Document: 533987

12 November 2008

Chairperson and Members
Policy and Planning Committee

Notice of Meeting

Notice is hereby given that a meeting of the **Policy and Planning Committee** will be held in the Taranaki Regional Council Chambers, 47 Cloten Road, Stratford on:

Thursday 20 November 2008 commencing at 10.30am.

B G Chamberlain
Chief Executive

THE TARANAKI REGIONAL COUNCIL REQUESTS THAT THIS AGENDA REMAINS EMBARGOED UNTIL COMMENCEMENT OF THE MEETING

Agenda for the meeting of the Policy and Planning Committee of the Taranaki Regional Council to be held in the Taranaki Regional Council Chambers, 47 Cloten Road, Stratford on Thursday 20 November 2008 commencing at 10.30am.

TARANAKI REGIONAL COUNCIL

Councillors		N W Walker	(Chairperson)
		M J Cloke	
		M G Davey	
		P D Horton	
		M A Irving	
		M P Joyce	
		D N MacLeod	(ex officio)
		D L Lean	(ex officio)
Representatives	Councillor	A Hickey	(South Taranaki District Council)
	Councillor	M Betts	(New Plymouth District Council)
	Councillor	J Rowe	(Stratford District Council)
In attendance	Messrs	B G Chamberlain	(Chief Executive)
		A D McLay	(Director-Resource Management)
		M J Nield	(Director-Corporate Services)
		G K Bedford	(Director-Environmental Quality)
		G C Severinsen	(Policy Manager)
		P Ledingham	(Information Officer)
	Mrs	K van Gameren	(Committee Administrator)
	Mr	Nick Giera	(Nimmo-Bell and Croydon Consultants)
	Mr	J Clough	(Wrightson Consulting)
Apologies	Mr	G Hight	Federated Farmers of New Zealand

Notification of Late Items

TARANAKI REGIONAL COUNCIL

ITEM ONE

Back to index

Minutes of the Policy and Planning Committee Meeting of the Taranaki Regional Council, held in the Taranaki Regional Council Chambers, 47 Cloten Road, Stratford, on Thursday 16 October 2008 at 10.30 am.

Present	Councillors	N W Walker	(Chairperson)
		M J Cloke	
		M P Joyce	
		D N MacLeod	(ex officio)
Representatives	Councillor	J Rowe	(Stratford District Council)
	Councillor	M Betts	(New Plymouth District Council)
	Mr	G Hight	(Federated Farmers of New Zealand)
In attendance	Councillor	R F H Maxwell	
	Messrs	A D McLay	(Director-Resource Management)
		G K Bedford	(Director-Environment Quality)
		R A Phillips	(Director-Operations)
		G C Severinsen	(Policy Manager)
		P Ledingham	(Information Officer)
	Mrs	K van Gameren	(Committee Administrator)
	Ms	L Mahony	(Policy Analyst)
	Mr	J Clough	(Wrightson Consulting)

Apologies The apologies from Councillor M G Davey, Councillor P D Horton, Councillor M A Irving, Councillor D L Lean and Councillor A Hickey (South Taranaki District Council) were received and sustained.

Notification of Late Item Item 2 – Annual Report on the Dairying & Clean Streams Accord 2007/2008 – NIWA information sheet

1. Confirmed Minutes: Policy and Planning Committee Meeting - 24 July 2008

Recommended

THAT the Taranaki Regional Council

1. receives the confirmed minutes of the Policy & Planning Committee meeting held on Thursday 4 September 2008 at 10.30 am.

08/238 Cloke/MacLeod

Matters Arising

There were no matters arising.

2. Annual Report on the Dairying & Clean Streams Accord 2007/2008

2.1 Mr A D McLay, Director-Resource Management, spoke to the memorandum introducing the Taranaki Regional Council's Annual Report on the Dairying and Clean Streams Accord 2007/2008 (the Accord).

2.2 Members discussed and noted Taranaki's performance and achievements in meeting the targets of the Accord set out in the Regional Action Plan. The targets in the Plan are being met and Accord partners should be well satisfied. However, the 2015 targets for fencing and planting at the current rate of implementation will not be met. It was recognised that the Council's voluntary riparian management programme had basically done all it can to encourage farmers. Mr R A Phillips, Director-Operations, provided an overview to the Committee on the establishment of a contractor scheme to provide labour assistance to landowners. Other surveys and initiatives to improve implementation were also noted.

2.3 The Committee was advised that a regulatory approach may be considered as part of the review process of the Council's Regional Fresh Water Plan for Taranaki in 2011. This concept was not supported by the Committee at this stage.

Recommended

THAT the Taranaki Regional Council

1. receives the memorandum
2. notes most targets in the Regional Action Plan have been meet or are on track to be meet
3. notes the current rate of riparian fencing and planting will be insufficient to meet the 2015 target
4. adopts the Taranaki Regional Council's Dairying and Clean Streams Accord Annual Report 2007/2008.

08/239 Joyce/Cloke

3. Review of the Regional Air Quality Plan for Taranaki

3.1 Mr G K Bedford, Director Environment Quality, and Ms L Mahony, Policy Analyst, spoke to the memorandum and provided a powerpoint presentation to the Committee on the Proposed Air Quality Plan (the Plan) for Taranaki highlighting for discussion the review process and the rationale for Plan rule changes.

3.2 Members noted the changes to rules that will address the issue of reverse sensitivity and the proposed new rules relating to urban backyard incinerators and rubbish fires.

Recommended

THAT the Taranaki Regional Council

1. receives this memorandum and draft *Proposed Regional Air Quality Plan for Taranaki* and stakeholder feedback on an earlier draft Plan
2. notes that over the last 10 years the policy approach adopted in the Air Plan has been generally effective in achieving the desired environmental outcomes and promoting the integrated and sustainable management of air resources in Taranaki
3. confirms that it is satisfied that the rules and methods set out in the Air Plan are the most appropriate way to achieve the objectives of the Plan
4. agrees to publicly notify the *Proposed Regional Air Quality Plan for Taranaki* for public submission on or around 8 November 2008.

08/240 Cloke/Joyce

4. Submission: Proposed NES for On-site Wastewater Systems

4.1 Mr A D McLay, Director Resource Management, spoke to the memorandum introducing a joint submission made to the Ministry for the Environment on the *Proposed National Environmental Standard for On-site Wastewater Systems – Discussion Document*. The submission was jointly prepared for the four local authorities in Taranaki and was sent by the due date of 26 September 2008.

Recommended

THAT the Taranaki Regional Council

1. receives the memorandum on the Ministry for the Environment's *Proposed National Environmental Standard for On-site Wastewater Systems – Discussion Document*;
2. notes the submission is a joint Taranaki local authority submission
3. endorses the submission.

08/242 Cloke/MacLeod

5. Draft submission on National Policy Statement for Renewable Electricity Generation

5.1 The memorandum introducing a draft submission to be adopted by the Council on the Proposed National Policy Statement for Renewable Electricity Generation was received and discussed by the Committee.

5.2 In discussing the draft submission, the Committee requested that it be strengthened to be more assertive in the Council's views about the need for such a policy instrument.

Recommended

THAT the Taranaki Regional Council

1. receives the memorandum
2. adopts the draft submission on the Proposed national Policy Statement for Renewable Electricity Generation amended following agreement of the Policy & Planning Committee.

08/243 Cloke/Joyce

6. e-Day 2008 – Taranaki results

6.1 Members received and noted the memorandum updating the Committee on the results of the e-Day collection held on Saturday 4 October 2008. The community feedback for the event had been very positive.

Recommended

THAT the Taranaki Regional Council

1. receives this memorandum on the results of the e-Day collection held in Taranaki on Saturday 4 October 2008
2. notes the excellent public response to the waste management initiative
3. notes that a further eDay programme in Taranaki is likely.

