse source discharge issue. To the extent that an NPS I guess sets up some principles targets, and so, on the rate. But I think the instruments in a way of which we attack those things systematically and dynamically over time are quite complex and dynamic. And therein lies the challenge and I think embedded in our whole approach here is that we're taking an integrated and dynamic approach to deal these things.

CHAIR: And as a nation is it a challenge we should front up to over time?

MR NEWMAN: Yeah it is, it is but I also think there is a contextual debate to be had as well it think. And I wonder at times in the New Zealand context whether that contextual debate around water quality is really being conducted - has been mature I guess.

CHAIR: Well thank you all of you thank you very much for your submission. Thank you for coming today, as well as preparing this document and in taking part in some exchange as well which has helped us a lot. We're going to take a break and we'll complete with that and perhaps we can look forward to hearing form the Gisbourne District Council.

ADJOURNED [10.42 am]

RESUMED [11.15 am]

Audio file: dpm 0143

CHAIR: Thank you. Good morning.

MR HUDSON: Good morning you've obviously done that before you got it spot on. Gisborne District Council staff would like to thank the Board for this opportunity to speak to Gisborne District Councils submission on the National Policy Statement on Freshwater Management. I thank Mr Rice for his help in the last week or so in getting our PowerPoint display organised for us.

CHAIR: Thank you.

MR HUDSON: I'd just like to introduce the staff we have who've come down from Gisborne this morning. First is Dennis Crone who operates in the area of water resources, resource consents, so environment monitoring and his assistant Paul Murphy who is also in the area of water resources. We have three staff to cover all water discharge coastal type permits in our district, it's them, they cover that. Keriana Wilcox is a Senior Planner in Natural Environmental Resource Policy, her and I are in the same team and colleagues in that field and our role is developing regional planning documents. And our submission is built very much around the issues occurring in Gisborne at the moment.

So our submission content is how we envisage district council to see these national issues that are with us, how Gisborne sees it. And the features of the Gisborne region that we believe make us quite unique. How we are currently managing freshwater in our region, right or wrongly, how we are doing that. We have I think a unique way of dealing with it, it's perhaps getting a little outdated and the NPS and NES documents that have come out in the last little while are making us have quite a think

about where we're actually heading in this whole subject. And finally the last point of our submission we'd like to speak to is the implications of the NPS for the Gisborne region.

The national issues as we see them are - there are two major issues that are driving the NPS throughout New Zealand and these are issues with regard to over allocation of freshwater and declining water quality.

Now we believe that in our region we have sustainable allocation of freshwater go into a little bit more detail further on. We do have one catchment where we may have some allocation issues but generally overall the trend on allocation in our region is that we are sustainably allocating our resource. It's not on totally scientific basis and we'll bring that up a little further down the track. We also believe that our water quality and general trend is not declining, we monitor our water courses quite carefully. Ms Savage mentioned earlier on this morning, put together a state of the environment report on a two year basis. And there are no real trends of any real decline in fact what we are seeing as the forestation projects are taking over and that's something that commercial community asked about was sustainable hill jumping this morning and we'd like to comment on that a little later on if that's okay. We are seeing more land into trees, over 40 years we've seen 20% of our area re-forested and coming along with that we see enhanced ability but we also see reductions in the likes of stock numbers and the associated fertiliser inputs. And overall we see an increase in land stability overall in the district.

In terms of water quality, for those reasons as well as, we're not seeing the intensification in farming we're seeing elsewhere in New Zealand. We have got those land rehabilitation proposals in place and they are working quite well. Two years ago we had three dairy farms in our whole region, we now have five. The issue we are having with the dairy industry is more to do with perhaps run off type activity from the Bay of Plenty we

are getting some issues in the Motu catchment and that's something that Dennis and Paul are addressing at the moment. But other than that the dairy industry has not really had a focus in the Gisborne area. We have just studied five farms and none of them actually have takes for water, they are all basically on soil types that grow reasonable pasture and its other feed inputs rather than irrigation pasture.

[11.20 am]

So overall we have a situation where our water quality is not being impacted by intensification we are having these other steps which are really our priority for the Gisborne area in terms of enhancing land stability.

The Gisborne region, what we've sectorised out there is the Eastern part from the red line our main catchments are the Waipaoa which is obviously this catchment through here. And the Waipu there is a branch of the (inaudible) and they are the only two catchments in our region that have water takes. Associated area of Poverty Bay flats down here.

The other catchments that we're interested in we may talk a little further on down the track is the Motu which I mentioned earlier on which is an unusual catchment in that it goes from pastoral farmland back into bush. It comes right through the city river into the Bay of Plenty and it's a popular trout fishery in our region.

The only other catchments we have that have populations of trout are the Waitahaia which is a tributary of the Waipu, that's a local population trout. The water conditions down through here are so high in sediment that they don't sustain trout. And the other catchment is the Hangaroa over in this area here which is a tributary of the Wairoa River and there's also a trout population in the Hangaroa that is - might go through to the Hawkes Bay District.

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We have in our whole region only 11% of arable land, predominantly around Gisborne, Poverty Bay and pockets on the Waipu River. Very little arable land along the northern boundary and so potential for water demand in terms of arable land uses is limited.

We have a very extensive hill country which predominantly up until the 1960's totally dominated by farming activity. We cleared a large proportion of our district origin in a very short time late 1890's through to middle of last century. We had some devastating results in terms of erosion our forefathers didn't realise was going to occur at the time, something we've been grappling with ever since. And so we have this move towards quite extensive areas of forestry in the Gisborne region as well. Up to 20% of our region now is being replanted in forestry.

Rainfall. We are an Eastern District of the North Island New Zealand and it's usually associated with dry climates. Gisborne itself receives approximately 1000 millimetres of rainfall a year but the Western hill country through here and some of the high rainfalls in the North Island is up around 2500 millimetres. So as a result these rivers through here respond very rapidly to that rainfall and we have some very reliable flows in our water courses for most of the year. Gisborne and our coastal strip through here do receive drier summers the distribution of rainfall is very much guided by autumn and summer rainfalls and so yes we do run into times when we have dry weather through here. These more coastal catchments do get very dry and get very little amounts of water in there, it's the issue with the Te Ara river as well, it's very much toward the East of our district and it's the city water supply comes through that catchment as well. Overall our district responds very well to rainfall in the Western hill country, usually for most months of the year.

Our soil types in the district, we have grey wacky along the Western boundary, most of our district is mud stones and they have a high metric

fertility because of the clay contents in them. And so that has been very attractive in terms of pastoral farming but coming along the natural fertility has been this quite large erosion problem that we've had throughout our region.

These are hill countries, the photo on the right hasn't come out particularly well. You can see our focus has been on controlling erosion problem in the Gisborne district and you can see planting throughout this property here. This property here is very, very closely planted with trees, livestock through grazing, very high fertility soils, high clay contents. There was a time in the 80's when we had difficult economic times when people would rather or found it more of a focus to plant erosion trees, erosion control trees than actually put on fertiliser, that meant they could go a couple of years without fertiliser but believe they couldn't go without this. And so the erosion control has been the focus of our region and in our council.

As you came up earlier on, we're a unitary authority so we have both district and regional functions. We have an operative RPS and we have several regional plans we have no water allocation plan as such and we are totally reliant on a transition provisions from the times the East Cape Catchment Board where we had a period of kiwifruit blooming and we put together at the time some very practical ways of dealing with water allocation. And one of them that came up at the time was everyone was required to have a meter at the time, it became part and parcel of the process since the mid 1980's every water permit in the Gisborne district has had a requirement for a water meter. And that, we believe, has been a very useful tool addressing what amount of water is being used and where we stand in terms of allocation.

We have a very comprehensive data base of water quality and flow information in terms of our water resources and that's helped us

significantly in terms of how we've dealt with managing what work permits we've had.

Our focus in terms of regional planning has been on an RPS Coastal Plan sorted out and a significant focus on weighing management with the philosophy the Gisborne region is being we would rather have our hills stable than have this ongoing erosion problem. We could actually do something with the land if it was stabilised and there are other things we need to move onto including some of the water management and perhaps land management issues in terms of contamination of the water courses.

Water quality at the moment in our region is dealt with in our discharges plan, something Kiwiana's have got through to an office state quite recently. We actually deal with point sources quite well in our region we have a limited number of them, most of our issues are to do with trade waste issues within the city and a coastal outfall. It's a situation that we went from having some very difficult times within earlier on. In this decade, in terms of the situation now, we've turned that whole situation around about how our effort in terms of where Paul and Dennis was at and at the territorial side of our council to be very much on sorting out that waste water issue.

As Mr Newman from the Hawkes Bay Regional council mentioned earlier on, we, like every other council, have grappled with the diffuse type issues. But we don't have the intensification issues of elsewhere and it's something that perhaps we're going to be a follower on and see how we progress that over time.

Our region has only 150 water permit takes in the whole area and only 30 of these are for surface water from the Wairoa (ph) river and the Te Ari (ph) catchment on the Wairoa River. We have both surface and groundwater takes and the groundwater is very much fed by ground from our river system. So we have a situation where the flood on the river is

critical for our groundwater for all but one of our aquifers. As I mentioned earlier all of our takes are metered we notified all applications and since the time of the RMA we've had a minimal number of submissions we've had very few hearings. And the metering issue and the lack of pressure on the water resource are critical in that approach that we've we do notify them all and we get very little response from any party over where we're at in terms of allocation.

We've had a policy of only issuing consents for a duration of five years that's worked particularly well, that's coming under a bit of heat at the moment because several parties are saying it's not giving us long enough in terms of investment infrastructure, (inaudible), that sort of issues. It's actually worked very well for us because we use it as an opportunity to review someone's consent every five years. It certainly keeps all the permit holders very much in line with the conditions on their consents as Mr Lew mentioned, from Hawkes Bay regional council this morning, it's not a given that you will get that consent back but the allocation situation we're in, we generally do not decline consents. Because we're rather over-allocated. We've got restrictions based on practical measures and its one of the points that Louise Savage brought up this morning, one of the things we do have restrictions on is making sure our river mouth the, Waipa river remains open and the other one is a practical measure and something we have quite a bit of agreement from NIWA in recent times as you can see we're progressing some of the ecological flow with information, is preventing saltwater entering our aquifers or moving up our water courses from too much water being taken from the river or from groundwater.

[11.30 am]

The Waipa catchment, so it's this area through here and all our takes are confined to that area there on the Poverty Bay slats. We do have a couple

of small catchments from the bottom, it actually flows from a fairly dry area and we keep very careful tabs on it but most of our takes are used on the Poverty Bay flats. As I mentioned earlier, the Waipa River rises in the Western hill country so we can have quite a dry spell in Gisborne and we still have quite a good flow on the river to utilise. This is the recharge issue for our aquifers from those gravels and I'll get on to - we'll be simpler with our major aquifer in a couple of minutes.

Our takes are mainly seasonal, we have a series of takes where people are only taking water for perhaps three months of the year but we do allocate water for a full year. One of the issues that Paul and Dennis ran into in the year just gone, a very dry summer in Gisborne was early. In December we got quite hot, quite dry and not everyone used the water permits they have. And even with the National Environmental Standard at 80% of new annual low flow we would have only had restrictions on our big river, on the Waipaoa for about a week to February. So that's the sort of use we're getting out of the river and it also reflects the reliability of rainfall inland. This is the most utilised aquifer we have in the Gisborne district, this is the Mark Kauri aquifer which is located under Poverty Bay flats, it's responded very much from the gravels in the river from mid way out Poverty Bay flats. This is a plot showing recharge over years from the last decade and as you can see we are showing just very seasonal changes and this doesn't reflect the seasons when we take water, we take volumes of water out of that for vegetable growing but we see this trend over time of slight increase. We were concerned about that in (inaudible) we were getting decline because we had a lot of kiwifruit in the district at the time, and that boon was over quite quickly and so we've seen this situation of the improvements in the levels of our aquifer. That kiwifruit boon in the 1980's actually put a lot of pressure on the Local Catchment Board at the time. There were a number of factors that came out of that including the water metering that's (inaudible) ever since.

This is just a range of the crops we have growing in the Gisborne district, this is broccoli we have very large areas of freehold and lease vegetable growing in Gisborne. That crop there you would see it with an intensive application of water, say, today but then they'll move on to the next block of broccoli and we may not see them back at all and would only see them back in that block there if it turns dry. The water holding capacity of our source here because of the high clay content is so high that we do not see them watering crops such as broccoli that often. It's a one-off strategic watering and then they move on to the next block. This is a vineyard in the Gisborne district, a large area of our district is in vines, we have got some coming out at the moment because of the economic situation we're in. No water permits at all for growing grapes in the Gisborne district, quite unlike other parts of New Zealand but that just reflects the high water holding capacity of our soils. We come down to here, this is young vegetable seedlings. Once again that is a strategic watering of them on occasions but certainly not all the time. And you'll go past and see a lot of water going on there perhaps today but unless we get a lot of Northwest wind the water holding capacity will sustain that crop for some time. Citrus, some are watered some are not and it's our climate, it's unlikely that people require irrigation for citrus crops. Kiwifruit certainly require water in our region, if we saw an upsurge in kiwifruit again we would be getting quite concerned perhaps and relook at our allocations. Kiwifruit actually put us in a lot of pressure in 1980's, if we got back to a large area of kiwifruit again the difficult our council has is we have no total allocation scientifically worked out and we had an indication at the time kiwifruit boom just what we thought that allocation was, that we would get to a certain stage in terms of total allocation when we don't really know and we could be challenged quite heavily.

And that's where we're at at the moment in terms of trying to develop a water plan is to organise where we should set that allocation and where we should be looking at minimum flows.

The impacts, we have the situation in the Gisborne area where we have higher natural concentrations of sediment, even prior to the bush being cleared in the Gisborne district we would have had high sediment loadings. Poverty Bay flats has formed quite rapidly and that's a result of the severe erosion we've had over long periods of time prior to (inaudible) erosion now. And so one of the effects we are always really mindful of is maybe the perception's out there that we can get sediment concentrations lower to what it actually naturally and feasible. We need to get lower than where we're at at the moment and that has been an emphasis in our (inaudible) in terms of tree planting, forestation in the last few years.

Riparian plantings, you heard from Mr Newman this morning and along a bit further on the extent we haven't got an area as big as Hawkes Bay but I presume we would have a significant area of riparian requirements and we plant out all the water courses. We also have an issue with regard to the extent and the size of catchments we would need to extend to (inaudible). The sources of debris, incidentally we've got a lot of debris coming from - even within the state forest park on our western boundary, a lot of material coming out of there.

We have a lot of large eroded scars, Taradale slip, those sorts of sites. We have any number of those in our region which we are trying to minimise the extent and the possibility of us - eroding scars and that, so they are sources of debris. We are reducing the amount of sediment we have in our district I don't think it's feasible that we will say that we are going to have pristine water conditions particularly during rainfall we can minimise it during fine weather conditions but the natural sediment concentrations are such that it's a very poor water.

The takes are news, all our takes are for cropping, we don't have any form for pasture on the 1K line situation on a fairly small area of (inaudible) flats and that person has not yet exercised that consent because it's been very

challenging economically to do so, it just has not been worth pumping costs to create grass to feed (inaudible). So we don't have the water quality effects from the intensification in terms of takes and use, all water takes are for growing crops.

The perceptions we feel we really need to be careful with here and where the NPS can help us are these ones with regard to natural sediment loads. We're doing everything we can to stabilise our hill country and get those sediment loads down to as low a levels as possible but overall it's a very tall order to control erosion scars that are so far gone beyond where they can be repaired. We're trying to minimise those but we will always get sediment in some form in our water pressures. Solving of those diffuse issues is something that I think needs to be looked at nationally rather than in our region particularly, with intensification occurring elsewhere rather than this district. And the extent of riparian plantings.