08/244 MacLeod/Cloke

7. General Business

There were no items of general business.

There being no further business, the Committee Chairman Councillor N W Walker, declared the Policy and Planning Committee meeting closed at 12.00 pm.

Confirmed

Chairman: _____

D N MacLeod

Date: **4 November 2008**

Minutes of the Policy and Planning Hearing Committee Meeting of the Taranaki Regional Council, to hear submissions on the Draft Regional Policy Statement for Taranaki, held in the Taranaki Regional Council Chambers, 47 Cloten Road, Stratford, on Thursday 16 October 2008 at 12.40 pm.

ITEM TWO

Back to index

Present	Councillors	N W Walker	(Chairperson)
		M J Cloke	
		M P Joyce	
		D N MacLeod	(ex officio)
Representatives	Councillor	J Rowe	(Stratford District Council)
	Mr	G Hight	(Federated Farmers of New Zealand)
In attendance	Messrs	A D McLay	(Director-Resource Management)
		G K Bedford	(Director-Environment Quality)
		R A Phillips	(Director-Operations
		G C Severinsen	(Policy Manager)
	Mrs	K van Gameren	(Committee Administrator)

Apologies

The apologies from Councillor M G Davey, Councillor P D Horton, Councillor M A Irving, Councillor D L Lean. Councillor M Betts (New Plymouth District Council) and Councillor A Hickey (South Taranaki District Council) were received and sustained.

Notification of Late Item

Tabled Submissions from Telecom New Zealand, DowAgro Sciences (NZ) Limited, Transpower New Zealand Limited, Department of Conservation, TrustPower Limited, Fish & Game New Zealand (Taranaki Region) and New Zealand Transport Agency.

1. Proposed Regional Policy Statement for Taranaki: Hearing of submissions

1.1 Mr A D McLay, Director Resource Management, and Mr G C Severinsen, Policy Manager, spoke to the memorandum outlining the following:

- background information on regional policy statements and on the processing of submissions on the Proposed Regional Policy Statement for Taranaki (Proposed RPS) leading up to the hearing of submissions on the Proposed RPS

- the introduction of the Report on submissions following pre-hearing consultation and the Proposed Regional Policy Statement for Taranaki as amended following pre-hearing consultation
  - summary of the main issues raised in submissions, including the tabled submissions
  - recommendation that the Hearing Committee agree on its recommendations on submissions to the Proposed RPS
  - outlining the next steps in the process subsequent to the hearing.

1.2 Members noted that due to the exhaustive pre-hearing consultation with submitters by Council officers, most submitters had advised that they did not wish to appear at the Hearing. Four submitters (Fish & Game New Zealand, TrustPower Limited, New Zealand Transport Agency and Department of Conservation) who had initially advised that they wish to attend the Hearing and were scheduled in the Agenda papers to appear in person, subsequently advised that they no longer wished to be heard, but requested to have a further written statement, submission or evidence tabled at the Hearing to be considered as part of the deliberations. Three submitters (Mighty River Power Limited, Tegal Foods Limited and Genesis Energy) had already provided further written submissions to be considered by the Hearing Committee and those submissions had been included in the Agenda circulated to Members. Subsequent to the preparation of the Agenda, a further seven tabled submissions were received by the Hearing Committee from Telecom New Zealand, DowAgro Sciences (NZ) Limited, Transpower New Zealand Limited, Department of Conservation, TrustPower Limited, Fish & Game New Zealand (Taranaki Region) and New Zealand Transport Agency. A total of 14 submitters had therefore tabled further written statements, submissions or evidence to be considered by the Hearing Committee.

1.3 Members of the Policy and Planning Hearing Committee discussed and deliberated on all the submissions received, including the tabled submissions.

1.4 In relation to tabled submissions, the Committee noted and agreed with the submissions that:
  - the submissions by Transpower New Zealand Limited and the New Zealand Transport Agency fully supported the recommendations in the Officers Report on Submissions in relation to their own submissions and sought they be adopted without further amendment
  - the submissions by Mighty River Power and Tegal Foods had been resolved and discussions prior to the Hearing resulting in no further change required to the Officers Report on Submissions
  - the submissions by Genesis Energy, Telecom New Zealand and DowAgro Sciences (NZ) Limited noted some differences between the recommendations in the Officers Report on Submissions and the revised Regional Policy Statement and sought that the recommendations in the Officers report be adopted. Staff confirmed the Officers report to be the correct wording and advised that that wording be adopted.
  - the submissions by the Department of Conservation, Fish & Game New Zealand and TrustPower Limited had sought and/or agreed to further explanations text being included in the Regional Policy Statement in relation to the words 'as far as practicable' and to retain the words 'as far as possible' in relation to methods to protect the water of the Stony River and parts of the Maketawa and Manganui River catchments in their natural state.

1.5 In relation to all other submissions as addressed in the Officers report on submissions, the Committee agreed, following discussions, to the recommendations contained in that report.

1.6 There being no further discussion on the submissions on the Proposed Regional Policy Statement for Taranaki, the Policy and Planning Hearing Committee moved the following recommendations from the officer's report in the agenda and the report on tabled submissions presented to the Committee as a late item:

Recommended

THAT the Taranaki Regional Council

1. receives and acknowledges with thanks the further written submissions tabled by submitters at the Hearing of submissions

2. notes that the Policy and Planning Hearing Committee having considered the further written submissions tabled at the Hearing and the requirements of the Resource Management Act has agreed on its recommendations in relation to those written submissions being the recommendations contained within the memorandum.

08/245 Joyce/Hight

Recommended

THAT the Taranaki Regional Council

1. receives the memorandum on the Proposed Regional Policy Statement for Taranaki: Hearing of submissions

2. receives and acknowledges with thanks the submissions made on the Proposed Regional Policy Statement for Taranaki

3. notes that the Policy and Planning Hearing Committee having considered all written and verbal submissions made on the Proposed Regional Policy Statement for Taranaki and the requirements of the Resource Management Act has agreed on its recommendations in relation to submissions being the recommendations contained in the report *"Proposed Regional Policy Statement for Taranaki: Report on submissions following pre-hearing consultation"* as amended following the hearing of submissions

4. directs officers to prepare a Hearing Committee report setting out the Committee's recommendations on all submissions.

08/246 Walker/MacLeod

There being no further business, the Hearing Committee Chairman, Councillor N W Walker, declared the Policy and Planning Hearing Committee meeting closed at 1.20 pm.

Confirmed

Chairman: _____

D N MacLeod

Date: **4 November 2008**

Document: 528030

ITEM THREE

20 November 2008

Back to index

Memorandum to
Chairperson and Members
Policy and Planning Committee

Proposed Regional Policy Statement for Taranaki: Report of the Policy and Planning Hearing Committee following the Hearing of submissions

Purpose

1. To introduce the report of the Policy and Planning Hearing Committee following the Hearing of Submissions on the Proposed Regional Policy Statement for Taranaki and to recommend that the report be adopted, and to advise Members of one further matter that arose subsequent to the hearing that requires consideration by the Committee.

2. A copy of the report, which contains the further written submissions and evidence tabled at the hearing, is attached separate to the Agenda.

Background

3. On Thursday 16 October 2008, the Policy and Planning Committee met as a Hearing Committee to hear submissions made to the Proposed Regional Policy Statement for Taranaki.

4. Four submitters had initially indicated their intention to appear at the hearing and a further six submitters had forwarded further written submissions or evidence to be tabled at the hearing but did not wish to appear in person.

5. Subsequent to the preparation and distribution of the Hearing Agenda documents and following further discussions with the submitters to be heard, those submitters: Department of Conservation, TrustPower Ltd, Fish and Game NZ, (Taranaki Region) and New Zealand Transport Agency, advised they no longer wished to appear at the hearing and instead provided further written correspondence to be tabled at the hearing.

6. The hearing therefore took the form of Committee deliberations and decisions on recommendations, firstly in relation to the tabled written correspondence from the 10 submitters who did not wish to appear at the hearing but wished to have their further written submissions or evidence considered as part of the hearing process, and secondly deliberations and decisions on recommendations on all submissions as set out in the report: "Proposed Regional Policy Statement for Taranaki: Report on submissions following pre-hearing consultation", (the Report on submissions).

7. At the conclusion of these deliberations, the Committee reached decisions on all submissions and instructed officers to prepare a report setting out the Committee's deliberations and recommendations to the full Council.

Committee report on submissions

Tabled submissions

8. The attached report of the Committee records the hearing process and the outcome of the deliberations of the Committee on both the written correspondence tabled at the hearing and the Report on submissions.

9. Members will recall that 10 submitters tabled further written submissions or evidence to be considered by the Committee. In brief the matters raised in these further written submissions and the Committee's response was as follows:

Mighty River Power Ltd

10. Raised concerns about Policy 2 of Section 9.1 Natural Features and Landscapes, Historic Heritage and Amenity values but after discussion accepted changes proposed in the Report on Submissions document in view of acceptance by the primary submitter Meridian Energy and the more balanced approach now introduced. No further change required.

Tegel Foods Ltd

11. Sought changes to Policy 1(b) of Section 6.1, Air quality but the changes of concern to Tegel had been made and the misunderstanding clarified. No further change required.

Genesis Energy Ltd

12. Advised that it accepted the recommendations set out in the Report on Submissions but that there were some differences between those recommendations and the text in the revised RPS and supported the recommendations. It was clarified that the recommendations in the Report on Submissions are correct and that some word processing errors occurred in amending the RPS. No further change required.

Telecom NZ Ltd

13. Noted that recommendation (a) to submission 17 had not been carried through to the revised version of the RPS. This was a word processing error that is to be corrected. No further change required.

Dow AgroSciences (NZ) Ltd

14. Supported the recommendations in the Report on Submissions but noted that there were two areas of minor inconsistencies in wording between the recommendations in the Report on Submissions and the revised RPS and requested that the wording in the Report on Submissions be incorporated into the final RPS. These are word processing errors that are to be corrected. No further change required.

Transpower NZ Ltd

15. Sought that the recommendations in the Report on Submissions in relation to its submissions and further submissions be adopted. No further change required.

Department of Conservation

16. Raised concerns regarding use of the words "as far as practicable" in some policies, inconsistency between the text in Policy 2(b) of Section 5.1 (Surface water allocation) and the explanation of the policy and the proposed change in wording in Method 3 in Section 5.1 from protecting the waters of the Stony River catchment and parts of the Maketawa and Manganui River catchments "as far as possible" in their natural state to "as far as practicable. The Committee agreed to include a further statement in the explanation to the relevant policies to make it clear that avoiding, remedying or mitigating adverse effects "as far as practicable" does not necessarily mean that any use or development of resources will be acceptable and that adverse effects must be managed in a way that gives effect to the sustainable management purpose of the Act. The Committee also agreed to retain the words "as far as possible" in Method 3, Section 5.1 and to correct the minor inconsistency in wording in relation to Policy 2(b) of Section 5.1.

TrustPower Ltd

17. Generally supported the direction and approach of the recommendations in the Report on Submissions. TrustPower indicated its support for an added explanation of the meaning of "as far as practicable" and accepted retention of the words "as far as possible in their natural state" in relation to the Stony, Maketawa and Manganui River catchments (as discussed in relation to the Department of Conservation's tabled submissions).

Fish and Game

18. Raised concerns regarding the proposed change of wording in methods relating to the protection of the Stony and parts of the Maketawa and Manganui River catchments from "as far as possible" in their natural state to "as far as practicable", and use of the phrase "as far as practicable", in some policies. The Committee agreed to include further explanation of the phrase "as far as practicable" and to retain the words "as far as possible" in relation to the Stony, Maketawa and Manganui Rivers (as discussed in relation to the Department of Conservation's submission).

New Zealand Transport Agency

19. Provided background information on the New Zealand Transport Agency and accepted the recommendations in the Report on Submissions. No further changes required.

Report on submissions

20. In relation to the Report on Submissions document, the Committee agreed after discussion, that all the recommendations contained in that report be adopted as the recommendations of the Hearing Committee subject to the recommendations made on the tabled correspondence. This is reflected in the attached report of the Hearing Committee.

Further matter for decision: Winstone Aggregates

21. In response to Council notification of the Hearing date and distribution of the Report on Submissions, Winstone Aggregates Ltd advised that they would <u>not</u> be attending the hearing but <u>may</u> send a statement of evidence for tabling at the hearing.

22. In the end Winstone Aggregates did not send a statement of evidence for tabling and it was therefore assumed that Winstone Aggregates had no further issues they wished to have raised at the hearing. However, following the hearing Policy Manager, Gray Severinsen found that an email had been sent to him while on leave, from Winstone Aggregates raising an issue of concern. This issue has now been discussed with Winstone Aggregates and other affected submitters - Fish and Game, and Department of Conservation - and a resolution to the issue agreed to at staff level involving a change to the Report on Submissions. Agreement of the Committee is sought to this change.

23. The issue concerns the new Minerals section to be included in the Regional Policy Statement in response to submissions by Winstone Aggregates. During the pre-hearing process, Fish and Game sought the inclusion of the word "any" before the words "adverse effects" in the objective, policy 1, Explanation and Methods 1 and 5 in relation to avoiding, remedying or mitigating adverse effects on the environment. This meant that the relevant provisions currently read as follows (added word underlined):

    "Objective

    To provide for use and development of the region's mineral resources while avoiding, remedying or mitigating any adverse effects on the environment.

    Policy 1

    Provision will be made to enable appropriate use and development of the region's mineral resources in a way that avoids, remedies or mitigates any adverse effects of on the environment.

    Explanation

    Policy 1 provides for appropriate use and development of the region's mineral resources to enable people and communities to meet their economic, social and cultural wellbeing. This must be done in a way that avoids, remedies or mitigates any adverse effects on the environment.

    METH 1

    Maintain a regional plan or plans with objectives, policies and methods to make appropriate provision for mineral exploration, extraction and processing and which ensure that any adverse environmental effects are avoided, remedied or mitigated.

    METH 5

    Include in district plans and in resource consents provisions or conditions that make appropriate provision for mineral exploration, extraction and processing activities and which ensure that any adverse environmental effects are avoided, remedied or mitigated …".

24. It was agreed to make this change because the inclusion of the word "any" would be consistent with the wording of the Act and an explanation to be included at the beginning of part B of the RPS stated that where such wording appears in the RPS, it did not necessarily mean that there were to be no adverse effects.

25. Winstone Aggregates advised that while it generally supported the Report on Submissions and amended RPS, the addition of the word "any" as proposed was a matter of significant concern which it opposed. Winstone Aggregates was concerned that despite the explanation at the beginning of part B explaining the Council's approach to addressing adverse effects or "any" adverse effects, the wording of the policies etc in the Minerals section would be different from other sections of the RPS and that this could lead users of the RPS (for example in processing resource consents)

to conclude that minerals developers were subject to a higher test of environmental protection than other resource users. It was explained that his was not the case, however, Winstone's concern remained.

26. In discussion with Winstone Aggregates, Fish and Game and Department of Conservation (who were further submitters on this issue) it was agreed that the word "any" be removed from Policy 1, the Explanation text and Methods 1 and 5, but that the word "any" remain in the objective. Given other provisions in the RPS in relation to adverse effects and the Act itself, such a change would promote the overall sustainable management purpose of the Act. Accordingly the recommendations in this memorandum propose the alterations described above in relation to the submission by Winstone Aggregates and the submissions by Crown Minerals, Ministry of Economic Development and the Aggregate and Quarry Association of NZ where the same issue arises.