In terms of the definitions in the RPS we've covered a little bit with notable values, it's more a list of possible values in there rather than a definition. Land use development is it a matter of someone increasing stock units by stock unit by hectare? Our development has actually been perhaps the other way we've had more land go into forestry in the last 40 years. We have incentive schemes to further that we also have incentives for people to carry out manage reversion and fund them to do so. And so the land use development issue is something we would like to have somewhat better defined in the NPS.

[11.40 am]

Outstanding and degraded water resources, we're a little unsure what the definition of "outstanding and degraded" is. We've had submissions in the past for a number of discharge issues with regard to waste water where there's a concept out there that we have degraded freshwater resources because of the sediment there and it will get to a certain level where we

can be in control of erosion in our district but we're still going to have sediment in those major areas.

Costs and benefits. We believe the assumptions in the NPS very much look at situations that are over-allocation and areas that are to do with water quality so we believe that in the Gisborne region they are over estimates. The estimated cost we believe are too broad for us and could be significantly underestimated in terms of what Mr Newman was talking about this morning, riparian management. We've actually found the Harris (ph) report on the assessment to manage very helpful in terms of what sort of issues we should be looking at but in terms of tying it down to individual regions and properties beyond that found that is very broad for us. Gives us the concepts but individual properties have simply individual problems. And we found that some of the mitigation options are perhaps impractical and here is an example in our regions gulley planting for instance. The top picture here is a variable planted gulley system there's some natural indigenous vegetation in this part of the gulley. In terms of land stability, this area here is now very stable, it's very productive, we still have live stock in there so we actually have live stock camping under the trees that in a normal situation erosion issue they would be distributed over the whole land area. We only get intermittent flows in these water courses at certain times of the year, they are still accessed by stock, there are difficulties in fencing this sort of thing out and we are wondering to what extent we would be expected to fence water courses out. And it's difficult enough to fence along that line but it's actually a lot more practical to fence in an area behind there. The practicality of fencing these source areas out is not only prohibited in terms of cost but practicality, and it is very difficult to hold fences anywhere on unstable fence lines in our region.

This catchment here yet to be planted some planting over it here, but we can make that stable and there is assistance available to do it. The

reason this gully here hasn't been made stable is the priorities on this property are controlling bigger erosion problems than this. And someone will come along in time with livestock being under the trees here we have stock manure and that in amongst those trees and then a rainfall event we will get microorganisms into the water course below. So the question that we'd like some guidance on is what size gully system and water course we need to go down to? If we've got to deal with these ones in terms of reducing microorganism numbers, we've got some really problems in our region. I think there's probably a perception out there that we need to be going to, if not a smaller catchment (inaudible) some fairly small ones.

Timeframes. In terms of Regional Policy Statement, we have the Regional Policy Statement at the moment that if we could develop a Regional Water Plan in a consistent manner, we would. And we really wonder if that's actually necessary. We are actually looking at developing a Regional Allocation Plan at the moment, we're in the throes of doing that. So we really wonder if the step of the RPS is that necessary and we're of the opinion of a 40 working days of getting Regional and District Plans, and we're responsible for the Gisborne district, notified within 40 days of the RPS, we can't help but find this unrealistic.

We are more than happy to put together some form of allocation plan that is going to provide certainty for the council, for our users and the environment. However we are certainly looking at ensuring our water quality is not declining, but we do have a priority of land management, and the time - some of the timeframes that go with these issues, in terms of - if we do have over-allocation or we have some declines of water quality, then we'll be quite happy to have stringent timeframes put on us, but at the moment we just find these are perhaps a little unrealistic for the situation we are in.

In terms of setting environmental flows and levels of (inaudible) for all fresh water resources, perhaps instead we could look at where existing takes and future demand is likely. We have situations such as the Lava River in Tolaga Bay where we have salt water intrusion a fair way up the river, perhaps three quarters of the way inland of the area of flat land we have there. There's no takes, there's not likely to be any takes, and we see it as a futile exercise to go through setting minimum flows through there. We have had people look at putting water storage on that catchment. We also have other catchments, the Hongia River for instance which is now, a very high proportion of it is in forestation, and a very limited area of parable land, and we see it as a reasonably difficult, or an expensive situation to establish minimum flows on that water course. And maybe the intent of the NPS is not to do that, perhaps we go through a process of identifying where, or we should be setting minimum flows, but it is just a little unclear to us at the moment.

And in terms of looking at outstanding, and degraded other freshwater sources, perhaps we could look at some of the existing takes, and that includes looking at the definition of what's outstanding, what's degraded - as was delivered earlier on. But in terms of all water courses, we actually find that it's going to be difficult to resource, and what benefit we might get out of it on catchments such as (inaudible).

Swimmability issue is - is going to have some perception issues within our district. Micro-organism reductions will be difficult to obtain. We're not going to hide behind that - why it will be difficult to achieve for us is a high ventral sediment contents, these two shots here are - have occurred this winter, and you can see there where the livestock have been walking around in this. I don't think anyone's going to get much enjoyment out of walking through an area like that, to get down to water here which is very difficult to see your feet when you're actually a foot deep in the water.

So there's is a real problem in the area, we are doing everything we can to minimise that, we are never going to get on top of it. The same here, you could go knee deep in this sort of material, once again, we're trying to minimise it. We believe the swimmability issue is something that needs to be looked at regionally. We are not hiding behind the fact that we've got this problem - it's that it is a natural phenomenon for us, and coupled with that is we have these excellent swimming beaches very nearby, along most of the East Coast.

So the - the issues that our submission really looks at is the stringent timeframes, were going to find difficult. Particularly where we do not have allocations, or quality issues - that's general trends from the district. We have asked could we have some of those definitions that were mentioned earlier on clarified. We believe that the benefits, and the costs need kept in consideration and I don't think we're really talking solely about the cost issues there, it's the practicality of the size of gullies we need to fence down to. And we believe we would ask if we could have environmental flows of water levels set in appropriate catchments. We do have several where we believe it's inappropriate, and at the moment we only have the two catchments, and the one area of groundwater where we have takes in our whole region. And it's difficult with the swimmability issue as well, can it be considered in a regional context.

We support all of these objectives in terms of integrated management. We believe a unitary authority in the way we're dealing with land management issues is a system that does work, and we believe that it is working it certainly supports sustainable management on water demand. We don't believe we're approaching total allocation other than the catchment where council draws its city water. We're certainly keen on efficient use of water resources, and (inaudible) that commission's

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resource consents requiring efficient use of the resource, and requiring management plans, and how people deal with efficiency, and these issues.

We are quite - very supportive of monitoring to identify trends, and we're very dependent on that in the absence of total allocation, we are looking very, very closely at what need is going to be had in the district over time, and to date that's all been very well. And we certainly look at using that monitoring information in terms of developing litigation actions within the district.

[11.50 am]

In terms of the policies - we are certainly quite supportive of most of the policies in there. Tangata Whenua issues, we really have no problems with, we are in the consultation process with Tangata Whenua groups at the moment.

The intents of policies two, and three, we're quite acceptive of other than just where these timeframes lie. And certainly policies four and five, as long we look at having those definitions.

Efficient use and protection are issues that we're quite supportive of we're certainly supportive of the use of non-regulatory type approaches. Where they are difficult we will certainly use those, and we're certainly very interested in continuing the monitoring programmes we have. They are addicted resource times in a district such as ours, but we are very interested in continuing those, and making sure we identify trends that are going on throughout the district.

And just finally we'd like to thank you for allowing us to speak to our submission today.

CHAIR: Well of course it's been very valuable for us to have you do that, and it's impressive that you brought your team with you that is very helpful, and we hope that we can gain further from some exchange with you. And you don't need to feel obliged to stand, or go through any formality if we ask questions, whichever of you is best able to answer will be fine. Mr Prime?

MR PRIME: Mr Hudson very briefly in your presentation you talked about the effects of the Motu catchment on your region. Given that it flows the other way, what are those effects?

MR HUDSON: The Motu Catchment is quite unique in that in the Gisborne district it is basically farming, with you know most headwater situations you - indigenous bush, and then it passes out of our region, into the Bay of Plenty, and into an indigenous area, so we need to be very careful of what the water quality effects we have from farming going through into the Bay of Plenty.

MR PRIME: Oh I see - so it's effects really on -

MR HUDSON: Yes - and it's something we've - it's an area of the Motu that is the - that has a very good rainfall, and perhaps the isolation issue is what precludes some land uses up there. It's a valuable area to the Gisborne district in terms of farming, and that's where we are getting some influence of run-off to areas from dairy farms in the Bay of Plenty. So we, it's something we need to be very, very aware of.

MR PRIME: Thank you. That's all - thank you Sir.

CHAIR: Mrs Vernon.

MS VERNON: Thank you. I want to go back to your original submission, and explore with you how does the Gisborne District Council, when you're doing - because you're a unitary authority, how do you run your plans, when they're due to be reviewed. How do you run that process, do you do the RPS and the District Plan together?

MS WILCOX: We haven't actually reviewed any yet.

MS VERNON: Oh

MS WILCOX: So we're not quite at that stage.

MS VERNON: So what do you think you might do?

MR HUDSON: We were actually looking at the options of how we might deal with that. I think the thrust of the RMA reforms is pushing us towards perhaps one type plan approaches, and I think that's something we would, could go quite nicely, and even more so including district aspects of the issue authority within a one type plan, if you have the scope to do that. Our RPS is due for review in 2012. We don't have our combined land, Regional Land and District plan totally operative yet. We have two chapters to still get operative, that's been a fairly drawn out process, but we'd be under a year.

MS WILCOX: I think an example actually is we're doing a - a sort of a cross policy exercise on storm water, is the issue, and it's actually affecting quite a number of different areas, as you would imagine. So there's subdivision, there's water quality, in terms of how it affects from the first

discharges, point source discharges, then it also goes into flood management, goes through a whole range, and so that's possibly an example of what you're talking about, we're at the very first stages of trying to review a major issue like storm water across a unitary authority, which is generally easier, and I suppose Kerry, and these guys have been through the waste water, which is a very good example of - I think, and Kerry might want to touch on that a bit more, but that's a very good example of where we've been able to do a cross council approach to a major issue.

MS VERNON: So your original RPS was developed quite independently of your District Plan was it?

MR HUDSON: It was prior to that, yes.

MS VERNON: Okay - so you waited 'til your Regional Policy Statement was operative before you started your District -

MR HUDSON: No - we still had aspects to get operative, it's been operative since 2002, wasn't it? Yeah. And, so there was certainly some overlap between, when one was made operative and the other one still continues on.

MS VERNON: Right - thank you. Going to today's information, I just notice that in this is on Page sixteen, and setting environmental flows, I notice that you are challenging the word "all" in Policy 1(c), but and I can understand what your story today about Gisborne being different, perhaps say from the Waikato, or Canterbury. How do we get around with an NPS, the fact we are dealing with all of New Zealand. If we take out that "all" what could we possibly replace it with, because, as we're finding some councils are prepared to do something even if it doesn't say they should, and then

there's others who really don't want to do anything more than what they're doing now, and they're really hoping that this NPS requires nothing more than what they're doing now, which for some of them is not a lot. So, you know - what do you suggest we put there instead.

MR HUDSON: Yeah - I wonder if it's a situation where we go through a process of identifying what potential water demand we may have, and perhaps a mechanism where the minimum flow and total allocations are required and we can develop it from that. It could be a fairly precautionary type approach to that. But we, we've got several catchments that we've never had water permits on them, and we're unlikely to ever have them, and it's a reflection of the lack of parable land in some of those areas. And irrigation on our soil types is a real no, no - because of the erosion issue. I think perhaps it's a preliminary investigation, which we're more than happy to do in terms of what is the potential, or possibility of water allocation in particular catchments be required. We're actually more than happy to revert to the defaults in the NES I believe that's something that Mr Lew spoke about in regard to Hawke's Bay Regional Council this morning. For instance on the (inaudible) River which is our largest catchment, we have had no water takes, but I can't imagine anyone would be asking for a volume of water out of there, which we couldn't allocate within the constraints of the NES on ecological flows.

MS VERNON: You're lucky.

MR HUDSON: Yes, well that reflect the, just the small area of flat land, but it also reflects the reliable rainfall we have in that catchment.

MS VERNON: So that leads onto my second question about setting environmental flows on your Page seventeen. You want in the Policy 2(b) to add "other freshwater resources of the region, with existing takes" now

am I assuming that you're hoping that all the rest of the water would fall into either the outstanding, or degraded category.

MR HUDSON: No - I think what we're asking you for, could we have environmental flows and levels for each of those, but where we have existing takes or perhaps the potential for takes in the future, we'd be quite happy to base that on some precautionary type approach to that. It comes back to what is the possibility of some catchments ever having the requirement for water permits, and demand -

MS VERNON: I guess, I can understand where you're coming from, but I can also think of some other catchments who would love that to just be -

[12.00 pm]

MR HUDSON: Oh I can understand that - yeah, quite different to that, but it just seems to us to be a very resource hungry process to be dealing with all catchments. And I think Mr rone might add something of interest.

MR CRONE: I'll just speak a little bit if that's okay.

CHAIR: Of course please.

MR CRONE: Just in regard to the 150 takes that we have, we estimate that even during this water allocation plan, could cost the ratepayers a \$100,000., you divide that into a 150 users, and you can understand why the council hasn't done one. And that is because we, the councillors have considered the benefits of doing such a plan and I think we're just conscious of the whole NPS, how much robust science do we need, how much monitoring and just basically keeping on top of the issues that may be a national one, but locally all our ratepayers are quite happy, and don't

want us to spend a lot of money. So I think that's a lot of what it comes down to, and then coming back to that word "all" - I guess Kerry, we would want a criteria that says, something underneath there that says that you know, you're doing it for this reason, and to meet this criteria, rather than just the word "all" which our ratepayers would be quite concerned about.

MS VERNON: So in other words your concern is that the word "all" is a rather too broad when it comes down to more of a local area, say like Gisborne.

MR CRONE: Yes

MS VERNON: Thank you. And just on, in your conclusion you talk about integrated management of water quality. You wouldn't be opposed to words "integrated catchment management" would you?

MR HUDSON: No - not at all.

MS VERNON: No

MR HUDSON: No, no - we've been down that trail. We have several catchment controls, right back in the (inaudible) days, the reasons they are not still going is the funding issues. There's a very much integrated approach to soil, and freshwater management, we will not be concerned by that at all.

MS VERNON: Interestingly in your original submission on Page 3, under water quality, how did you manage to get livestock numbers reduced, was it just, you know - was it a result of Cyclone Bola, because everywhere we go in other areas -

MR HUDSON: It's all intensifying -

MS VERNON: Oh yes - and it's all too hard, and you know, and I'm just -

MR HUDSON: How did we reduce it?

MS VERNON: Yes, how did - and was it Cyclone Bola that was like the catalyst for this area really.

MR HUDSON: Cyclone Bola was the final blow for some people. It, when that occurred we had people who had a stable fence line on their whole property. We had properties that were running completely dry stock, and that occurred in March, and there was rams went throughout our district because of the lack of fence lines, and some people who had nothing but dry stock had very good lambing percentages. And what actually happened was there was, the Government billed at the time was there needed to be some incentive schemes, and so the live stock numbers declining is because whole farms went into forestry at the time, parts of farms. So we we've actually had a decline. Some properties may have planted quite large areas of forestation blocks on their property, and intensified slightly to make up for it, but overall there would be a decline in stock numbers, because of the reduced area of -

MS VERNON: In a similar vein you don't mention about, a little bit about fertiliser use, and contamination, I just wondered in your hill country, what has been the incidence of increased nitrogen use amongst your pastoral, dry stock farmers, because I know in other places in New Zealand there's very good statistics showing that on dry stock, I mean traditionally it was just the dairy farmers who used nitrogen, and now increasingly the dry stock are, and is that also true in this area?