Next steps

27. Following consideration by the Committee of the Hearing Report (attached) and the further matter raised by Winstone Aggregates, and their adoption by the Council, staff will prepare the formal Council decisions document and a further amended version of the RPS for adoption by the full Council.

28. The formal decisions document will incorporate in full, the recommendations of the Policy and Planning Hearing Committee but will be in the form required by the Resource Management Act. It will not therefore be necessary for the Committee to receive the formal decisions document and amended RPS before they are forwarded to the full Council. This will expedite the processing of the RPS.

29. If the Council adopts the decisions, the decisions document will be forwarded to all submitters. Submitters will then have 30 working days from service of the Council's decisions, to appeal to the Environment Court against the Council's decisions. Given the agreements reached during the pre-hearing and hearing processes, it is not anticipated that there will be appeals against the Council's decisions. If there are no appeals, the Regional Policy Statement could be operative in the first quarter of 2009. Any appeals could delay the RPS becoming operative by some months while agreements among the parties are reached and endorsed by the Environment Court or hearings before the Environment Court completed.

Decision-making obligations

30. Part 6 (Planning, decision-making and accountability) of the Local Government Act 2002 has been considered and documented in the preparation of this agenda item. The recommendation(s) made in this item comply with the decision-making obligations of the Act.

Policy considerations

31. This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the Local Government Act 2002, the Resource Management Act 1991 and the Biosecurity Act 1993.

Financial considerations

32. This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Council Community Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Legal considerations

33. This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Recommendations

THAT the Taranaki Regional Council:

1. receives the memorandum Proposed Regional Policy Statement for Taranaki: Report of the Policy and Planning Hearing Committee following the Hearing of submissions;

2. adopts the report and recommendations of the Policy and Planning Hearing Committee following the Hearing of Submissions to the Proposed Regional Policy Statement for Taranaki, subject to amendment under recommendation 2 below;

3. agrees to amend the recommendation in the Report on Submissions following pre-hearing consultation, dated September 2008, concerning submission 10(b), Winstone Aggregates, submission 5(a) Crown Minerals, Ministry of Economic Development and submission 26(a) Aggregate and Quarry Association of NZ, by deleting the word "any" where it appears in Policy 1, Explanation of the policies, Method 1 and Method 5, of the Proposed new Section 12, Minerals; and

4. notes that a formal document recording the decisions of the Taranaki Regional Council on submissions to the Proposed Regional Policy Statement for Taranaki together with an amended version of the Statement will be submitted to the Council for adoption.

AD McLay
Director-Resource Management

Approved:

B G Chamberlain
Chief Executive

Document: 530470

20 November 2008

ITEM FOUR

Back to index

Memorandum to
Chairperson and Members
Policy and Planning Committee

Bridging the gap between environmental knowledge and research project

Purpose

1. The purpose of this memorandum is to share the findings of recent research partly carried out in Taranaki. The research was primarily funded by the Ministry of Agriculture and Forestry (MAF) and focused on bridging the gap between environmental knowledge and research and desired environmental outcomes, to achieve sustainable land management.

2. The attached papers summarise the findings of a three year research project and comprise the abstract and executive summary from the project report, and the key messages from the environmental case studies that addressed nitrate leaching, possum control, and erosion. The former two involved Taranaki farmers and consideration of the Council's riparian management and self help possum control programmes. Extracts from the report for these case studies are attached for Members information.

3. Mr Nick Giera, of Nimmo-Bell consultants, will be in attendance at the meeting and give a brief presentation on the project and answer Members queries.

Project objectives

4. The objectives of the project were to:

   - identify successful and sustainable approaches for bridging the gap between environmental knowledge and research, and desired outcomes;
   - analyse why these approaches work;
   - identify key characteristics of successful models; and
   - present the findings to those agencies and organisations most able to influence land management practices and to help them identify ways to increase their contributions to bridging the gap between knowledge and outcomes.

Background

5. The research was undertaken by Nimmo-Bell and Corydon Consultants with input from AgResearch and Massey University. The research focused on three environmental

issues - nitrate leaching, erosion and possum control. The first year of research entailed a review of the theories and education models of behaviour change, and policies and programmes adopted in a range of countries to achieve sustainable land management. The historical drivers for current land management practices in New Zealand were also analysed. From this work the factors influencing the uptake of environmental science by farmers were identified.

6. The following year (2006/7) the team undertook fieldwork with 13 groups of farmers around New Zealand each of which was dealing with one or more of the three environmental issues. The purpose of the case study research was to test the extent to which the influential factors identified in the theory and through the experiences in other countries applied to New Zealand farmers. This research was supplemented with a nationwide telephone survey of 1000 dairy farmers to gain an overview of farmer attitudes to nitrate leaching and nutrient management. From this research the factors influencing the uptake of sustainable land management practices were refined to fit the New Zealand context.

7. The principle audience for the project report is MAF policy. Other government departments, players in the agricultural industry and regional councils are also considered to benefit from the information contained in the report.

8. MAF provided a third year of funding so that the research team can take the findings out to some of the key stakeholders such as Taranaki Regional Council with the aim of encouraging greater awareness and implementation of the research findings. Staff were invited to a seminar in Wellington to share in the research results.

Project findings

9. From the research a wide range of recommendations have been made on how New Zealand can reduce the gap between awareness of environmental degradation and implementation of more sustainable practices on the land. Some of these recommendations are likely to relate directly or indirectly to the work and responsibilities of Taranaki Regional Council.

10. The project involves a large number of findings some of which will be of no surprise to Members given this Council's experience with regulatory, non-regulatory, and a mixture of both type of approaches. The attached material sets out the project conclusions and a number of these are addressed below in the context of the Council's land management and other environmental programmes.

11. In terms of the analysis of behaviour change theories and approaches these highlight the range of social, economic, and psychological factors that influence farmer's responses to environmental concerns. This analysis indicates the importance of taking a holistic and participatory approach to bring about sustainable change in land management practices.

12. The Council's land management, possum control and riparian programmes adopt such an approach and have a high degree of Council officer and farmer participation. The land management and riparian programmes involve skilled land management officers sitting down with farmers and developing property plans and then monitoring implementation of the plans and offering advice and assistance. The possum control programme stems from the Council's statutory Pest Animal Strategy but involves Council staff working with farmers during initial control and subsequent monitoring

activities. Scientific information is available for transfer to farmers in all these programmes.

13. In terms of the analysis of overseas experiences the project showed that voluntary approaches, while effective to a degree, are generally not enough to achieve the community's desired rate of progress without strong regulatory underpinning. Successful programmes often involve the community as beneficiaries sharing some of the costs farmers face in making the transition to sustainable practices.

14. The land management and riparian programmes have a large number of farmers in the region with property plans prepared but the rate of plan implementation, particularly for the riparian plans, could be improved. Hence voluntary approaches have taken us so far and overseas experience is that to achieve the community's desired rate of progress strong regulatory underpinning may be required. In other parts of New Zealand some councils are looking to bring in statutory land use controls and this remains a future option for this Council. However, in these areas there has generally not been the same level of voluntary programmes, as established in this region, such that there is a rapid move from voluntary to statutory type regimes with associated negative farmer reaction.

15. The Council supports the land management, possum control and riparian programmes through funding from rates recognising successful programmes involve the community as beneficiaries sharing some of the costs farmers face.

16. The research notes significant barriers to the adoption of environmental best practice are:

    - Labour constraints that make land users unwilling to make changes to the day to day running of their farms;
    - Financial costs and uncertainties associated with adopting new technology that is not supported by conclusive evidence;
    - Economic incentives that encourage existing practices and land markets that do not reflect the costs of repairing off-site environmental damage;
    - Farmers scepticism of scientists and scientific information;
    - The lack of quantified and measurable environmental targets for land managers to work towards;
    - A limited range of options for land managers to trial and adapt to their own properties and farm systems; and
    - Land manager and public resistance to possum control methods.

17. Council programmes seek to address these barriers and the riparian and self help possum control programme case studies note the excellent relationship developed over time between this Council and the farming community. Reference is also made to the practical and commonsense approaches being used as being important to farmers.

18. Most of the issues identified in the case studies and outlined in the attachments, are known to the Council and are being addressed by way of programme modifications. An example is time constraints are seen as a major barrier to adoption of the riparian programme which has been addressed by facilitating the provision of contractors.

Recommendations

THAT the Taranaki Regional Council:

1. reviews this memorandum;
2. notes the research project partly involved Taranaki farmers; and
3. notes the research provides some information on farmers perceptions for the Council's land management programmes.

AD McLay
Director-Resource Management

Approved:

B G Chamberlain
Chief Executive

Document: 533859

20 November 2008

ITEM FIVE

Back to index

Memorandum to
Chairperson and Members
Policy and Planning Committee

UK reports on managing diffuse source pollution from agriculture

Purpose

1. To introduce two reports prepared for the Department for the Environment, Food and Rural Affairs (Defra) in the United Kingdom, on methods to control diffuse water pollution from agriculture. The reports are:

    - *'Methods and measures to minimise the diffuse pollution of water from agriculture – a critical appraisal'; and*
    - *'An inventory of methods to control diffuse water pollution from agriculture: User Manual'.*

2. The Executive Summary/Table of Contents from the reports are attached to this memorandum for Members' information. Full copies of the reports are available for Members on request.

Background

3. Many countries have made significant progress in the last 20 years in improving water quality through improvements in the treatment and disposal of point source discharges from industry and agriculture. Attention is increasing turning to the management of diffuse source contamination ie contamination from widespread sources that cannot be identified from a single point source.

4. This Council has recognised diffuse source contamination of water as a significant issue for Taranaki and has moved to address this issue largely through voluntary, non-regulatory methods such as the Council's Riparian Management Programme.

5. The Council's major policy documents: the Regional Policy Statement for Taranaki and the Regional Fresh Water Plan for Taranaki contain the Council's long term objective to maintain and enhance our water quality. The success of the Council's voluntary programmes in addressing diffuse source contamination of our waterways will be critical to achieving this objective.

6. Members will be aware from progress on the Dairying and Clean Streams Accord reported at the last meeting of the Committee held on 16 October 2008 that while excellent progress has been made in riparian plan preparation, the rate of plan implementation has been slow and will need to increase if the Council's target of 90%

implementation is to be achieved by 2015. Various methods are being used to encourage farmers to increase the rate of implementation. However, alternative methods of achieving the target may need to be considered at some stage in the future.

7. The attached reports were picked up in England by Policy Manager, Gray Severinsen as part of a visit to look into policy approaches in that country to managing diffuse source pollution from agriculture ahead of the review of the Council's Fresh Water Plan.

The reports

8. The first report (*Methods and measures to minimise the diffuse pollution of water from agriculture – a critical appraisal*), is a comparison and appraisal of measures to address diffuse pollution in other countries. It identifies two challenges: firstly to develop technical methods for reducing losses from agriculture and second to take measures that will encourage farmers to adopt those methods.

9. The report notes that a structured approach to the issue is required that involves an assessment of water quality status, the setting of targets or objectives, the selection of the most appropriate methods to be put into practice on individual farms, the selection of measures to encourage or force farmers to adopt the desirable farming methods and then monitoring the effects of policy implementation and making any necessary changes to the methods and measures being used. This is the broad policy approach that has been adopted by this Council and as noted above we are monitoring our current progress and keeping the effectiveness of our current policy approach under review.

10. The report looks at various policy options to encourage or require farmers to adopt various methods. This range from voluntary (uncompensated) methods such as advice to adopt good practices through to mandatory schemes such regulation – with or without compensation. The report concludes that in practice it is likely that a blend of measures that evolves over a period of time in response to measured changes will be needed to achieve most environmental objectives.

11. The second report (*User Manual*) lists 44 practical methods that can be adopted at the farm level to control diffuse water pollution from agriculture. These range from converting arable land to grassland through to fencing off rivers from livestock, constructing bridges for livestock crossings and establishing riparian buffer strips and artificial wetlands. Many are relevant to Taranaki and indeed are already being applied on farm here.

12. For each method, the Manual describes the actions to be taken to implement the method, the rationale for the method, a description of how the method woks, the potential for applying the method and its practicability, an estimate of the cost of implementing the method, its effectiveness and an assessment of other benefits of the method or its potential for pollution swapping.

13. The report notes that the cost and effectiveness values for each method relate specifically to the standard Model Farm Systems and cannot be strictly applied to a specific farm or extrapolated to the whole of a farming sector.

14. Caution is also needed in applying the Manual to Taranaki because of very different climatic, soil etc features, cost structures and farming systems and practices here.

15. However the Manual is a useful checklist. It has been widely referred to in policy documents and good practice and other guidance material developed in the UK.

16. As an aside, it appears that while there are numerous policy documents and good practice guidance material produced in the UK there is little in the way of regular on-farm monitoring and enforcement of either regulatory requirements or guidance. Regular monitoring and follow-up is one of the strengths of this Council in water quality management.

Recommendation

THAT the Taranaki Regional Council:

1. receives the memorandum 'UK reports on managing diffuse source pollution from agriculture'.

AD McLay
Director-Resource Management

Approved:

B G Chamberlain
Chief Executive

DEFRA Project NT2507

Methods and measures to minimise the diffuse pollution of water from agriculture - a critical appraisal

Final report to DEFRA

Peter Dampney (Project Leader) and Paul Mason, ADAS Boxworth

Gillian Goodlass, ADAS High Mowthorpe

Jon Hillman, ADAS Gleadthorpe

June 2002

1. Executive summary

Project aims and objectives

1. There is a need to reduce the pollution of water by diffuse sources from agriculture. There are two separate challenges:- (i) to develop technical and technological *methods* for reducing losses from agriculture, and (ii) to take *measures* that will encourage farmers to adopt these methods. Measures to facilitate change can be, according to the EC Water Framework Directive, 'basic' (i.e. compulsory) or 'supplementary'. Basic/compulsory measures are supported by legislation – e.g. the Nitrate Directive and the controls this places on fertiliser and manure use. There are legislative controls on some, but not all pollutants. The supplementary measures can include:-

   - Legislative instruments
   - Administrative instruments
   - Economic or fiscal instruments
   - Negotiated environmental agreements
   - Emission controls
   - Codes of Good Practice
   - Re-creation and restoration of wetland areas
   - Abstraction controls
   - Demand management measures
   - Efficiency and re-use measures
   - Construction projects
   - Desalination plants
   - Rehabilitation projects
   - Artificial recharge of aquifers
   - Educational projects
   - Research, development and demonstration projects
   - Other relevant measures

2. In January 2002, ADAS was commissioned by DEFRA to appraise the nature and effectiveness of approaches taken in other countries to minimise diffuse pollution of water from agriculture. A wide range of potential pollutants were considered including nitrogen (N), phosphorus (P), sediment, pesticides, veterinary medicines, biocides, pathogens and biological oxygen demand (BOD). The main aim of the project was to learn from international experiences. The project has not attempted to produce a full inventory of every measure used in every country. Published and unpublished information from a variety of sources including literature/web searches and direct professional contacts have been collected and evaluated. To obtain a more complete information set and for purposes of verification of data, visits were made to Denmark, France, Ireland and Sweden.

Structure and targeting of control measures

3. Controlling diffuse pollution requires a structured approach:
   (i) Assessment of the status of the (water) environment and the need for pollution prevention and remediation.
   (ii) Setting of environmental targets at national and/or local levels.
   (iii) Selection and prioritisation of the most appropriate *methods* (i.e. the farm practices) that need to be put into practice on individual farms.
   (iv) Selection and implementation of the *measures*, or suite of measures, that are needed to encourage or force farmers to adopt the desirable farming methods.
   (v) Monitoring the effects of policy implementation on farm practice and water quality, and making any necessary changes to the methods and measures being used.