MR HUDSON: Well I don't think we'd actually know too much about how much the likes of urea's going on. Mr Crone may have more to say about that.

But our hill country is reasonably steep, and erosion-prone, and the actual stocking numbers are dictated somewhat by the size of the paddocks, fence lines, those sorts of things.

Nitrogen will give people an immediate boost at times, and it may be going on in reasonable amounts, but I think over the whole district it's still a fairly minimal input.

MS VERNON: You don't have any rules in your plan?

MR HUDSON: Oh we have rules in terms of application of nitrogen per hectare, at 150 kilograms, that's something that we need to look at into the future that's an annual amount, and if you were to put that on all at once, perhaps that's not what's required, but - yeah Dennis may have some -

MR CRONE: I would say we would follow national trends, but at a more extensive level because of that more extensive farming, the strategic use of nitrogen may be a little bit less on the East Coast, than somewhere like Manawatu, or Hawkes Bay -

MS VERNON: That's lovely - thank you very much. Thank you Sir.

CHAIR: Dr Harding.

DR HARDING: Thank you. Just following on the comment you're making about livestock there, and getting into these upper catchments the people are just, and you talked about landslides here, the issue of microbes, do you - are you seeing higher levels of faecal bacteria above ANSEC guidelines, and that sort of thing in these catchments, or are the livestock densities just not really that high.

MR HUDSON: I used to be able to say - I don't think we've seen long enough in terms of some of the forestation product work that's gone on. Some forests have been in place for a long time, and so the levels are down, but I think it's pretty early days for that. I think a lot of it also depends on how long since rainfall it's been when the measurements are taken, that has a huge effect on it, and I think it's very difficult to paint a picture of where we're at. It would be quite manipulative to paint the picture you want, in terms of monitoring it during a dry spell, that sort of thing. But I think in terms of getting a true picture it's actually quite difficult to do that.

DR HARDING: So do you have swimming beaches that you monitor faecal bacteria?

MR HUDSON: Yes, yes.

DR HARDING: And it's not, is that a problem in some of those beaches, or not?

MR CRONE: It can do yes, the point of the bacteria attaching to the sediment, and the fact that we have high sediment, and with rainfall, I guess the public are comfortable in that it's not when they're swimming, in during storms that it occurs usually, but we do find quite high levels in the rivers, and at Waipaoa River they would influence our beach site, I think we monitor 9 beach sites only, yes, so we have 9 swimming beach sites that the environmental health monitors on a regular basis.

MR HUDSON: We see declines in bacterial levels the further distance that we go from river mouth. So we can get asked, you know, do you check that over time.

MR CRONE: And we do also have a perception in our region that our very poorly treated sewerage goes into Poverty Bay, and we now by 2010 are

going to have a bi-trickle filter system, so there's the expectation that our faecal coliforms (inaudible) are going to drop right down, but it's not going to happen, because a lot of the source is from the river, and from the microbes attaching to the suspended sediment coming down from the rivers.

DR HARDING: Okay, so just carrying on with that slightly, again just talking about these head water systems, you also mentioned that a number of these are intermittent flows, under the present degradation here of freshwater resources, ephemeral systems are actually excluded so does your council have a view on whether ephemeral or intermittent systems should be included in this?

MR HUDSON: I think the driving reason why we put that as part of the presentation was that there would be perception in our region that we should be going further, and into the ephemeral intermittent type situation, yeah the wording in there is probably fine, but it's just how far we may get driven in terms of perceptions down the track, and the wording, and if ephemeral is there in that nature, that's probably okay.

DR HARDING: Right, at the moment it's not there, at the moment it's excluded, so I guess I'm trying to get the feeling would you rather that it was included?

MR HUDSON: Yes - we don't want to be hiding behind things either. We want to be doing as much as we can to get the thing right, and I think there are certainly times of the year under rainfall we're always going to have microbes that enter water courses. But we like to do as much as we can to try and prevent it in finer weather conditions. But the penal situation would certainly help with something of that nature.

DR HARDING: Okay, so obviously you've talked quite a bit about the sediment issue, which is partially due to your steep slopes, rainfall, and that sort of compound factors. I'm just wondering that obviously you're concerned about an NPS laying some sort of guidelines on you which you're, you feel you're not able to control, because of sort of like background sediment issues. Some of the submitters have talked about the idea of having sort of referenced conditions, of having what sort of the natural condition of it might be, and so what you're able to do is compare, or quantify what the natural condition of sediment erosion is, and then say, "Okay well situations where you're getting sediment run-off, that's well above what we might expect under natural conditions." Then that's something we need to do something about, how does that sound as an idea, or do you do some monitoring, do you have sort of a reference, or control type sites - data?

[12.10 pm]

MR HUDSON: Yes - something of that nature would be fine, but the issue that we would run into is that the levels of sediment we had in say 1960 were unacceptable, what we have now in say 2009 going to 2010 is, probably still some room for improvement, it's just a matter of where that level of improvement is seen as how much further we can go. We could spend a lot of money down the track, and get little very little further benefit. So it's a matter of finding just what that level of sediment is, but some, an approach like that would be very helpful.

DR HARDING: Okay - thank you.

MR HUDSON: And we would prefer that to be funded.

DR HARDING: Absolutely -

MR CRONE: I think a lot of these big councils have quite a science capability, we have very little, so it's very costly for a unitary council like ours to fund that robust science, so setting those reference levels sound good, as long as you consider how that's going to be done for a council like ours.

MS WILCOX: A case in point is at the moment we're going down the track of developing this water allocation plan, and all of our science is coming from grants for, you know, because for reasons that Kerry's gone into before about priorities, resource, and -

DR HARDING: You also made mention a couple of times about having a precautionary view about allocation of water, and that sort of thing, again a number of submitters have suggested that one of the things that really should be in the NPS is something about a precautionary approach, how do you feel about including something along those lines in the document?

MR HUDSON: We've probably got not problems with it in terms of identifying what catchments we may allocate water out on in the future. We would like to be in a situation in those water courses we do allocate water from we take a reasonably realistic view on what's allocated from there. We, while we only have a limited number of takes, during those months of the year when that water is taken, its really the life blood for the district, some vegetable growers, and a few key people are very dependent on that water at specific times, but you will, we're certainly looking at having it in some form of sustainable allocation.

One of the difficulties that we have in our region is that there is a general lack of research into aquatic specialties in our water courses, and I think that's as a result of the high natural sediment loadings, there is - it's been released in the past there's not a great deal of aquatic life in some of our water courses, we're finding there is, there is quite a bit more there with

electric fishing, so we're very interested to see how that progresses over time. We have problems in funding that, but we are also quite - quite interested in seeing how that pans out over the time. Bearing in mind too that the seasonal nature of our takes, there is a lot of opportunities for fish passage up and down the rivers for a fairly large proportion of the year, that's something - yeah, but how much of a precautionary approach do we need to take to one, or two of those aspects we're not sure, but then we don't have those year-round takes (inaudible) in other part of the country. I don't know if that's answered what you - what you were after at all.

DR HARDING: Okay - no, it's good to hear your views on that.

MR CRONE: That's one approach we are doing in precautionary is considering our rivers in two aspects - one is habitat, and the other is what we call a corridor up the Waipaoa River is quite highly sedimented, but there may be good native fish at a certain point up, so our precautionary approach would be looking at the migration of the fish up and down, but you may not find fish in that river for a lot of the year, so we have to take an approach that says corridor (inaudible).

DR HARDING: Okay. And I guess the last point I'd like your views on you made mention of the timeframe issues and you said that you consider a number of these timeframes aren't sort of realistic. So would you be willing to give us some sort of guidance of what you think might be realistic timeframes?

MS WILCOX: (inaudible)

MR CRONE: (inaudible)

MR HUDSON: Yeah well we actually asked for five years of the NPS to get that in place. Yeah that would be more than helpful for us. We actually

believe the time the NES called for submissions (inaudible) we were in a lot of strife in terms of what our (inaudible) recalculate that and find we are - we're not in as difficult a situation but what sort of further time would do for us is provide us with some certainty in terms of getting those patent documents correct.

Our council focuses on essential planning documents at the time because of the resource pressure they're under. And so we prefer that had timeframe in terms of getting a very robust document put together rather than having a rushed one put together (inaudible).

We're not asking forever. We're just asking for a reasonable timeframe. We're underway with it. Our aim at the moment is 2014. But the point about doing a regional plan on the basis of where (inaudible) at the moment is (inaudible) at the moment (inaudible) quite significant review to our RPS work we believe we could get on and get the regional plan (inaudible) done for (inaudible) of allocation.

MS WILCOX: I mean I suppose the other thing to consider is the actual practical plan change, because you're looking at a plan change or plan development process. It just takes a very, very long time and like Kerry said if you're after some very robust information to add to your policies, rules, whatever you need a period of time.

In Louise's presentation I think Mrs Vernon you brought up the sustainable hill country project which what we've just been through. It's taken seven years from say the beginning stages right through to getting a decision and having an operative chapter or an operative part. So seven years of getting - you know and the whole consultation thing. It's a very, very long process and it's a very demanding process and with us having - not being well resourced as well, it does take a long time for us to get to those

points. And I don't know what other councils have talked about but two years or 40 days is a very, very short and unrealistic timeframe.

I don't know what the new RMA amendments are going to throw us but we're hoping that they may - they're supposed to be put in there to speed up this process. If they do speed it up then your two years or 40 day requirements under the current proposed NPS may be realistic. Where we are at at the moment they're not in our opinion.

DR HARDING: Okay. Thank you for that. Judge?

CHAIR: Well it's been very interesting to hear an entirely different point of view from an entirely different region. Thank you very much for your submission. And thank you very much for coming and explaining it all to us so clearly and well. And the Powerpoint slides were a great addition to that. It's very good to have had your help.

MR HUDSON: Thank you. Can I just add a point about the SHC (inaudible) this is successive governments right through to the 1960's when they started buying land for a forestation on eroding land was pretty unique to our district. Recognise they had a large erosion problem and every government since has done something to try and deal with that problem. It's been a costly process.

We've gone away from land acquisition into grant assistance whether it's been through the council or through the Ministry of Forestry. They recognise it as being something that is more pertinent to our region than elsewhere and it's something that we follow very, very closely. And (inaudible) over time we get on top of that the SHC itself is now (inaudible) our plan if people need to deal with severely eroding land and erosion

issues that worse than severe. It created quite a lot of debate in our region but it's now an operative rule in the plan.

There is subsidy assistance or grant assistance to progress that. And it's something that we're progressing over time. We have a permitted activity situation until 2011 for people to get works plans in place. And beyond that it's a consent requirement to graze land with those severely eroding slopes on them. So it's certainly a very much a move in the right direction for our region and it's been the focus for where we're going.

MS VERNON: What sort of consent will be required after 2011?

MR HUDSON: This will be a discretionary activity.

MS VERNON: Discretionary. Thank you. Thank you sir.

CHAIR: Well thank you again.

MR HUDSON: Thanks very much.

CHAIR: We'll take a lunch break now and continue after lunch.

ADJOURNED [12.19 pm]

RESUMED [1.38 pm]

Audio file: dpm 0144

CHAIR: Thank you very much. So you know that we don't require any formality. You don't have to be standing to speak to us or anything like that. You can sit or stand as you like and just present in support of your submission as you choose.

MR DODDS: Thank you.

CHAIR: Now this afternoon we are going to have to rearrange our programme a little due to some non appearances, so we are going to start with Hawke's Bay Environmental Water Group I think, and is that the understanding you have too.

MR DODDS: Yes, we've been informed that we would -

CHAIR: Yes. Thank you, and we appreciate you coming today and we're looking forward to hearing what you've got to say. We've read your original submission of course, but we would like you to have the opportunity to present on it and explain it, and to add what you've got here.

MR DODDS: Thank you Your Honour, members of the Board. We intend to start with the DVD, a graphic display and then speak to that particular point and then speak to the - speak to our relief sought for each of the two submissions, and then the extra material that we sent in. So it wasn't our intention of course to speak to everything within those submissions, but to perhaps expand on those requirements that we would like to see, and

then perhaps if there are questions, then we could deal with the whole document or whatever.

CHAIR: Thank you.

[1.40 pm]

MR DODDS: So we have got a DVD Your Honour. The Mohaka River - oh sorry, my name is William Dodds. I'm a member of the Hawkes Bay Environmental Water Group. Alongside David William Renouf, a member of the same.

We are a group of people who have been active together now for some seven years, and we are pretty much straight line on water quality and anything that may affect that, which is the reason of course that we are here today.

CHAIR: Very much pertinent to our task.

MR DODDS: Yeah so it's something that - we're not experts Your Honour, we have quite wide experience, and you know we've been before the Environment Court and submitted on numerous occasions, and we do using other expert material - to a point where we understand it so we can submit on it. The material, almost always is not our own. We may refer to it, or expand on it, so we agree that it comes from experts - Your Honour.

So perhaps if we might start with the DVD and this is of the Taharua River catchment, and the manner in which it affects the receiving zone that is the - or you can see the environment, that is the Upper Mohaka River.

So what happens here is that there are some 15,000 dairy cows in the Taharua catchment, three farms, more percent than that - are in the manner in which that discharge effects - this is upstream of the discharge point and you can see the clarity of the water and indeed you will see some fish. This is a near pristine environment. Great visibility, and you can see by looking at the stones on there where the current is, there's no - a fish, a brown trout that you can see easily, and I think that's the whole point of that, the visibility here is good, there's little or no (inaudible) and that's actually looking into the water. You can see how pristine that is. The Mohaka River is a renowned trout fishery and you can see why, perfect environment for it.

You would expect to see a little bit of algae like that on some of the rocks, even in the pristine water, but obviously not where there's some current.

MR RENOUF: People have said to me when they have looked at that, they said that can't be under water and I said, yes that's an under water camera shot.

We're about to go to a point very shortly where you'll see the actual place where the Taharua enters the Mohaka River. You will see what visibly happens when the nutrified water - yes, now here is the Taharua, coming into the Mohaka and here is the effect with the scum and grease, one of those nice section 107 conditions which you are not supposed to see. This is a Fish & Game DVD and you will see Mr Iain Maxwell, their scientist and manager shortly with handfuls of this stuff.

The reason really for showing this DVD was to show exactly what is happening here, something which is directly associated to three farms and something - the damage seen in just 10 years to a pristine receiving environment. The whole purpose of it was so we could kick off on that,

and just attempt to show the Board exactly what's not being done - when in our opinion it should be.

[1.50 pm]

MR DODDS: You'd better start reading your submission because you can't use mine either. Start reading your submission.

MR RENOUF: Is this - the actual laptop is not -

Now this is at the point where the Taharua enters the Mohaka River, and at the top end of where the mixing zone starts. And as we go down we'll see the effect of this discharge on the algae in the river. That's a nice shot of Iain Maxwell. And now you're starting to see the effects of the nutrients in the water, and the effect that they have on the receiving zone, and you will notice the clarity starts to disappear and you'll very shortly see what happens when one puts their hand down the bottom, and also there's not a lot of fish present in this section of the river. This all emanated from those nutrients that have come out of Taharua, and during the hearing process for this consent when it was issued, you will see in the evidence, the Appendix 5 document in Dr Brett Stansfield, he's also Regional Council, or Mr Brett Stansfield scientist, what he's got to say about the yearly increases in nitrogen and the effect - where the effects came from and it is certainly being labelled as the dairy farms. This is absolutely shocking degradation, if you were a trout fisherman you will understand as we're both David and I are.