4. Many countries have defined quantitative targets for pollution remediation or control that set the national or regional policy objectives against which measures are designed, implemented and developed. Some of these targets appear rather arbitrary but form the basis for periodic assessments and re-defining of measures. Objective targets seem to provide a clear focus for national planning, implementation and auditing, but care is needed to ensure that they are reasonably based, soundly monitored and flexible, allowing for change and refinement in the light of new knowledge and experience. Otherwise achievement of inflexible, rigid targets can become a 'treadmill' requiring disproportionately severe measures to achieve the last portion of the objective. Local targets can be more specific, based on the environmental requirements of the locality.

5. There is good scientific understanding of the effect of different individual *methods* (farm practices) on the source and transport of individual pollutants to water. Most methods have some synergistic effects for the pollutants of issue with few or no antagonistic effects. These methods can be grouped as shown below.

   - *Farm restructuring* – controls on crop type; extensification; over-winter ground cover; strip cropping.
   - *Livestock management* – stocking rate limits; changed feed composition; targeted medicinal use.
   - *Manure management* – application rate limits; manure treatment; closed spreading periods; sufficient storage capacity; soil incorporation.
   - *Soil management* – cultivation for stable soil structures; minimal cultivation; contour management; use of chemical soil stabilisers; restricted field drainage flow; absorbent drain-fills.
   - *Crop inputs management* – nutrient management planning; pesticide use planning/ICM/IPM; restricted application timings; zero input zones; site selective management; biobeds for treatment of wastes.
   - *Farm machinery management* – appropriate application equipment; operator training.
   - *Watercourse management* – barrier ditches; vegetative barrier strips; reedbeds; wetland areas; reduced watercourse maintenance; restricted access for livestock; riparian buffer strips.

   If adopted by farmers, a few methods have the potential to increase farm profits (e.g. nutrient management planning) whilst many will involve a net cost for farmers (e.g. manure storage capacity) or be impractical to implement (e.g. restricted field drainage flow). Additionally, there are some methods that provide potentially conflicting outcomes, as outlined below. All of these factors will influence the choice of target methods for different target objectives.

   - *Organic farming* – continuing uncertainty about the effects on nutrient pollution. Positive benefits from no use of pesticides etc., unless alternative chemicals have potential for environmental damage.
   - *Placement or soil incorporation of organic manures* – reduces gaseous N losses but increases the quantity of soil N at risk of leaching.
   - *Spring application of organic manures* – reduces the risk of N leaching but may increase the risk of P and pathogen transfer to water.
   - *Limits on organic total N loadings* – reduces risk of water pollution but the wider distribution of manures/exports from farms may increase the biosecurity risk, public nuisance due to manure transport, and add to (transport) energy costs.
   - *Primary cultivations and field drainage* – improved vertical infiltration rates may increase the risk of N leaching, but should reduce the risk of erosion and thus P and sediment transport to waters.
   - *Creation of fine soil tilth* – may increase pesticide retention by soil but also the risk of soil erosion and thus P/sediment transfer to water.
   - *Creation of wetlands* – can provide short-term relief to nutrient and sediment transport but may increase the risk of nitrous oxide emissions by denitrification.

Policy options for controlling diffuse pollution

6. There is a wide range of different *measures* (i.e. ways of persuading or forcing farmers to change practice) used in different countries. The use of different types of measures in part reflects the severity of the problem, in part the national policy objectives. Although views are commonly expressed on the success or failure of measures, it has been difficult to find much objective information to allow any independent judgements. There are several generic types of measures as described below, but in practice it is likely that a blend of measures that 'evolves' over a period of time in response to the measured changes achieved, will be needed to achieve most environmental objectives.

   - *Voluntary (uncompensated) without external pressures (e.g. advice to adopt good practices).* Voluntary measures are only likely to be successful if they are designed and presented in a way that persuades farmers that it is in their and/or the environment's interest that they should change practice, and that there is sufficient information and advice available to help them to make the necessary changes on their own farms. A positive or neutral cost-benefit outcome is essential if voluntary measures are to be adopted by farmers, but implementation costs can be lower than for other types of measure. Experiences suggest that voluntary measures have potential to change farm pesticide practice because farmers appear to more readily accept the need to reduce pesticide use, but may be less effective in changing farm nutrient practice.

   - *Voluntary (uncompensated) with external pressures (e.g. taxation, compliance with Product Assurance Schemes)*
     This type of measure can be effective if the external pressure is appropriate and is in sympathy with the aims and perceptions of the farming community. For example, UK farmers are increasingly joining Produce Assurance schemes as a means of ensuring advantageous marketing of their produce. However, this pressure is not widely used in other countries. Taxation of pesticide and/or fertiliser products is used in some countries. This is usually seen as a way of raising revenue and not as a way of directly changing farm practice; it helps raise farmer awareness.

   - *Voluntary (compensated) schemes (e.g. sensitive area schemes)*
     This is probably the most common type of measure since most countries have a policy of providing some financial support to farmers who are prepared to join schemes. Many schemes are of a broad 'agri-environment' type where farmers can select from a range of options that may be tailored to the needs of the individual farm (e.g. US Best Management Practice scheme). Some schemes (e.g. the Irish Rural Environment Protection Scheme) require farmers to adopt all of the required changes in farm practice.

   - *Mandatory (uncompensated) schemes (e.g. regulations such as agro-chemicals approval, nutrient planning, farm licensing)*
     These measures may often be 'unseen' (e.g. agro-chemicals approvals). Although there seems to be an increasing interest in mandatory nutrient management plans (e.g. Ireland, Maine USA), increased levels of technical support to farmers is usually made available. Although mandatory measures have the potential to force farmers to change their farm practice, the enforcement and other administrative costs can be high if this type of measure is to be effective. Additionally, farmers can be unreceptive to mandatory compared to voluntary measures, even if they might be in the interests of the farm business. In general, mandatory measures should be used only if less stringent measures are shown to be inadequate.

   - *Mandatory (compensated) schemes (e.g. environmental plans)*
     This type of scheme is likely to be most applicable where the impact of farming activities are most acute or the quality of receiving waters is of particular concern. A typical example is the forced purchase of livestock production rights in the Netherlands when farms are sold outside of the family unit.

The success of measures

7. When evaluating the use of measures to control diffuse pollution, it is necessary to understand the characteristics of different countries (including sociological characteristics) and the diffuse pollution pressures that are recognised. Inevitably, measures adopted will take account of the characteristics of agriculture in each country or region, and the nature and severity of the pollution problem. Measures are likely to be more stringent where a high level of diffuse pollution exists. The relevance and applicability of measures used in other countries for use in England will depend on comparisons of the farming system, farmer and public attitudes, Government policies and on the relative severity of the policy objectives for minimising pollution.

8. Most information and objective experience refers to nitrate, phosphorus and pesticides, but especially nitrate. This is because of the need for Member States to comply with the Nitrate Directive. Although most countries recognise the emerging importance of water pollution from sediment, veterinary medicines, biocides and pathogens, these are not generally considered to be current priorities. For these pollutants, there is little information or knowledge on the nature of the pollution problem, water quality data or trends, current farm practices or desirable farm practices.

9. Assessment of the success of measures requires the use of 'indicators of change'. Ideally this should be water quality data but it is well known that there is a significant time lag between changes in farm practice and the likelihood of there being any measurable changes in water quality, especially groundwater quality. Some water quality data and trends exist for nitrate and phosphorus but very little is available for pesticides or the other potential pollutants. Even for nutrients, few countries have good time-based data that allows reliable trends in water quality to be examined.