Now it's, in our opinion quite a graphic pic because it shows the upstream effect and pristine environment and it shows the actual discharge coming

from the Taharua River, and then it shows what actually physically happens during and after the mixing of those two waters.

Now if I may start off please, and that's with the - that's the one on the top that starts with DVD.

CHAIR: Thank you.

MR RENOUF: This is the Taharua River's receiving environment with the Mohaka River. The Mohaka - being really the mixing zone, if you like. The effect is not seen so much in the Taharua River, because it has a free moving pumice like sub traits in the bottom. It has an effect of sandpaper, it just stops anything from building up, so even though the nutrients are in there and Brett Stansfield's Appendix 5 document will show that - we'll see that shortly, it will come up in evidence, it is in the river with the early increases in that document, so you know it's there. It's only when it gets to the slower, warmer waters of the Mohaka that we get the algae - the algae is able to build up, and the effect which you've seen.

The reason for showing this graphic clip is to repress upon all, exactly that which an Authority does not do when firstly hearing and then issuing consent to discharge dairy shed effluent to a designated area, and of course an important reason for having an NPS binding to on all parties, so what we are saying this is

New Zealand wide, one set of standards for all councils. There are huge cost citings here. It takes away all the argument, and because the applicants or the agriculture scene have got one set of standards, everyone therefore just agrees with them, so there's no argument between councils. There's one National Policy standard for the - for every Regional Council in New Zealand. That's what we are supporting.

In this case, this particular one was a new consent on an existing consented dairy farm. The effect on the receiving environment, that is the Mohaka River, is clearly seen and can only be described as a major effect and we'll touch on this because it was said to be a minor effect when - during the hearing, but as you can all see I don't think anyone could say that's not a major effect. It is our understanding that this new consent, 2000 cows, is part of some 15,000 dairy cows, several consents, within the Taharua River catchment, so the damage which is self evident has not been considered by the Hawkes Bay Regional Council staff, and indeed the independent Ministry for the Environment appointed commissioners as being serious enough to oblige the acknowledgement of the likes of RMA section 107, and those visual standards and I just touched on one of them earlier. Section 84, the requirement to observe ones plan and RMA section 17, and that's the requirement, every person shall mitigate. In short the damage seen by way of the DVD, and the very clear evidence from Mr Brett Stansfield's Appendix 5 document, and indeed the original consent hearings committee's findings, that was in 1999, report that states in 1999 the Taharua's near pristine waters and 10 years later we now have this effect. Shows just how sensitive - recognise so in the Hawkes Bay Regional Council regional resource management plan, the Taharua catchment is.

There is a conservation order on the Upper Mohaka River, the receiving environment. Designed to recognise, protect outstanding features along a given length, not the entire length of the Mohaka, but the Upper Mohaka. Discharges must meet section 107 visual standards, or it states that the - no permit shall be issued. RMA section 84 requires all authorities to observe the Policy Statements and plan - I've got here rules, but I guess that's the same thing. RMA section 17(1) is a statutory requirement to mitigate such an effect. RMA section 17(1) is in both the plan and the consent. The Regional Council may well claim that their plan was drafted

without robust material, but this, in our opinion, does not give them a free ticket to allow this situation to carry on - certainly not with what amounts in the new consent to a doubling of the amount of nitrogen at discharge. That is over the farms original existing consent, 1999 consent. Remember that this farm now has two consents, one for the original 4,500, and a new one for 2,000. Now we're not saying there's still 4,000 - there's an extra 2,000 cows on the farm, but that is a condition which they could still do if they wished - and a new one for 2,000 cows. As well, these matters in 1999 - a consent was deemed as a permitted activity. That was rule 14 of the Regional Resource Management plan here in Hawkes Bay. The new consent however, was changed to rule 15 and that's a discretionary activity, due to the catchment being declared in the plan a sensitive area. That was really due to the conservation order that was placed during Helen Clark's rain on the Upper Mohaka River, the receiving environment.

[2.00 pm]

Policy 20 was stated as being of major importance during the hearing process, as rule 15 had no conditions or standards in it. Policy 20 allows the hearings committee to consider a wide range of matters in order to make a decision in regard of granting the consent. Rule 15 allows the panel to turn down an application. Policy 20 allows for the cumulative effect to be considered, any other mitigating effect - stock densities - the effects of dairy effluent discharges in the sense of the catchments which this is deemed so in the plan. Total farm balance, irrigation and stock feeding regimes, supplement feeding, that is. Rule 15 does not allow for a permitted baseline. The Regional Council imported this from rule 14, a permitted activity as it was under the original consent, but it was not heard under that in the new consent issued. It was a discretionary activity.

Now as I've already stated, it's taken only 10 years for the effect of those three farms to produce what you have seen in that video, in a pristine environment. And clearly, in the issuing of a new consent with doubling of the nitrogen and discharge, no action has been taken. This has been spoken about to all the relevant Government agencies and apart from the Parliamentary Commissioner who informed us that she would indeed investigate, no action has been taken. To us, it appears that agriculture experts rule the day. Without doubt we would say - this exposes a Regional Council that has shown absolute disregard to what we see as being quite severe environmental damage. Just over a year ago, the Hawkes Bay Regional Council prosecuted this exact Dairy farm for a breach of what was then the 40 kilogram per hectare at discharge from the milking pad. They stated - and so to the prosecuting Judge that anything over this figure would leach and was thus liable to cause "insidious and cumulative damage" over time. The Regional Council's response during the issuing of this new consent was to increase the discharge to 75 kgs per hectare, after that damage seen and we submitted during a hearing process in depth and with some passion on this and we were ignored totally.

It cannot be that any party could say that no action should have been taken - yeah, so we request that the Board of Inquiry take remedial action, and by way of the NPS put measures in place that require rules and standards on all authorities plans. We're not just saying here in Hawkes Bay. We believe firmly there should be one set of plans, standards - rules for every Regional Council in New Zealand. And that is so that this - what see as a disaster can never happen again.

Policy statements, rules, standards, regulations, the RMA 1991, the Health Act and the Conservation Act combined, we feel should have been enough to mitigate the effects seen.

Now there is one crucial area for us which we would like to discuss before we go on to discussing each of the three submissions, and that - which we would like to see as remedial action, and that's on the 10% versus the 90% factor. Without a shadow of doubt, unless this matter is dealt with in full nothing will halt what is happening in not only the Taharua catchment, but indeed New Zealand wide. Dairy farm consents are issued for the discharge of dairy shed effluent. The time spent on the milking pad, and resulting effluent equates to 10% of one cow's daily production of urine and dung. Urine H_2NCONH_2 is a form of urea and a contaminant in its own right. This is discharged to a given area which is also grazed. If, as already explained, a dairy farmer breaches his or her consent condition for X number of kilograms per hectare per annum, I've said - they will be duly prosecuted. This 10% is then regulated. The problem is the 90% is not, and that is the 90% which the cow is urinating and defecating onto that same area to which this material is discharged to from the milking pad, and that would be a designated area. So say if a farm had four or five hundred hectares, there's likely to be a hundred hectares of that farm designated here in Hawkes Bay at least, as the designated discharge platform for the dairy shed effluent, at a given number of kilograms per hectare per annum as a maximum figure for that consent. And to complicate things even more, in Hawkes Bay at least, this effluent discharge pad, given area, is also grazed. This leads to the - what we see as the ludicrous situation where the dairy farmer can discharge as much as 20 times over and above the non-compliant proportion, so what we're saying there if the discharge was for 50 kgs per hectare, per annum of nitrogen, and they went to 75, 50% per over, and they were prosecuted for that, that's 25 kgs - so the extra amount that's defecated, urinated in the

paddock might be 20 times, at least 20 times over the noncompliant proportion, with total immunity. That is to RMA section 15(1b) which is what the prosecution was taken under. And that is because this 90% is permitted. It's considered to be the permitted baseline.

We seek clarification of whether or not this 90% is actually calculated into the overseer document which is used to give a ball park figure to estimate how much nitrogen is being leached from each dairy farm by using, by use of the overseer document. It appears in viewing this material that was presented during the hearing that it was not. We can't find it in any of those figures.

So what we're saying is there, they factor in the 10% into their leaching rates but it appears, to us at least, that they're not using the 90% (inaudible) for estimating the actual amount on each farm that is leached that is nitrogen.

We request that the NPS require all regional authorities at the very least to meet the following - and these are Hawkes Bay Regional Resource Management Plans, policy 20 and 48 criteria. Which - policy 20 of course are those lists of things which sees a regional council may look at in order either turn down or agree to a consent within a sensitive area. And policy 48 is about the buffer zones.

Then these as minimum requirements. Also every consent required to state must or shall contain the soil type and its moisture holding capacity. And we'll touch on that more shortly. That 100% of the urine - the H₂NCROH (ph) urine is regulated in the consent and not only nitrogen because nitrogens the only thing that's in this consent. Phosphorous and potassium are not and they're there in quantity as well. And that's per hectare, per annum in the discharge consent. Maximum levels.

And that special attention be given to free draining soils. A sense that before any consent is issued this so to consider that if leaching is likely to happen then no consent is given. We see this as crucial to stopping the degradation of our waterways in New Zealand. And this especially's done in relation to other factory farming and or dairy farming.

[2.10 pm]

The NPS we would also say, must require these requests to be mandatory and require all authorities to make multiple applications per hectare per annum as a consent condition. Also a requirement that nitrogen, phosphorous and potassium must not exceed the crop or pastures needs. Otherwise the excess is liable to leach and cause insidious and (inaudible) effects to the environmental damage over times.

These are all required to be statutory consent conditions.

Now we'd like to - as I've said the reason that we've - and I showed the DVD is so we could - that's really an added piece of verbal evidence if you like along with that which has already been supplied. But the Hawkes Bay Fish and Game DVD, which is what was shown during the hearing and again during the ten year plan revision just a short while ago - really is, for us was a bit of a gift because it - suddenly here was something graphic that has been - shows what we've been saying. Something I've been saying for some time.

Now we would like to go to the original submission. Yeah you've got a copy in there. There's two submissions Your Honour. And I believe it's that (inaudible).

CHAIR: I've got one dated the 28th of October.

MR DODDS: Yes.

CHAIR: Is that the one that we should be looking at?

MR DODDS: Yes. So if you look at the 28th of October one.

DR HARDING: Yes.

MR DODDS: And where it - we would understand Your Honour that the main part of this submission is (inaudible) and if we go to the back - to page 6 where we seek the following changes. And then the corresponding that has the (inaudible) numbers on it. It's headed "The Hawkes Bay Environmental Water Group Submission" but so too is the other one. So it's the one with the 21 requests on it.

MR RENOUF: If they can't find it (inaudible) what it is.

CHAIR: Yes I think we have it.

MR DODDS: Okay. Fine.

CHAIR: And as you say it has 21 requests.

MR DODDS: Yes we've already made 21 requests Your Honour.

CHAIR: Yes.

MR DODDS: So these are just an expansion on those.

CHAIR: Yes.

MR DODDS: It's just something that we - we would like those 21 requests to be taken as read and we would like to expand on them if we may.

CHAIR: Yes that's what you are here for.

MR DODDS: Thank you. Okay so if we go to one - and this is additional - to factor out lag time in their plans with rapid growth in agriculture - horticulture—

MR RENOUF: regional council.

MR DODDS: Yes this is regional council. Horticulture, Manufacturing, Processing, More Storage Dams, Increased Fertiliser - and that's a major thing - use - greater volumes of municipal sewerage, effluent etcetera and the fact that many discharges happened 20 years ago and are now - we're seeing the effect of it and I make the comment there Taupo. And also Rotorua too. So we're actually starting to see damage that happened 20 years ago. And if we see this rapid increase in people staying to talk about and complain about that we start seeing like in Tarua (ph), one of the reasons is that because of the lag time.

So there's also lag time Your Honour in the consents. And because these environmental - the environmental damage that we're seeing is increasing so fast the policies and rules are not (inaudible) simply not able to cope with this rapid increase in the damage seen. So what we're saying is that the plans which are generally of a ten year span nowadays it's too long. And they need to be reduced to a five year span to cope with what we're seeing. I think it's a fairly general thing that regional councils are not coping well. And their plans are simply not robust enough to actually

physically cope with these changes. Which is one of the reasons why we've asked for the NPS to address all these matters. The regional councils - say for arguments sake instead of having guidelines must have standards and rules. Otherwise they just say "It's a guideline Mr Dodds. I'm sorry it won't stand in court."

Now if we just go down below - there's been a bit of a typing error here - my lovely wife in the small hours, or the long hours of last night. If we go down to the bottom of number 2. The response to Tarua (ph) was to double the limit discharged. Quite simply there seems little will to address this mounting problem. We therefore request that the NPS address this issue urgently. We suggest an urgent (inaudible) MFE and it's Minister requiring territorial authorities to act immediately on this matter of making their plans more robust. And perhaps if there could be some - we would ask that there might be some recommendation that this ten year plan, given what we're seeing, and given that our councils not the only one that's having trouble coping with discharges, that this period be reduced to five years not one as normally ten year plan of time.

If we go to 2, what we are saying here is section 15 forbids discharge of any contaminant unless expressly allowed in a regulationable plan. We are saying that if the contaminant is not in a regulation or a plan allowing it to be discharged then it must surely be in the consent. And probably the reason why we ask this is because if not - phosphorous and potassium are not in these dairy farm discharge consents. And other contaminants as well. So what we would like to see because of section 15 - we would like to see every contaminant that is in that particular discharge in the consent with maximum limits or a particular standard. And that would be binding on all regional council's in New Zealand not just here in Hawkes Bay. Everyone would have the same standard.

If I just might sort of expand on that a little bit more Your Honour what we're seeing now is that the applicants, or the consent holder are now being punished quite severely. And perhaps it could be seen that the applicant really is just doing what he thinks he can get away with. If the plans were far more robust and had conditions in that applied to that discharging then he wouldn't get in trouble in the first place. 'Cos what we see is that dairy farming, especially repeat ones are really chancing their (inaudible) and they are getting pinged two or three times not just once.

There need to be rules and regulations in a consent for every contaminant with maximum levels, not guidelines, that physically stop him discharging in the (inaudible) in the first place. It's perhaps almost a little bit (inaudible) Your Honour to pink a dairy farmer who's just doing what a regional council is letting him get away because their plans are not robust enough. We don't like what the dairy farmers, or those people who get prosecuted are doing of course. But if the plan was more robust it probably wouldn't have happened in the first instance. Saves an awful lot of money and time Your Honour if the plans were more robust.

Three. RMA section 84. We've touched on it. Local authorities to observe their own policy statements and plan. While a policy statement or plan is operative the regional council or territorial authority concerned and every consent authority shall observe and to the extent of its authority enforce the observance of the policy statement or plan.

We have submitted heavily to our own regional council (inaudible) to enforce their plan. 5.4 Surface Guidelines in particular. Which are guidelines Your Honour.

[2.20 pm]

MR RENOUF: Water quality.

MR DODDS: Yeah that's water quality. And they just say "Well no they're guidelines. We can't do anything about that. The plan's not robust enough Mr Dodds."

MR RENOUF: So can I just - please can I say something because been very important to me for a long number of years that we do have a RMA 84 in there which does state very clearly the council shall enforce this section onto the councils but they're not doing it. And that's what we want clarification to make certain we are correct in saying this. We need clarification please.

MR DODDS: Yes and the reason (inaudible) 5.4 (inaudible) policy statement. And there's a right to observe their policies. So what we're saying is we would like clarification to make sure that we are right when we say those 5.4 guidelines, surface water guidelines are actually the limits. Because they come within a policy statement.