10. Due to the difficulties of directly linking changes in farm practice to changes in water quality, proxy indicators of change are commonly used as a primary way of monitoring progress. These proxy measures also tend to reflect the basis for national environmental policy targets. Examples are the proportion of farms with Nutrient Management Plans, calculated national nutrient balances, and statistics on fertiliser nutrient or pesticide use. Significant changes in farm practice can be achieved by the enforcement of stringent measures as illustrated by the significant changes in fertiliser and pesticide use, and manure use and storage that have occurred in countries such as Denmark, the Netherlands and parts of Germany. However, care must be taken in assuming that these changes will be fully reflected in improvements in water quality.

11. Significant reductions in national N balances (36 and 52 kg/ha N reductions) and N fertiliser use (33 and 21% reductions) have been achieved in Denmark and the Netherlands respectively but only through the implementation of increasingly severe and mandatory measures on the use of nitrogen fertilisers and organic manures, phased in over many years. Those countries that have had the largest impact on nitrogen balances have also had the most stringent control measures. In some countries (e.g. Denmark), there are serious concerns about the impact of these measures on farm businesses and international competitiveness. Reductions in the phosphorus concentration of water have been found in several countries, but this is generally attributed to changes in point source pollution and/or from non-agricultural sources, even though mitigation measures to reduce diffuse pollution from agriculture were usually also in force. Despite revocation of active ingredients and pesticide taxes, some plant protection products are routinely detected in surface waters in Sweden. It has not been possible to provide any independent validation of water quality data nor identify the relative effectiveness of individual measures in achieving the reported reductions.

12. A common structure of measures comprises a foundation of mandatory measures (often with financial compensation) supported by additional, locally-based voluntary or mandatory measures focused on sensitive areas. The progressive time-based evolution of measures is a common feature of several national measures as it provides flexibility and allows adaptability.

13. Many reports emphasise the importance of establishing 'partnership approaches' with farmers, increasing the awareness of farmers of environmental issues and developing farm-specific solutions together. Even for measures such as taxation, the main benefit is commonly seen to come from 'profile raising' (i.e. the pollution issue) rather than any extra revenue. The need for support to farmers to facilitate changes in farm practice and the implementation of measures is widely recognised. The introduction of new measures is commonly supported by advice to farmers. Approaches include direct compensation, grant aid, the provision of advisory, education and training programmes, and the development/use of supporting advisory tools. However, the need for farm level advice will depend on the scale and complexity of the changes required.

14. Where farmers have been required to adopt new practices or new farm-specific nutrient or pesticide planning procedures, significant farm advisory and administrative systems have been created. Where farm-specific planning is required, often on an annual basis (e.g. nutrient plans), a high level of one-to-one independent advice is regarded as being necessary by some countries. This is often provided by Government approved independent advisers.

15. Some national Governments have accepted significant extra costs to implement new measures. The main costs have covered the requirement for education and advice, technical support to advisers, compliance monitoring and enforcement, grant aid, and environmental monitoring. Although some global national figures are available, it has not been possible to sub-divide costs for individual components of national programmes. In some countries, funds have been raised through taxation on pesticides and/or nitrogen fertilisers.

16. As measures have developed in different ways in different countries, problems and loopholes have been identified, and solutions sought and implemented. The main examples are described for each country.

Document: 526308

ITEM SIX

20 November 2008

Back to index

Memorandum to
Chairperson and Members
Policy and Planning Committee

Report on assimilation and dilution of discharges from dairy effluent treatment ponds

Purpose

1. This memorandum advises the Committee of the preparation of a report by Council officers on the results and significance of a study into the downstream effects of a discharge from a dairy effluent treatment pond system. The executive summary of the report, 'The assimilation and dilution of dairy shed effluent pond discharges in Taranaki: a study and discussion of in-stream environmental effects below a pond discharge', is attached to this memorandum for the information of members.

Key points for Members' consideration

Council officers have undertaken a study into the rate of assimilation and dilution of the contaminants discharged into a stream from a dairy effluent treatment pond. This delivers on undertakings within the RFWP, to 'apply, where appropriate, in conjunction with the objectives, policies and rules in this plan, the best practicable option for preventing or minimising any actual or potential adverse effect.. of any discharge of a contaminant to water..', and to 'promote or undertake research into methods of water quality management'.

The study has found that even in the absence of a discharge, upland waters exceed national water quality guidelines for nutrients intended to maintain ecological quality- but despite this, the quality of the stream studied was found to be very high, suggesting the guidelines are conservative.

The study demonstrated that riparian planting provides significant additional benefit for water quality, even when pre-existing quality is already high.

The study found that rainfall events contribute mass loadings of several contaminants that can be much higher than the mass loadings from individual point sources (dairy effluent treatment ponds).

The study found that the more reactive of contaminants (ammonia, dissolved reactive phosphate) are stabilised within 120 metres of their point of discharge, biochemical oxygen demand and bacteriological contaminants within 450 metres, and the more persistent contaminants such as nitrate and total phosphate within 1.5 kilometres. This indicates that consideration should be given to cumulative effects where there are multiple discharges within a distance of up to 120-450 metres.

Background

2. Dairy shed waste effluent ponds are the most common means of treatment of dairy shed effluent in the region, and are the most numerous point source discharges to surface water in Taranaki. In recent years improvements in the management and treatment of dairy shed effluent prior to discharge have been implemented on many farms, driven by the Regional Freshwater Plan for Taranaki (RFWP) and advice of this Council. There are no discharges to water of untreated dairy shed wastes in the region. Effluent treated in oxidation pond systems may be either discharged to water or to land. Presently 60 % (1,180) dairy shed effluent discharge systems in the region involve oxidation pond systems that discharge to a water course. The remainder involve irrigation to land and the number of these consents is increasing. However, clearly there is still a need to understand as completely as possible, the performance of systems discharging to surface water.

3. The application of the RFWP provisions on farm dairy discharges was recently assessed. Members will recall the provisions of the RFWP were intended to apply to resource consents when they were reviewed, changed or renewed, rather than being universally implemented by a set date. The assessment shows that of the current 1862 consents, 79.5 % have had the RFWP provisions applied. By the ten year term of the RFWP, 88.5 % of consents will have had the provisions applied. The remaining consents (214) all expire by June 2020 and are evenly spread over the period, and will be captured under the provisions of the new plan.

4. This Committee has previously (3 October 2006) received a report on a study into the performance (including environmental effects within the stipulated mixing zone) of dairy effluent pond systems constructed and discharging according to the Council's guidelines for 'controlled' activities of this sort.

5. The provisions of the RFWP do not stipulate that a pond system must be of a minimum size and achieve a minimum level of dilution before a resource consent will be granted. What the RFWP does provide for (Rule 36), is that for a pond system discharging directly into a watercourse (i.e. other than into a wetland that would generally afford additional treatment), then that activity will be considered as a 'controlled' activity (a consent will be granted as a matter of course), if it satisfies requirements for the dilution capacity, the sizing and operation of the ponds, and for downstream environmental performance. (The Council may still impose conditions upon the nature of the pond's operation and the level of environmental performance required).

6. Given that by definition the Council has no option but to allow a 'controlled' activity to proceed, the purpose of the earlier study was primarily to relate actual performance against conformance with the Council's criteria, to determine whether the criteria providing for this category of activity give adequate protection against unacceptable adverse environmental effects, and thus reassurance to the regional community that the criteria for entry into a 'controlled' category of consenting have been set at an appropriate level. The research delivered on an undertaking given to various parties at the time the RFWP was drafted, that the appropriateness (or otherwise) of the entry criteria would be verified by field studies.

7. The results of the earlier study, as advised to the Committee in October 2006, suggest that a pond system designed and sized generally in accordance with the Council criteria, and consistently achieving a dilution ratio of 100:1 or greater, is unlikely to result in effects on the environment that are more than negligible, in either duration or

degree of severity. That is, the Council's guidelines for consideration of a discharge activity as a 'controlled' activity were upheld.