Firstly we ask for clarification of whether or not, given that 5.4 Surface Water Quality Guidelines come within a policy statement. Are the council required by law to observe them? We believe that this case and further the levels sit within - separate in the guidelines are the standard to be met by any consent. We request that the NPS address this matter and indeed require all consenting authorities to have standards in their Surface Water Quality, not guidelines. We further request that the NPS enforces the observance of policy statements and the plan as a whole.

CHAIR: Now I'm going to ask you a question here. Because I'm not quite sure that the oral explanation you were giving (inaudible) quite coincides with what you've just read out from the text. And I just don't want there to be a

misunderstanding. It's one thing to say the council are required by law to observe it's own plan.

MR DODDS: Yes.

CHAIR: But I thought from the context that I was expecting you to say the council are required by law to enforce their own plans (inaudible)

MR DODDS: That is what we intended Your Honour. Thank you.

CHAIR: Yes.

MR RENOUF: Yes. Thank you.

CHAIR: So -

MR RENOUF: Yes the word is enforce.

MR DODDS: Yeah.

MR RENOUF: That's correct. That's in RMA section 84. The word is enforce.
That's correct.

CHAIR: Yes because the council may well, to the extent that it's in the position to do so at all, observe it's own rules. That's observe, obey.

MR DODDS: Yes.

CHAIR: And themselves. But what you're really talking about in your context is the councils position under section 84 to require, if not compel other people also to observe. That's what you're talking about isn't it?

MR DODDS: That is correct. Yes. Yes Sir.

CHAIR: Alright now I understand.

MR RENOUF: And we hope that you can as a panel, inquiry board, please inform us whether that is actually correct in law.

CHAIR: Well whether that that's within the Board of Inquiry's scope is a matter that we'll have to consider.

MR RENOUF: Yes.

CHAIR: Because you know that the Board of Inquiry is set up with its own terms of reference in certain sections of the Act. And you haven't pointed out any that would give the Board that power so we'll need to look at that. But I think I interrupted you when you'd read your paragraph 4 Mr Dodds.

MR DODDS: That's quite okay.

CHAIR: So if either of you is content you can continue from there.

MR DODDS: Thank you. As stated - page 2 - the council states that robust data was not available to set meaningful standards when the plan was formed. It is now. And we along with others have submitted into the plan review in that it be made more robust as well as standards to replace those guidelines which we've already talked about.

We request that the NPS - require it to be made compulsory for all plans to include nothing less than ANZAC 2000 standards - and these are being upgraded and or reviewed at present I believe - and the New Zealand

(inaudible) guideline figures as minimum standards not guidelines within the 5.4 for Surface Water Quality Standards.

The ANZAC 2000 was understandably not available when the council first started redoing it's plan. Which was a proposed plan for a long time. Well I believe in 2006 it was made a full plan. But there was plenty of time since it was introduced for them to have actually added it had they wished. Along with the (inaudible) guidelines that came in after they started doing the plan under the RMA 1991 as well.

5. District Council Boundaries must be the same as regional council boundaries because it takes away any confusion when boundaries overlap. And the reason that we bring this up is because of the Tarua (ph) catchment one again Your Honour. The regional council - it's within their boundary to issue the consent for the Tarua (ph) consent but when it came to the hearing stage the applicants legal council was using the Taupo District Council District Plan in order to import because it's a permitted activity within the Taupo District - dairy farming. It was discretionary in our area just over the fence. They said that was the material (inaudible) because it was permitted in the Taupo District Plan it could therefore be a permitted activity in the Tarua (ph) which came within the Taupo District Boundary. But the regional council - the river flows through Hawkes Bay so naturally the consent's issued by the Hawke's Bay Regional Council. So that is why we're asking that the boundaries be the same. So the Napier District Council would - it would be obviously perhaps within their area or strictly within the regional council boundary not the Taupo District Council Boundary who don't issue consents. Environment Waikato do. But however it was used for the reason that they were (inaudible) to import a permitted baseline into that discretionary activity. That is why we are asking (inaudible).

CHAIR: Well I think I can tell you fairly confidently that no matter how persuasive you are it's outside the authority of this Board of Inquiry to have anything to do with District and Regional boundaries.

MR DODDS: Yeah.

CHAIR: There's another body that does that. And I think they're called the Local Government Commission.

MR DODDS: We accept that Your Honour but it was worth a try.

We would like to take 6 and 7 as read. We don't wish to change that in any way.

MR RENOUF: I want to talk to it.

MR DODDS: (inaudible) We don't want to talk to it because we don't want to change it.

Number 8 has an addition. This (inaudible) shows the (inaudible) of testing water below just a few centimetres under the surface. Quite clearly the whole column, the whole water column needs to be tested, not just a few centimetres under the surface when people are doing their monitoring in order to (inaudible) how well the contaminants have mixed.

CHAIR: I think you made that clear in your original submission.

MR DODDS: Yeah.

MR RENOUF: Very good. Thank you.

MR DODDS: (inaudible) algae map and map algae and the sediment need to be tested as well so that a complete picture is obtained. During the height of summer that which is left in the water column is just what is surplus to the algae and aquatic plants need. And that's what's being tested. An awful lot of it is locked up in the algae. And indeed many, many times more can be locked up in the sediments. And that's not being tested so what we're saying is to test just a few centimetres under the surface is not giving us a true picture. And we request that the NPS address this matter by requiring all authorities to carry out a full test as above as a standard or rule in their plans once again to apply to all.

MR RENOUF: Number 9.

CHAIR: I think number 9 we can say that's outside the Board of Inquiry too.

MR RENOUF: Is that - so you can't have that in somehow to request the regional council's do better sampling.

[2.30 pm]

CHAIR: Oh no I'm not talking about what you've just read.

MR DODDS: Yeah.

CHAIR: I'm talking about the sentencing of number 9.

MR RENOUF: Oh sorry.

CHAIR: That's a matter for Parliament.

MR RENOUF: You can't put forward any recommendations?

CHAIR: No. It's nothing to do with the content of an NPS. So you can come to the next one.

MR DODDS: Thank you. This is additional material. The reason councils have a duty to ensure that all the river is safe for recreation we say (inaudible) not just those parts that suit them. RMA sections 15, 17.1 and 84 we would see as being pertinent here.

MR RENOUF: Number 12.

MR DODDS: 11 as stated. Number 12. In the Hawkes Bay Regional Council Regional Resource Management Plan 5.4 Surface Water Quality Guidelines states that all waters are K-E and C-R where appropriate. We seek clarification that the - not sure just what this is.

MR RENOUF: That's RMA.

MR DODDS: The RMA third schedule clarification applies to all Hawkes Bay waters except farm ponds. We ask this because if it does then any third schedule classification for - that is natural waters for fish, fauna etcetera, apply to that same water where appropriate. I believe the wording is that any one of the third schedule waters apply to a particular matter then the others, if they exist apply to it too. Provided that is that its in the plan. So that's the reason for asking for clarification because it comes once again within 5.4 Surface Water Guidelines. Whether it is physically an enforceable standard just like the one before Your Honour. Because if it is there's a whole lot of third schedule standards which may be applying to these consents which are not now. As well as nitrogen, phosphorous and potassium.

13 as stated. 14 as stated. 15 - if one standard for water quality exists New Zealand wide then there will be huge savings. Huge savings in time and money because we seem to have - it seems that regional council's tend to interpret the RMA (inaudible) conservation etcetera differently from one another. If there was one set of standards, rules, everything that applied to all of them, if it was there in black and white they'd never have to worry about it again. Huge savings in time and money.

We request that this be the first issue dealt with by the NPS as this alone will revolutionise water quality. We believe because standards will be in place and no-one can argue with them. Applicants will be less likely, if they form more robust plans, to step out of line. I don't think anyone likes seeing dairy farmers in the papers being prosecuted. It's not good for our image quite frankly. And sooner or later one of our overseas buyers is going to twig on this and they're going to say "sorry." And the rest is history.

16 goes along with 15. 17 - and we touch on urine again. Until urine is recognised as a contaminant in its own right the issue regarding 10% of one cows annual production of nitrogen and the consent is regulated and the 90% which is not permitted. The 90 (inaudible) being in the same paddock is not regulated. So what we're saying is that the dairy farm urine and dung as in nitrogen, urine a form of urea and given the magnitude of the problem associated with dairy farm (inaudible) and why it really needs to be a contaminant in the consent in its own right. That is urine as opposed to other forms of nitrogen. We're saying this is a ludicrous situation. And frankly not to regulate the 90% and deal with it from a leaching point of view is a crime.

We ask that this issue be not only immediately address by the NPS but made public. Such is the magnitude of the issue. The 90%, given the

(inaudible) exactly the same product, given that a non-compliance of the 10% attracts huge fines and contravenes section 15.1(b) and therefore cannot be permitted as this immediately contravenes section 15. That's what we're saying. If you're going to prosecute someone for a non-compliance (inaudible) 15% (inaudible) exactly the same piece of land, for exactly the same product as what cows (inaudible) in the paddock then surely that's non-compliant as well. It leaches exactly the same. It's exactly the same product. We can't see the sense in it not being so.

MR RENOUF: 18.

MR DODDS: 18. We see it that it is the intention of RMA 1991 that water quality being (inaudible) maintained or (inaudible) enhance. There is a requirement under RMA section 17.1 to mitigate degradation occurring and in turn RMA third schedule requirements apply to all main waterways provided that it is in any one plan. Because mention of the plan as I understand it then it applies.

We request that the NPS address this matter so that C-R applies to all main waterways in New Zealand along with A-E. That is aquatic ecosystems and contact recreation.

19. We request that the NPS also acknowledges in conjunction with RMA 7(h) and RMA section 14 the Health Act Drinking Water and the Conservation Act Native Fish when addressing water quality issues. RMA 7(h) is we see it statutory and section 14 of it as well.

20. And we've touched on this already Your Honour. A ten year period for regional plans given the rapidly involving agricultural scene. Businessman factoring domestic discharges (inaudible) is too long. We

ask that a five year plan be opposed by the NPS as the ten year plan is very often out of date before its time is up.

21. When the guidelines are replaced by rules - standards, the objectives can easily be met, as the rules and standards will be within the policy statements, which are to be met and observed under RMA section 84. We would ask, we request that the NPS clarify and address the above points again on section 84.

CHAIR: Well thank you Mr Dodd. We are going to interrupt you now I think, because we have the scheduled party that was going to sit next, and we haven't heard all that you have to tell us, because we have some questions for you perhaps. So that - what we'll do is invite you to take your seat elsewhere in the room, so that we can call on the Federated Farmers who have been waiting a little while, and then we'll give you the opportunity to return, at the previously scheduled time if that's satisfactory.

MR DODDS: Thank you.

CHAIR: We appreciate your cooperation.

MR DODDS: Thank you.

CHAIR: Good afternoon. Thank you very much for coming. We've already read your original written submission, and we are looking forward to hearing in a quite informal way what you wish to say in support of it. You don't need to stand, or go through any formalities at all you can just present the way you would like, and we hope that we may have an opportunity to have some discussion with you when you've concluded presenting. Now which of you is going to speak first?

[2.40 pm]

MR MCKENZIE: Thank you Mr Chairman - certainly and we encourage a lot of questions at the end so that's how we want it, we'll just very briefly I'll introduce ourselves, and show a few points.

I'm Lachlan McKenzie, Federated Farmers National Board Spokesman for on-water issues. I hold a qualification of Bachelor of Agricultural Science from Massey University. I'm a member of Federated Farmers for too many years now, and I'm a farmer and forester in the Rotorua catchment area - Rotorua area.

Today I have Brigid Buckley from Federated Farmers Policy Advisor, and Kevin Mitchell here on my right is Provincial President of Hawke's Bay Federated Farmers. Both Miss Buckley, and Mr Mitchell are available to answer questions.

Federated Farmers welcomes this opportunity to present this statement on the proposed National Policy Statement on freshwater management. The comments expressed in this statement are representative of Federated Farmers member's views, and expresses our experiences with management on freshwater issues throughout New Zealand. It reflects the fact that freshwater management, as well as the statutory plans, and

To be read in conjunction with
the tabled evidence/statement

policies influence our members on a daily - on a daily - as farmers, and land owners throughout New Zealand.

This statement was formulated after consultation with our members, policy staff, and industry groups; therefore it is important that this statement is not viewed as a single statement from me, or colleagues here, but rather as a collective one that represents opinion of all our members.

I wish to provide an overview of farming, and freshwater management in New Zealand, as well as outline the Federated Farmers' involvement to date in freshwater management policy development and initiatives. And then to address those matters of most concern to Federated Farmers in relation to the NPS and the relief sought.

Freshwater is a key component of our farming business. Our members take our obligation to use water efficiently seriously and aim to ensure that our activities do not compromise water quality.

Federated Farmers actively promotes and encourages our members to use good farm management practises and to ensure that the quality of our water resources is maintained or enhanced. As part of this we actively participate in planning and policy and other government processes such as the Pan Sector - Primary Sector Water Partnership, and latterly the Land and Water Forum.

We develop and promote tools and mitigate practices that are used by members to address freshwater issues at the farm level. These include campaigns aimed at improving water quality and allocation regimes. And we provide advice and support to members on freshwater management.

Our members are also subject to industry specific freshwater management initiatives, for example, as dairy farmers who supply Fonterra Co-op, as I do, must also adhere to the Dairying and the Clean Streams Accord. The accord requires farmers to take proactive measures to reduce the impacts on quality of water in New Zealand for freshwater bodies by nominated and scheduled dates. These measures include fencing along lakes, streams, rivers, riparian plantings; compliance with resource consents and the implementation of nutrient management plans.

Further, our members voluntarily invest hundreds of thousands of dollars in restoring wetlands, fencing off areas of indigenous vegetation, amenity plantings, erosion control, weed and pest control, and riparian enhancement. All of which contributes to the improvement of water quality that is leaving our farm boundary. And on my farm, I've got thirty percent in native bush, twenty percent in pine trees, and fifty percent in dairy farm. So that's the sort of split that we do have on some of our farms.

Federated Farmers generally supports the purpose of the proposed NPS, however our members do not necessarily support the process by which the NPS statements are derived, or their implementation.

Our members have expressed concern in relation to a number of issues in the proposed NPS and they're outlined in our submission. I will focus on clarifying, and giving context to some of these key concerns.

We support the Government's intention to specifically address issues surrounding decision making on freshwater management under the Resource Management Act at National, Regional, and at District levels.

I will now provide some further clarification on a number of points identified in our submission.

Federated Farmers considers that the focus on the proposed NPS should be on addressing the effects of land use activities, and not only specific land use, or its development. And we distinguish between those two.

The focus of the RMA is on managing the effects of land use activities, rather than regulating the activities themselves. Local authorities are required to only intervene where activities have the actual or potential to result in adverse environmental impacts.

Federated Farmers considers that the reference within the proposed NPS to land use development, rather than to activities, poses the risk of land use being controlled without undue cause. We need flexibility in New Zealand to allow us to continue to prosper.

So, Federated Farmers recommends that the proposed NPS be amended to focus more on addressing the effects of land use activity, rather than limiting land use itself.

Federated Farmers considers that the timeframes set out in the proposed NPS are unrealistic and may undermine this purpose. A large number of local authorities throughout New Zealand simply do not have the staff capability or monetary resources to undertake policy or - and plan the changes or variations in order to give effect to the proposed NPS within the specified timeframes.

It must also be noted that many local authorities are currently reviewing, or about to embark upon, a review process that their respective policy statements and plans, and that their statutory documents already contain objectives, policies, and standards for the freshwater management.

Federated Farmers considers that the specific timeframes may also provide key - may not provide key stakeholders, and those with an interest in freshwater management, adequate time to consider the implications of any proposed policies and standards.

Experience tells us that early engagement can lead to greater levels of stakeholder buy-in, as well as more realistic and workable standards and therefore, better environmental outcomes. And I think a good example of that has just come out on the wire in the last few days is Canterbury and their water strategy - getting buy-in from across sector groups.

Federated Farmers considers that the specific timeframes which require local authorities to prepare, and notify changes or variations in policy statements and plans in order to give effect to the proposed NPS need to be extended considerably.

Federated Farmers also recommends that the proposed NPS be amended to exclude policy statements and plans that give effect to the proposed NPS, or RPS' from undertaking the Schedule One of the process. Why you'd re-do it if you're already complying?

Policies which require local authorities to identify and protect freshwater resources which are outstanding or have notable values are also problematic to us.

The definitions of notable values and outstanding freshwater resources contained within the NPS are problematic as most freshwater resources have either scientific, ecological, biodiversity, cultural, or recreational values. Therefore, as the definition stands, the majority of New Zealand freshwater resources could reasonably fall into the category of either notable or outstanding. Given resource and monetary constraints, it is not

realistic to expect the quality of all New Zealand freshwater resources to be improved, particularly not in the short term.

[2.50 pm]

Instead, Federated Farmers consider that the focus of the proposed NPS should be on identifying those freshwater resources which have the greatest potential to be enhanced through non-regulatory regime measures, such as community based catchment management programmes. It is noted that the contribution of non-regulatory methods towards achieving freshwater outcome is provided by under Policy 7; however we consider that this policy could be further expanded to include industry initiatives. For example, Horticulture New Zealand's Environmental Programme entitled New Zealand Good Agricultural Practise - or GAP, and the partnerships between the community, land owners and local authorities. For example, the Primary Sector Water Partnership and now the Land and Water Forum.

Federated Farmers also considers that any process which seeks to identify and classify freshwater resources should be undertaken in consultation with key stakeholders and the local community. Our members have found that in the past where stakeholder engagement has not occurred, unduly onerous and unrealistic controls have been imposed upon them. This has led to years of animosity, distrust, and litigation between land owners and local authorities. Therefore, we seek that - we recommend that key terms be used within the proposed NPS; should be consistent with those stated in the RMA, which are supported by a body of interpretive case law.

Federated Farmers recommends that the reference to potential values in Policy 1(v) be deleted.

There are a number - there are a range of values associated with freshwater resources that need to be considered and balanced in the decision making process under the RMA.

Federated Farmers is concerned that the proposed NPS artificially elevates the importance of recreation values, above the number of other significant values, including economic values.

It is important that any goals that seek to improve water quality are achievable, cost effective to implement, and in many cases expectations about what can be done in order to protect a particular value are unrealistic, and of high cost to the individual land owner.

Federated Farmers considers that all values associated with freshwater resources should be considered, and balanced against each other in the decision making process under the RMA.

Proposed water quality standards, and environmental flows, and levels should be based on robust science. A science basis in developing water quality standards and environmental flows will help ensure freshwater management goals are realistic, measureable and achievable. New standards developed on a scientific basis will enable councils to focus the effects on actions that will have the greatest impact on improving the quality, and efficient use of water resources.

So the relief sought - Federated Farmers recommends that the proposed NPS better encourage the development of water quality standards, and environmental flows, and levels which are based on robust science.

So in conclusion - Federated Farmers recommends that the Board of Enquiry amend the proposed NPS, to focus on the effects of land use activities, and not land development. To extend the timeframe specified in the relation the local authority preparing, and notifying a proposed change, or variation to the Policy Statement, or to plan. To exclude Policy Statements and plans that give affect to the proposed NPS, from undertaking a schedule one process. To ensure that key terms are consistent with those used in the RMA. To ensure that all values associated with freshwater resources are considered in a balance against each other in a decision making process. And to ensure that water quality standards, and environmental flows, and levels are based upon robust science.

So on behalf of Federated Farmers - I thank you for providing this opportunity to present to you, and I encourage you to ask us any hard questions.

CHAIR: Well thank you Mr McKenzie, we do appreciate that you've come to give us this submission today. And that you've brought your colleagues with you. You perhaps will understand that we are receiving this submission, as being the submission of the Wairoa - Gisborne Province of Federated Farmers - is that right?

MR MCKENZIE: No, this is of the National Board of Federated Farmers.

MS BUCKLEY: I think they submitted a completely separate -

CHAIR: And that's what we thought we were hearing today. On the 30th of June, when we were sitting in Wellington, the Federated Farmers, not any particular province, but the general Federated Farmers was to give a submission, but nobody came. And today we were expecting to hear -

MR MCKENZIE: So there's been - there's been some crossed wires of communication there somewhere, and I just may apologise for that.

CHAIR: Well I'm not - yes, I'm not fussed about the detail of it, but I accept your apology of course. But what we had was, and I'll show you this, so that you know what we were expecting today.

MR MCKENZIE: Okay

CHAIR: And I think we've probably done better than we had expected.

MS BUCKLEY: Oh okay, we have a similar looking one -

CHAIR: Do you?

MS BUCKLEY: With Federated Farmers of New Zealand, not the -

CHAIR: Well thank you for clarifying that.

MR MCKENZIE: Sorry about that.

MS BUCKLEY: Sorry about that.

CHAIR: Now, have you completed what you would like to say, might we ask one, or two questions.

MR MCKENZIE: 30th of June submission then? How did that happen I wonder?

CHAIR: I don't know.

MR MCKENZIE: Okay, we'll ask some hard question in Wellington tomorrow.

CHAIR: We're not concerned about it, we just wanted to clarify who it was that you were representing today. And so Mr Mitchell is representing Hawke's Bay, not (inaudible) no, well -

MR MCKENZIE: So he's, what we have in Federated Farmers is we have 24 provinces, and the national organisation, and whenever we are in the local province we always have the local President -

CHAIR: Of course, impeccable manners. So may I start by asking Mr Prime if he has any questions to ask of you?

MR PRIME: No I don't have questions.

CHAIR: Mrs Vernon?

MS VERNON: Thank you sir. I'm - I've worked off your Federation Farmers submission, your original one, is that right? Just, and it ties in mostly with what you've presented today. In your first one you talk about your partnership which you're undertaking looking at priority catchments where the partnership between, and local government working together. I just wonder what sort of criteria are you looking at, to determine what is a priority catchment, and what isn't, in that partnership? I mean, I don't know.

MR MCKENZIE: That private sector water partnership, basically we went to every Regional Council, and had a, well several meetings with every Regional Council, and explained to them the skill set that we had around our table, and asked the councils basically what their priorities were. And in the Waikato they've come up with a Upper Waikato area, and

North Otago have come with Balfour - hot spot there, and so forth. So every Regional Council came up with a list of what they considered to be their priorities. And then we looked at them, and we looked at them from a sense of where we thought we could enhance what the, so we don't want to do what

Regional Councils, you know they've got their statutory responsibilities, so we offered saying in how we could enhance, and help with regarding to our knowledge, and our skill set, and how we can help in collaboration with the local, with the local land owners, and resource managers in the area. So, it might be to the local Iwi, it might be to the local horticultural growers, or it might be to the local dairy farmers.

MS VERNON: So your definition in this case of priority catchments were actually catchments, that had a level of degradation that were causing concern, rather than, somebody might read priority catchments as being that they're pristine, so I just wanted to clarify.

[3.00 pm]

MR MCKENZIE: Some of them worried that the environment was degraded, so we had to do some remedial action to get it, other areas were saying "look, this is of very high value, and we want to keep it this way" so we didn't have any pre-judged, we don't have a pre-judged standard, we recognise that, and I've done a lot of deerstalking around the countryside, and even up in the hill country, there's some streams there you don't drink out of, and some you do. So we do know that even at the tops of the hills that there is a range of standards. I come from Rotorua now, and geothermal activity has huge effects on some localised streams, so nobody drinks out of that including the fish. So we know that there's a range, so having one standard across the country is not going to be realistic.

MS VERNON: Thank you. I noticed in your 3.2, you're talking about that twenty five years is a long timeframe. I just wondered how Federated Farmers would react if there were some milestones within that twenty five years. Because quite a few submitters have said, you know "twenty five years is kind of hard to grapple with, but if there were milestones along that timeframe then in fact it feels as if there's a sense of achievement, or a goal that everyone's heading to" And weather Federated Farmers had any objections to that philosophy.

MR MCKENZIE: Well we actually look at, often I'd look at, back over even just my farming career, and I look back on my father's farming career before that, and what my grandfather did. My grandfather wouldn't even recognise what I'm doing today as, as being farming. And even just this year when I went to the field days, I went and bought another bit of technology to my wife's disgust to improve my effluent management from the cowshed. So even though you know, we've only been fourteen years in the business on my current dairy farm, I've modernised, and upgraded that, probably about 5 times already. So, we do have new technology coming on, I saw new computer technology coming in the other day, that was not even available 2 years ago. So I struggle with the concept of having regulation in there, I want to ensure that we have flexibility, that farmers will adopt, and can adopt new technologies. Sure we need, there's some milestones along there engaging water quality, so if you got some scientific monitoring, and that's reported back to the community of direction of travel, again I'm sorry I use Rotorua as an example, but having lived, and breathed it for about the last 10 years, I've got a little bit of knowledge. We've seen there the sediment in the Rotorua Lake is improving, and the scientists tell us that there's a delay between what the sediment tells us, and what the water column tells us, by about 8 years. So if the sediment is improving, and decreasing in concentration, then we

know that in 10 years time, the water column will be far better than what it is now. So that's the time delays that some of these water bodies have, 25 years in geological time is nothing.

MS VERNON: Thank you. And going over to, and you've sort of touched on two other areas that I wanted to ask a question, you've made today, and in your original submission, the importance of science, but as you've also highlighted in just your last statement, you know, sometimes we don't always have technology available now. What is the Federated Farmers opinion about using the precautionary approach if we don't have a scientific basis for making a decision, or dealing with water quality particularly?

MR MCKENZIE: One of the wise councils that I had, suggested to me, when I was in Otago recently, and the Otago Council had brought out a suggestion about how they would best (inaudible) riparian strip fenced off, and they have without any rule changes, all they did was highlight the issue before the last winter, and about 80% of farmers immediately took it up, and did the practise. And they said well "why is that" and the farmer said - he said "well it passes the sensibility test." There was nothing, well there was some science behind it from a council, but they hadn't articulated that science to the farmers, but the farmers when they looked at it go "well, yes that makes sense of course we'll do it for the good of the community." So there's some science based in there, but it inherently has to, if it doesn't make sense you're not going to get rapid uptake from, you know from, even when there's controlled regulation or whatever, if it doesn't make sense it's not going to happen. But if it makes sense, so there's an element of good science there, there's an element of gut feeling, and there's an element of good farming practise, that would fit into the system. Does that answer your question?

MS VERNON: That's fine. You also raise the issue in today, and in your original submission about this issue of regulation, and I'm just curious about the fact that you stress quite heavily that in fact you don't want regulation, but without some bottom lines, how are we going to know whether people are actually, or not people, how are we actually going to help the 20% that are not going to quite make the grade. Don't we need some sort of bottom lines where there are some rules, or a line in the sand?

MR MCKENZIE: Well I think we used the word 'permitted activity.'

MS VERNON: No you actually, you don't in your original submission, you talk quite strongly about, you do not want regulation you'd much prefer non-regulatory "The federation strongly supports industry led non-regulatory methods for achieving the objectives of the NPS."

MS BUCKLEY: I think just an example of something that we're going through at the moment, there's been an issue raised with water management, and yeah - there is the threat of regulation coming, and quite often that's a bit of a stimulant for us, and we've got together with Councils, Fish and Game, DOC, the three land owners on board, Fonterra and we're working together on something, and it's managed to engage those people at that, that level, and get them actually working together, and we find that's quite effective, rather than just having a bottom line, because you often find that farmers are like in this instance farmers are complying, but they need to do a bit more, and it's actually us pushing them, and encouraging them to get things done, that's working a lot better.

MR MCKENZIE: The permitted activities, like you know, the Waikato effluent disposal, land disposal is permitted activity it still has rules around it. You know, we're permitted to drive on the road, but there's some rules around that, so, it's - I think there's a difference between - in my mind distinguish

the difference between regulation, and rules. So the regulation, under the RMA the hierarchy of permitted activity down through the system, and so we much prefer a permitted activity with some very good rules associated with that and so that as long as you can abide by those rules, and then you don't have to go through compliance costs of having to get a consent. So that's our focus in that regard.

MS BUCKLEY: Now Sir just to add as well that when you're dealing with what I found dealing with a lot of farmers myself is a lot of people actually don't understand the regulation and it's worded - it's very hard to interpret and I mean often that leads to a bit of distrust and they hear the word "resource consent" and rather than viewing it as you know something that you just need, it actually scares a lot of people, and so maybe you need to take that fear out of it somehow.

MS VERNON: And on your issue of 3.12 Land Use Development and right through today and particularly this original submission, you make a heavy focus on that you don't want the NPS focusing on the effects of land use development, rather you want it on the effects of land use activities. Now, isn't it really a little bit of both because if I look at the forestry conversions for example in the Waikato catchment I mean if you just focus on the effects of the land use activity, we all know that to convert 50,000 hectares into pastoral farming from forestry we cannot manage the effects on that river, we just don't have the technology, the best practice yet - it's coming. So isn't it also then a little bit about both and it depends where you are in New Zealand and what sort of development. I could think of city and urban areas for example the same could apply as well. You know on the waterfront for example, you've got open parks and people want to suddenly build houses. Isn't a little bit of both of those elements?

MR MCKENZIE: A landscape in New Zealand has dramatically changed in the last 150 years in particular and it will change again, given you know good stewardship and good management. I know on my farm that when I purchased it as pasture, that I put 50 hectares of that pasture back into trees because I considered that was to be good management. That was no subsidies, no compulsion, that was from my basis from my economic model thing from my desire of, outcome, of what I'd like to have from the environment on that piece of land. And so I think in the long run those decisions are a whole lot better if we have the right steerers in there and the resource owners can manage that a whole lot better than dare I say at some central planning. Some of us will get it a bit wrong, but will probably get it about 80% right. But if we all have to do one thing and if that's wrong, then it's a 100% wrong.

[3.10 pm]

MS VERNON: Thank you.

CHAIR: Mr Harding, any questions?

MR HARDING: What proportion of New Zealand farmers do you represent as Federated Farmers?

MR MCKENZIE: What do we have?

MS BUCKLEY: The proportions do not tell you but it's 27,000 members, member families, that we represent.

MR MCKENZIE: We estimate it's - we don't have a database of how many farms there are - but we estimate of the business units you know the different sectors and the dairy sector is over 60% but you know overall we

estimate it's about 50%. There's some squeakiness about - you know we don't -

CHAIR: I understand that and I wasn't expecting an audited number.

MR MCKENZIE: If you could tell a dairy farmer we would be grateful because we could knock on the door and say that you've become a member.

CHAIR: Well, for all of the good that you achieve, and you've been rightly telling us about that and you're entitled to come and skate about that, that's fine. There's quite a lot of farmers that you don't represent and possibly one of the reasons that you don't represent them is that they are not persuaded of the value of these important things that you're doing and encouraging all your members to do. In terms of your own membership, how effective do you think you're being in this aim that you have as you tell us in paragraph 7, of ensuring that the members' activities do not compromise water quality?

MS BUCKLEY: I know that with the - when members do get into trouble or anything there is a lot of support networks for that, is that correct? I mean there's one case of prosecution in Canterbury of a member and there was a lot of support from the Federation to get that person up complying, get them on to the right track and even to use as an example of how you can improve and to watch out because this will happen, so you better..

CHAIR: This is part of the being proactive?

MR MCKENZIE: Yeah, social networks and social pressure is actually huge. Particularly in the rural community, everybody knows everybody. I know in the Rotorua catchment there's 26 farms and I know every individual one of them and I know the systems that they operate. And so there is a huge

social pressure from other people at the rugby game or at the barbecue at Christmas time or whatever. You know someone will sidle up to people and say "hey come on you're letting the team down." So there is - and that's how society moves. So when we say that, is what we're saying is we, for water quality purposes, it's actually better to get the masses to move, you're always going to have 10% or a percentage of pariahs at the bottom end. There's always a percentage of people that speed in motor cars or break the rules, but the average speed limit, the average speed of motorists now is coming down. You ask the Police about the revenue that they're getting for speeding tickets is coming down compared to what it was 10 years ago, and so the average speed has declined because the average motorist - that's going to be a whole lot better for safety of motor cars. Exactly the same happens in farming, if we can get the average practice to improve, that's going to have a bigger effect than targeting the 5% of recidivists. And that's regional council responsibility to do that. We don't have any regulatory controls and things we can do. We encourage regional councils to put good systems in place and we will pop them.

MS BUCKLEY: Also think too like there's a couple of cases where we're involved where we don't have members, but we still you know we'll pick up the one toward the end and push them through as well and encourage them to pick up their act as well.

MR MCKENZIE: Because if we're fighting, what we're basically saying is if we're fighting with the regional council's litigation through RMA process somewhere in Court, we're less inclined to be in a collaborative mood to say, to go and talk to the guys and say "hey, you better go and have a visit down here, Fred down the road down there he's let the team down, we better go and sort him out." So if you get a good working relationship with the regulators, we'll go as a team and go and help sort him out. And sometimes, you know some farmers that I've talked to, it's just sheer lack

of knowledge that's let the team down, you know. And you ring them up, go and have a cup of coffee with them and say look. And they say "well how do you know about this?" and I'll say "well, I do a fair bit of reading and you know (inaudible) know it and you know you're not allowed to do this any more." "Oh," and they change.

CHAIR: Well, all of that's fine of course. And what you say in your paragraph 10 is that the Fonterra Accord, which is obviously something that you've been working with as another tool to that encouragement, requires proactive measures and nominates a scheduled time. And because the process that you're describing is kind of a voluntary process and a networking process that can only stand because there's something to back it up in the extreme cases would it be sensible for the NPS, which is what this Board is considering, also to require conformity within a specific time?

MR MCKENZIE: The devil is in the detail but there will be some of that, yes.

CHAIR: I'm not saying that necessarily an NPS could fix what the time for compliance would be. That might have to be responsive to regional councils asking for the same sort of flexibility as you were asking for.

MR MCKENZIE: Because bear in mind we do recognise that there are some water bodies we'll never get, as long as we've got permanent habitation along them or whatever, to get to the standard where we can drink it without having to treat it. And so there is a range of standards. What we aim to do is to have, and we know under the RMA there's trade-off, trying to maximise our economic wellbeing and minimise our effects on the environment at the same time. And there will be trade-offs there.

CHAIR: I don't think that that's what's going to be the aim in New Zealand in the future because that puts the two things on the same value level and that's

not really what the RMA says. It says you can aim to do your own activities, so long as you are not harming the environment. That's not quite the same, is it?

MR MCKENZIE: Well, with all due respect, if I'm sitting in a hammock having a cup of coffee, I'm having an effect on the environment because the (inaudible) underneath me is now in the shadow instead of a warm environment or whatever.

CHAIR: So I don't know that a food production kind of answer is going to help me.

[3.20 pm]

MR MCKENZIE: Food production will have an effect on the environment and we accept that. It has, it will have an effect on the environment, there's nothing we can do about it that you know we can minimise and reduce the effect but we do know and the science tells us that intensive food production will have an effect, more of an effect on the environment, than say tree (inaudible). And production trees have a bigger effect on the environment during harvest process than what a permanent vegetation does. So as soon as you start to use the land for anything other than looking at it from a bush point of view, we will start having an effect on it. We know that.

MS BUCKLEY: Going back to timeframes and setting or providing some sort of goals and milestones. Just from more of like going into the catchment and actually looking at what the problem is. And the problems in catchments are different depending on whether intensive dairy farming is there, whether not so intensive dairy farming, irrigation, soil types; there's a range of factors and kind of looking at those and really addressing how

long it would take to turn a stream around. Lake Taupo I think that's 75 years they've put a timeframe on that, and you know that may be unrealistic for others, it might be more you know 15 years might be for other ones but I really think kind of getting in - it's more of a low level the timeframe setting for turning things around.

CHAIR: Well it's all very well for people to say it's unrealistic to clean up our rivers. And it may well be unrealistic in the short-term but as the Lake Taupo example that you've just given me reminds us, what can't be done in the short term can be done in the longer term if the people get to it. Federated Farmers wouldn't disagree with that, would they?

MR MCKENZIE: No, but what we do base that on is base it on absolute good science. and a lot of water bodies, I was in Palmerston North recently and they said that the Manawatu River was declining and so I said what's the value that you're wanting to enhance. It took us a while but we eventually nailed it down to the fact that there's a swimming hole above Palmerston North that the local community like to swim in and so it was an algae growth that was in the river that was causing the problem and so they immediately then said "Aha it's nitrogen we told you that the dairy farmers were causing the problem with the nitrogen." But when you actually look at it, the algae takes nitrogen, phosphate, sunlight, temperature, a whole raft of things to grow. You also find that if we can control that phosphate in that river and plant some more riparian strips in the streams going into it we will decrease the algae growth. Those things we can do, nitrogen is a lot more problematic and a lot harder to get control of, so if we can focus on looking at what the real science is and find some solutions then we start to make some progress as we work towards fixing the nitrogen issue coming out of the horticultural crops and the dairy farms. So those are sorts of steps - as long as we start to make some progress and we're working in the right direction, then the community will support us in doing

that. We're not saying there we can't do anything and we refuse to do anything and just carry on what we did, what granddad did. What we're saying is we have to base our direction of travel on the science knowledge that we've got and recognise that as we get more science, we're going to have to tweak, modify and adjust. It's just the same as in Rotorua. We've done a trial there on one stream, where we've estimated that between 2 and 10 hectares of watercress will take 60% of the nitrogen and phosphate out of that stream and let the - you know. It's one heck of a load off Rotorua lake. Now if we can do that and we've got the land there, we've talked with the owners of the land to do that, will then allow intensive farming to be above, but the effect on the lake is less than what it is now because we've actually harvested those nutrients before it gets in the lake. Now that's using good science and using pragmatic solutions to fix the problem. That's not to change the land use, we could actually turn the land above it from a sheep farm to a dairy farm and take 10 hectares out and put into watercress farm, and we'd have less of an effect on the lake. That's smart use of land to me because it increases the use, provides Auckland with a source of watercress and it decreases the nutrients going into our lake. That's what I call a solution based on science.

CHAIR: Well, thank you. Thank you for coming and explaining the submission, and for taking part in this exchange of understandings about, we appreciate that. We are now going to take an afternoon break and then we can I think resume hearing from the submitters that we were hearing before. The Hawkes Bay Environmental Water Group and Mr Renouf.

ADJOURNED [3.24 pm]

RESUMED [3.52 pm]

Audio file: dpm 0145

CHAIR: Now, Mr Dodds, Mr Renouf, thank you. And you can now pick up where you left off when we were to hear from the Federated Farmers.

MR DODDS: Your Honour, in that regard, given that David has a bit to get through and there may be a time constraint. If David could perhaps appear first, as it were and then, provided there's time left then I can finish off my two typed pages.

CHAIR: Well, just as you'd like, if that suits both of you then we're content with that.

MR DODDS: That would be fantastic, thank you.

CHAIR: So, Mr Renouf we're now going to hear your address in support of your own personal submission, is that your understanding?

MR RENOUF: Yes, thank you.

CHAIR: Thank you very much.

MR RENOUF: And I also would like to comment on our group submission too please if I may.

CHAIR: Of course you may.

MR RENOUF: Thank you.

CHAIR: We'd be grateful for any help you can give us.

MR RENOUF: That's excellent. Now, my name is David Renouf and I have been probably active in water quality for at least ten years. I come from an agricultural background of farming and I ended up at the Apple and Pear Board for ten years. And the apples in the plant were moved by water, so that began a bit of my interest to do with a little chemical we used to put in there called chlorine. And my father used to fish the Tukituki until it got degraded and we ended up at Waikaremoana and I stood on the bank with Dad and I said, why isn't the Tukituki like this when we go to Waikaremoana I say, we can see the bottom, see the trout. And of course that developed my interest in the water quality, as a trout fisherman.

Now I would like to go through this and read this please and of course my submission is just straight on one subject virtually and that's Variation 5, as you're probably aware of my submission. It's a direct quote from page 12 of the Waikato Regional Plan Variation 5 document. And it's quoted, "As the total inputs of nitrogen to soil system increase the pool of available nitrogen in the soil also increases and nitrate is more likely to leach. Research has identified a number of sources of nitrogen leached from pasture systems with the major contributor being animal urine and (inaudible). And the other minor contributor is being animal dung and effluent from dairy farms and the direct leaching of fertiliser nitrogen. Animals effectively concentrate the nitrogen by grazing grass from a large area of paddock excreting much of indigested nitrogen back onto the soil in a concentrated urine spot. This concentrated spot of urine contains far more nitrogen than the grass can take up. And the soil bacteria over a number of weeks convert the excreted urine, urea, into ammonia and then nitrate. Once the nitrate is formed rainfall events that wet the soil enough

To be read in conjunction with
the tabled evidence/statement

to cause damage are likely to cause nitrogen to leach below the depth of the grass roots in a nitrogen remedy becomes less likely.”

Just like to digress a little bit. A lot today has been on about riparian strips and that's sort of a little bit to it. That where you have a riparian strip it does a good job with collecting sediments. But when the nitrogen goes down, when you've got red metal, it goes straight down into the groundwater and it misses the riparian strips. The riparian plants do pick up nitrogen but the ability to pick up it all is limited by the plants ability to use it. So once the plant has taken up the nitrogen to the plants ability then the rest is leached and I think that's an important part about riparian strips.

The amount of nitrogen leached by animals grazing is related to how much nitrogen an animal digests. As the more of given feed that animal eats, the more nitrogen is excreted onto land and urine and faeces. The issue of increasing nitrogen leached from intensified of pastoral agriculture is causing largely from the practice that to get greater production necessary to stay competitive, it is necessary to either get more production from each animal or more animals on land or ideally a combination of both. Either way both practices result in more feed being consumed and therefore, more urine spots leading to greater nitrogen leaching. Put simply, more nitrogen in equals more nitrogen out, all things being equal.

Now, the next point I would like, if you have a copy of that, and that's the dairying declining water quality document. Could you please go to page 27. And you're looking at Figure 8, which is on the bottom of the page. And this is something I'd like to just show you (inaudible) document. Good, excellent. Now, relationship between stocking rate and nitrogen run-off; I think that's very important that graph. Shows graphically what

I'm on about. So, I continue reading my submission. At the simplest level controlling nitrogen is a simple matter of controlling how many animals graze a property. And that relates to that Figure 8, the more animals you put on, you get more nitrogen run-offs. So that's what I'm just trying to emphasise that.

However, given that the production and therefore nitrogen leaching can be increased by feeding the same number of animals more food the amount of feed an animal receives also needs to be controlled. And that's a very important point that; it's all right having more animals on but you actually have to control the feed given to them because the more that gets on. So the overall nitrogen leaching is then to be maintained. That document is referenced in my material, on Reference 1.

Now the next point is (inaudible), 1970 reported steady rate of infiltration rates of between 60 and 600 millimetres an hour on short grazed pasture on yellow round pumice soils in Central North Island. And that's referenced on two and that's out of Freshwaters in New Zealand document. This soil type is similar to the Upper Mohaka River Catchment of Patartarua (ph) Catchment so there is no reason why - and this is why my submissions about Variation 5 controls, conditions, standards cannot be applied to this catchment. Also, gravels have an extremely high rate of leaching therefore, I request that Variation 5 controls, conditions, standards be included in the NPS for freshwater management.

While we're on that, I have a sample. That is not pumice, this is red metal, to show that some dairy cows are sitting on this red metal and that's what it looks like. And I couldn't put this big rock in there, there's supposed to be a big rock in there as well, which I left out purposely because it just would have filled that up a bit. And that actually should be in that sample which I took out so there's a rock (inaudible).

The gravels above the unconfined aquavit have little or no capacity to absorb pollutants. Bacteria and other microorganisms travel freely through these gravels. Therefore, land uses which might give rise to such pollutants should be controlled and that's Reference 3. And that is, as somebody said today, I've heard someone else that's the Heretaunga Plains ground study by (inaudible) Nuclear Science Ltd. That's where that quote comes from, the protection of unconfined aquavit area.

[4.00 pm]

Many of these areas of gravels have dairy farms on them and as the photo shows there are places when these farms and the gravel is right to the top. These gravel areas as the quote states have little or no capacity to absorb pollutants and this of course pollutes rivers because there are no control measures on urine being discharged by cows in the paddock. Now, the photo that you've got, that coloured photo please. That's the coloured photo you've got of the red metal I've just shown you in that container. There are dairy farms sitting on that, I've sent you all a copy of that. You've got dairy farms sitting on that.

CHAIR: Thank you.

MR RENOUF: So I request that the NPS for freshwater management document must address the issue of controlling 90% of nitrogen being discharged from cows onto the paddock which is causing leaching. As I said, I provided the colour photo to show exactly what the gravelled soil looks like. It shows clearly why this has little or no capacity to absorb pollutants. Therefore, a need to have this issue addressed otherwise this problem will only increase.

Now, see Reference 4. Request that NPS for freshwater management addresses the suitable soil types for farming activities. Nitrogen fertiliser, see Reference 5. Now I've given you that Reference 5 to show, and I'll read it through it first and then I'll just go back to the reference. I've photocopied this data because it shows why intensified dairy farming has become a problem. The figure 5.2, at reference 5 shows the comparison from 1996 to 2002 which precisely shows why our waterways have become so polluted. This graph shows the enormous amount of nitrogen used in 2002 from 1996.

The regional plans have a 10 year revenue as Bill said, so this lag time will continue if the regional councils are not proactive to bring forward plan changes to address the issue of excessive nitrogen and phosphorus in waterways. So therefore, I request that the NPS for freshwater management document instigates regional councils to review their plans now to address the issue of excessive nitrogen phosphorus from waterways. That reference 5 shows the dairy farming more than 10 times that was used in 1983.

Tons of urea fertiliser applied in New Zealand 1983 to 2002 and that's reference 6. Again, it's barely off the scale on that reference 6 but in 2002 it's exceeding 300,000 tons used on 2002. I'm making the point here; all of a sudden we've had this explosion of use of nitrogen and urea which it wasn't there previously and all of a sudden it's hugely increased into these waterways. Between 1983 and – as I said, it's an 18 fold increase in the amount of urea fertiliser applied in New Zealand.

No wonder why waterways of New Zealand show more areas of stinking algae mats in areas are unsuitable for recreational use. The point I'm making; unless this issue is addressed now under NPS for freshwater

management there is a possibility of losing our clean, green image which will impact on overseas visitor numbers because that's why many people visit New Zealand to see our pristine environment. Request that NPS for freshwater management document addresses the cause not the (inaudible), the cause of the issue which is mainly land use. Tons of phosphate fertiliser spread by selected farming, select sectors.

Now it's interesting, I've focused on dairy farming but it's not only dairy farming when you look at my reference point 7. When you look at that reference point 7, sheep and beef cattle actually use more phosphate fertiliser than dairy farming. So, it's interesting to see that, so it's just not dairy farming. The data shows that sheep and cattle farming use high amounts of fertiliser, phosphate fertiliser. So the dairy farms are not the only type of fertiliser to farming type to use high amounts of phosphate fertiliser. Request that the NPS for freshwater management document must address the use of fertiliser on all types of farming sector.

And my last little thing which I have to put out; make sure that multiple, and this is vital, because at the moment the Hawkes Bay Regional Council plans allows a dairy farmer to put on one application of 150 kg of nitrogen per hectare, per year in one application. And I stood up at the Hearings Committee and I got downed, we're not going to do that Mr Renouf we don't do multiple applications. That's part of the reason why we've got the problem. But you can put a 150 kg per hectare by year, which is too high anyway, but it must be spread across the whole of all those months and broken into groups of nitrogen kilograms. At the moment many dairy farmers are putting on 150 kg of nitrogen per hectare and then moving the application device to the next hectare and that's part of the problem. So, make sure that multiple applications of fertiliser is instigated and that no more than the plants monthly uptake should be applied thus ensuring that

this is a cost effective method for the farmer and thus ensuring the protection for the environment.

Now, I'd just like to say one thing which I have found, and it's not in my submission, and it may be disallowed. The fact I've been sitting here all day as you know, and no one has mentioned the issue of containments in our storm water. I'll just raise that point.

CHAIR: Well, you can be confident because I'm (inaudible) that we've had plenty of people talking to us about containments in the storm water.

MR RENOUF: Thank you, thank you.

CHAIR: Especially some ladies from the Oakley Creek.

MR RENOUF: Thank you. This last piece is 7, at the bottom which I believe I've highlighted in yours as well. It's been estimated the waste generated by 3,000 dairy herds in the Waikato River Catchment is the equivalent to the waste from 5 million people or nearly 50 cities the size of Hamilton. Just thought I'd share that with you. Thank you very much.

CHAIR: Well thank you Mr Renouf. Now, we've heard your address in support of your submission and we've heard Mr Dodds address in support of the Associations submission. And have you now completed what you want to say, should we now go to questions or have you something to add Mr Dodds?

MR DODDS: Your Honour, yes I'd like to quickly go through. Most of them have already been touched on but we have some requests which I think we could place before the Board.

CHAIR: Thank you.

MR DODDS: So, if we go to the last lot, with the additional information that we sent. And with the corresponding piece of paper that goes with it we've just got additional material evidence of motion written on it. And I'll be quite quick.

CHAIR: I'm not sure that we've got it Mr Dodds.

MR DODDS: Oh goodness me.

MS VERNON: No, we haven't.

CHAIR: There we are. It looks as if it's here we can have a look at it in a moment. Thank you.

MR DODDS: And Your Honour, I'll just deal with the four reference points off the first page.

CHAIR: Thank you.

[4.10 pm]

MR DODDS: Starting with reference one and David has probably already touched on this but I'll just complete it. We request that all territorial authorities have a full list of soil types within their boundaries and the associated maximum holding capacity and that no irrigation takes place that will exceed that particular soils maximum holding capacity. That is if a soil has a maximum holding capacity of say 8 millimetres and we're talking Red Nettle here, and it has a 50% moisture deficit that is that the soil holds 50% of the water before it starts leaching that is its moisture holding

capacity. Then only 4 millimetres can be applied and the reason that we actually state this is because a good many travelling irrigators actually put on 15 millimetres or less in one pass. So in that situation if only 4 millimetres - if its in 50% holding capacity and 15 have been putting on, 3 quarter's of that water is going to leach or is liable to leach and therefore liable to take whatever nutrients especially in a diary farm situation like Red Nettle through the groundwater. And that's actually a very important issue.

MR RENOUF: Just to make that point, we actually have put water into here and we found that it only held about five - water holding capacity of this - I know it's not compacted, you're going to ask me if its compacted, it's not compacted. It's not compacted it's loose but I put 10 millimetres of water in that and 5 ran out so the capacity of that when its dry is only about 5 millimetres of water capacity.

MR DODDS: It's mostly stones. So you've only got that small proportion of ash soils or whatever you have at Hawkes Bay alluvial soils on top of it. And the rest of its stones, stones don't hold water so it just naturally runs through. It just doesn't have the ability like a heavy clay soil to firstly attract the water and then hold it like the heavier soil the whole farm will be greater absorption than the stone soil. So we request that the NPS requires the regional authority to make this mandatory in their plans and that is that they have the completeness of soil types and their holding capacity. Reference 2 what we are saying is when figures by way of monitoring are showing that one bore, and this is reference 2, I think (inaudible) we go to reference 2. Reference 2 is, what is happening in the Ngararoa (ph) River in relation to upstream and downstream effects from a dairy farm discharge. And this one dairy farm using the Hawkes Bay Regional Councils figures is showing us that there is 50 tonnes of nitrogen because we know what's above then we know what's underneath because of the sample into the Ngararoa (ph) River. Which just happens to be our

main Hawkes Bay artesian drinking water supply and given the accumulative effect of nitrogen, and this is just one dairy farm. And there's another one that's been there for a few years which is not at this stage showing any definite effect on the river but because of the lag time we know it will we're just waiting.

So what we're saying is when figures by way of monitoring are showing that one bore is as much as five times - actually I may have got that a little bit wrong Your Honour. But that one there actually goes with reference 3 and the whisker on the left hand side shows that as much as five times the world health organisation live in 11.2 milligrams of nitrate per millilitre is actually testing out in that bore on the dairy farm.

And in that Sir, we request that the NPS require all authorities to formulate policy and have standards in their plans that prohibit the contamination of drinking water. It's section 14, Your Honour, of the RMA and I'm not too sure of the section but it's also an offence under the Health Act to contaminate drinking water as well.

Now reference 4 is really a reference to what came out the Hawkes Bay Regional Council's Māori standing committee which have made a statement that 150 (inaudible) on the second page Sir of that evidence it's lined underlined 6.5, "The existing nitrogen loading rate of a 150 kilograms per hectare per year under rule 14 is considered inappropriate." And we would agree Your Honour, for several reasons and one of them is that 150 kilograms of nitrogen per annum is probably double of the plants or the pastures actual requirements for nitrogen during the year. It can take up more but of course that just exaggerates the rocket fuel and what comes out the rear of the cow. The plant can take it up but it doesn't require it.

MR RENOUF: No that's not right, the plant doesn't take it up. Sorry.

MR DODDS: I don't want to argue about that point but pasture and this is using Ravensdown material aimed at around 65 kilograms of nitrogen per annum for same use. For three months of the year the temperature drops below five degrees pasture as a general rule doesn't take up any nitrogen and so for the other nine months naturally they're taking up more nitrogen for that given month. But for the whole year extra requirements are aimed at about 65 kg's per hectare per annum. And also it relates directly to dairy farm effluent discharges as well which at least in the case of Hawkes Bay go on in one application on one day of the year so if it's a 75 kg limit what's proposed in the new consent to Tararua. It goes onto that pumus soil on one the equivalent of one hit on one hectare on one day and if there was ever a possibility that something was going to be leached that would be it. Because there's a number of rainfall occasions during the year and if it happens to coincide with one of them that is going to be leached almost all of it immediately given the nature of the soil.

So we request that applications of nitrogen in any form, and that's not just as in urea from a cow urine this is urea fertiliser as well, be governed by a plants ability to uptake that nitrogen during that period of the year. As I've said it changes for different months and each different temperatures, three months during the winter when it's cold, it doesn't really take up much at all if nothing actually if it gets really cold. And of course that multiple applications is going to be touched on is required to be mandatory for that very same reason that it stops that thing where they're putting on 75 kg's of nitrogen in one hit in one day.

What we're asking for that multiple applications perhaps nine applications for the other nine months of the year. And indeed consents allow for up to three months storage for dairy effluent for that very reason that in the winter it's too cold and too wet so they require a three month storage period so they're not actually putting it on there naturally it's not going to be used so its prone to leaching. In order to minimise the leaching this

To be read in conjunction with
the tabled evidence/statement

would apply not only to nitrogen we would ask that it apply to all components of any (inaudible) fertiliser as well NP and K. And we would require that this be imposed on all plans nationwide.

That takes care of that one Your Honour and if we could just go now to written verbal this is the original written verbal from the Hawkes Bay Environmental Water Group. And it has the reference on the first page it has the references number 6 on them and that goes with the two thirds page with the small print on it. This is the one I'll read from reference to the original material so you've got that one Your Honour?

CHAIR: Not that I'm aware of.

[4.20 pm]

MR DODDS: It is original evidence additional written on it fourth line top of the main part.

MR RENOUF: We've got too much paperwork, we will need a secretary

CHAIR: Well I've got this one that you've just presented already and this is another one?

MR DODDS: This is an additional one. I think I have some spare copies it's not that one that's got the big print on it, this has got quite fine print.

CHAIR: Thank you.

MR DODDS: So if we could go to reference 1 please, and in relation to that if we could go turnover on to the first page on to the second page which has got "38" written on the bottom bit and that's one on there as well. This is part of a report from Dr Olivia Orshall (ph) and it's the estimation of the annual soluble inorganic nitrogen load in the Tukituki River at Shag Rock. And we wish to make the point that that varies between 1500 and 3300 tonnes per year per annum. In relation to that what we'd like to say is if you're

looking at the maximum figure of 3300 tonnes as we understand it there's 3100 tonnes equivalent going over the Karapiri (ph) dam per annum. And of course the Waikato has many times more water in it and it's really an illustration so the intensification of that nitrogen product per (inaudible) in the river at Shag Rock it's actually quite alarming.

This is part of a major report that has been placed in front of the Hawkes Bay Regional Council done for them. And there is a - we've just had a major peer review done on the Hawkes Bay Environment Water Group Your Honour by Dr Kip Rutherford. We were challenged to put all our material on the table which we did and the regional council would do the same. Now Dr Kip Rutherford in his report stated that this was one of a number of reports that the Hawkes Bay Regional Council had failed to act on. So this is a substantial report and raises serious issues in relation to water quality within both the Tukituki proper and its tributary the Waipawa River. When one considers that slightly more sea is in the water column at this point that goes over the Karapira dam per annum and then further understand that many times greater flow occurs down the Waikato River is cause for some concern. This of course is one of the reports that Dr Kip Rutherford refers to during his peer review of both the Hawkes Bay Environmental Water Group and the Regional Council as being not acted on by the RC.

Since this review took place we acknowledge, Your Honour, that the regional council has taken what we think is marvellous very positive steps to remove both the Waipawa and Waipukarau sewerage effluent discharges from these respective rivers. Hasn't happened yet but they are in the process of buying the land to plant their plantations so they can have land based treatment and discharge which is marvellous.

MR RENOUF: Never told them about (inaudible).

MR DODDS: I was not aware of that, I'm sorry. But we actually, Your Honour, played a major part in that. However the greater issue of the Tukituki and the Waipawa Rivers in relation to other non-point and David's touched on that it's not just sewerage effluent and it's not just dairy farms it's the other non point discharges which are permitted farming wise in New Zealand. And point of source which of course in these ones discharges within the Ruatanika Basin (ph) area still exists and will continue to effect water quality unless addressed. Therefore we would request that the NPS require regional authorities to act immediately on reports others exist in Central Hawkes Bay as I say there are reports they haven't acted on. That being to light such damning evidence as this and that appropriate rules standards and policy statements are immediately incorporated into all plans to prevent such contamination.

Reference 2 stands along reference one sir and I've already mentioned Shag Rock so I won't go there and reference three alongside one and two as well. We got to reference four this relates directly to the DVD and verbal. As we understand the reporting officer the regional manager's opinion the 10% that is regulated by way of the consent when placed alongside 90% which they claim is permitted the effect of the 10% by comparison was less than minor. And this is what we stated during the hearing for Taharua (ph) and as we understand it what they did was they knew that they had Policy 20 sitting alongside which was a policy statement and had to be observed. So they actually got around that by importing the permitted base line which means they didn't have to deal with the 90% they only had to deal with the 10% so they set the effects of the 10% was less than minor when comparing it with the permitted activity. And they went ahead and gave their consent and doubled the condition with the damage seen however we can do nothing about that.

As the Hawkes Bay Regional Council has declined to take this matter seriously we request that in order that no regulatory authority may allow

an applicant to contaminate so rapidly that the NPS impose strict conditions which prevent such and we've already touched on that sir we require the other 90% to be regulated. So that when it comes to predicting the amount of nitrogen which is leached for the dairy farm which the consents are really based on. We believe what's happening Sir is that if they require the 90% to become regulated, not one dairy farm in this country will be compliant. So they say it's contaminated.

MR RENOUF: Shouldn't tell them that.

MR DODDS: Yes but anyway it is a major point, the 90%. And we don't think that it's been used to calculate nitrogen we don't think it's been used in the overseeing reports. And it's a factor that needs to be addressed because this could be aware in relation to dairy farming where the majority of the leaching is coming from. But because they're treating it as being committed they're saying they don't have to go down that track. And indeed the recent meeting in Havelock North over Central Hawkes Bay the Ruatanika (ph) planes irrigation schemes I brought this up to the CEO Mr Andrew Newman and he said under no circumstance would he regulate the 90%. Anyway, that, Your Honour, is the end of our submissions.

CHAIR: Well you've gone to a lot of trouble to make sure that we fully understood your submissions and we're very grateful to you both for coming. It's a doubling up isn't it?

MR DODDS: Yes.

MR RENOUF: May I table just one document, it was stated it probably can't go into evidence but about the Kip Rutherford report that says failing to act, can I?

CHAIR: Well you can table it for what it brings to memory.

MR RENOUF: It just makes that point, thank you.

CHAIR: And I would just see if any of my colleagues has any questions for either of you.

MR PRIME: I did have one, it was really the use of the word the Waipawa River is that different from the Waipaoa River?

[4.30 pm]

MR RENOUF: Yes this is the Waipawa River at Central Hawkes Bay alongside the Tukituki.

MR PRIME: Not the one that's spelt differently?

MR RENOUF: It's spelt differently.

MR PRIME: North of Gisborne?

MR RENOUF: Yes

MR DODDS: Your Honour if I just clarify one point there in effect even though the Waipawa is a greater volume than the Tukituki it flows into the Tukituki and becomes the Tukituki proper. They flank the Ruatanika Basin (ph) and then join.

CHAIR: Thank you.

MS VERNON: I was just going to ask the proportion of Red Nettle soils in the Hawkes Bay Regional Council, do you know?

MR DODDS: The point that perhaps we didn't make here the red nettle land runs from Waipawa or south of Waipawa all the way through to Wairau there's a band of red nettle alluvial soil oxidised grey wacky river soils all the way through. Now perhaps the point that we hadn't made and if I may.

CHAIR: You said you'd finished?

MR DODDS: Correct

CHAIR: Any other questions?

MS VERNON: No, no.

CHAIR: Dr Harding?

DR HARDING: No thank you very much for your very thorough submission I haven't got any questions.

CHAIR: Some of the things that you've asked us to consider would require careful thought as to whether they're properly within the scope of an NPS or not. So we're very grateful to you for raising them we probably will come to the conclusion that we've got our hands full with some matters that are very clearly within the scope of our business. But we want to think about some of the others as well that you've raised for our attention so we're very grateful to you for the thoughtfulness with which you prepared your submissions. And of course we need to consider them in the context of other submissions that we've had from people whose attitudes are not dissimilar to your own and other parts of the country. So thank you very much indeed and we're grateful for your contribution.

MR RENOUF: Thank you.

MR DODDS: Your Honour and we thank you.

CHAIR: And tomorrow we're going to Wairoa to hear the material in support of Ngati Kahungunu Iwi.

ADJOURNED [4.32 pm]