8. The report made a number of recommendations, including that it is appropriate to continue using the criteria of Rule 36 as a basis for categorising 'controlled' activities for dairy effluent discharges to water.

9. However, in reviewing the study and discussing its findings with other parties, one issue that remained unresolved was that of cumulative effects, the potential result of multiple discharges occurring down a stretch of a stream or river.

10. Accordingly, a consequent study was designed and commissioned, to look more closely at the rate of assimilation and/or dilution of a discharge, in order to ascertain whether criteria are necessary and can be developed for managing cumulative effects i.e. controlling the number and effects of multiple sources discharging in close proximity into the same receiving environment.

11. The study was implemented during the summer of 2007-2008, and is reported herein.

Discussion

12. The study focused on a dairy effluent pond located near the point of origin of a stream arising within the ring plain, south-east of Mt Taranaki. The pond discharge was the highest point source in the catchment, and there are no other point sources for some 2 kilometres below it. Therefore the effects of the discharge were not confounded by other sources. The discharge ceased half way through the dairy season, when the pond system was pumped out, giving ideal conditions for an experimental 'discharge- non-discharge' comparison. When the pond discharge was un-impeded, it was found that the dilution rate did not meet the requirement for a 'controlled' activity under the Plan, and the strength of the discharge was higher than typical. Thus, this discharge represented a 'worst-case' scenario for determining in-stream attenuation.

13. The study involved repeated measurements of water quality (discharge and receiving water), biology, and hydrology. Four downstream sites were used, over a range of 1.7 km, to provide data on attenuation and assimilation of the discharge.

Results

14. The biological survey showed that the stretch of stream studied, located close to the head waters of a lowland stream, and open in nature at the first two sites, was nevertheless of very high ecological quality. The beneficial effects of riparian vegetation are especially apparent at several of the sites, confirming the valuable contribution of riparian vegetation to enhancing in-stream ecosystems (even those of pre-existing high quality).

15. Overall, there was effective attenuation within 120 metres for ammonia and DRP, significant attenuation within 120 metres and effective attenuation within 450 metres for BOD and faecal coliforms, and within 1.55 kilometres for TP and nitrate.

16. While both nitrate and phosphorus concentrations exceeded the ANZECC guidelines for avoidance of adverse effects upon aquatic ecosystems at both upstream and downstream sites throughout the study, ecological monitoring showed that in fact the stream is of high value, even within 120 metres of the point of discharge, but more so further downstream and within areas of riparian screening.

17. It was found that even upstream of the discharge point dissolved reactive phosphorus and total phosphorus always exceeded the ANZECC guideline for the maximum DRP and TP to avoid undesirable growths, yet the ecological quality of the stream's ecosystems was found to be very high in spite of this.

18. High nitrate levels were found throughout the stream in April, after the pond discharge had long since ceased, following a prolonged period of heavy rain. It appears this nitrate was driven by high groundwater tables. This is consistent with other Council data that shows high nitrate concentrations to be a wet weather/winter event in Taranaki, rather than a summer issue when the potential for the proliferation of undesirable aquatic growths is at its highest. In other words, a single rainfall event can cause as much nitrogen loading on a stream, as a month of discharge from a treatment pond. The highest in-stream nitrate concentration occurred in the absence of any pond discharge.

19. The loadings of total phosphorus and dissolved phosphorus due to the rainfall event were both higher than occur due to a pond discharge, but in this case the difference was only 60%. The organic loading due to the rainfall event was much higher than occur due to a pond discharge. In this case the difference was 8 times greater. In other words, a single rainfall event can cause as much organic loading on a stream, as more than a week of discharges from a treatment pond.

20. This study suggests that if the Council wishes to give specific consideration to avoidance of cumulative effects, then this needs to be directed to situation where there are multiple treatment pond discharges located somewhere in the range of within 120 to 450 metres of each other. This is a matter that can be addressed in the interim via individual consent applications, and in due course within the context of the review of the Council's Regional Freshwater Plan (due in 2011).

Recommendations

THAT the Taranaki Regional Council:

1. receives this memorandum on the preparation of a report presenting the results of a study into the in-stream assimilation and dilution of the discharge from a diary effluent treatment pond system;

2. notes that the study provides information on the rate of assimilation that assists in the consideration of the potential for cumulative effects, and their avoidance; and

3. notes that the Council has opportunity to consider this information further at the time of review of the Regional Freshwater Plan for Taranaki.

Approved:

GK Bedford
Director-Environment Quality

B G Chamberlain
Chief Executive

Executive summary

In October 2006 the Taranaki Regional Council released a report on the characteristics of dairy shed oxidation pond discharges in Taranaki (*Dairy shed oxidation pond discharges in Taranaki: a study and discussion of oxidation pond performance, management and environmental effects*, Taranaki Regional Council, October 2006). The Taranaki Regional Council's *Regional Freshwater Plan for Taranaki* specifies that if ponds satisfy certain criteria relating to pond sizing and dilution capacity in receiving waters (amongst other matters), then an application for a resource consent allowing discharge from those ponds may be assessed as a 'controlled' activity- that is, the consent must be granted by the Council (while the Council may still impose conditions upon the nature of the pond's operation and the level of environmental performance required). Given that by definition the Council has no option but to allow a 'controlled' activity to proceed, the purpose of the study was primarily to relate actual performance against conformance with the Council's criteria, to determine whether the criteria providing for this category of activity give adequate protection against unacceptable adverse environmental effects.

The results demonstrated that a pond system designed and sized generally in accordance with the Council criteria, and consistently achieving a dilution ratio of 100:1 or greater, is unlikely to result in effects on the environment that are more than negligible, in either duration or degree of severity.

Effects on in-stream biological quality reflected the variations between pond systems in terms of their design and operation, and in dilution ratios. Biological effects ranged from undetectable to significant in nature. Some data indicated that causes other than the degree of biological treatment were having an effect e.g. the presence of elevated copper in the discharge. It was also noted that other factors, such as shading from riparian vegetation, appear to influence the potential effects. Where downstream riparian vegetation is good, effects from a dairy pond discharge on macroinvertebrates and other indicators of in-stream ecology can be attenuated. Significant recovery from effects, where they were shown, was noted to occur generally within 150 metres.

However, the potential for cumulative effects of multiple discharges entering any particular water body is noted. This was not a component of the study reported in 2006.

Accordingly, a consequent study was designed and commissioned, to look more closely at the rate of assimilation and/or dilution of a discharge, in order to ascertain whether criteria can be developed for managing cumulative effects i.e. controlling the number and effects of multiple discharges in close proximity into the same receiving environment.

The study was focused on a pond discharge located south-east of Mt Taranaki, that is the highest point source discharge within its particular catchment. The Tuikonga Stream arises within farmland on the lower slopes of the mountain, and is fed by ground seepage.

The significant findings of this study are as follows:-

Under the Council's *Regional Freshwater Plan for Taranaki,* the dilution required for a dairy discharge to be assessed as a 'controlled' activity is 1:100 at all times. At this site, the dilution prevailing for the bio-monitoring investigation conducted ahead of the physico-chemical sampling programme was 1:360, with the stream receiving a relatively high-strength waste

(representative of an under-sized rather than correctly sized pond system) due to the presence within the pond of a large volume of accumulated sludge that reduced its effective volume. Under these circumstances, a high quality in-stream ecosystem was found present at the first downstream site, 120 metres below the discharge point. The in-stream dilution during the first sampling run for physico-chemical analysis was approximately 1:200. The flow from the pond was prolonged for several hours on this discharge occasion. When the discharge pipe was subsequently cleared, the dilution rate fell to 1:30-1:40 at peak flow rates, lasting a couple of hours- which would not have been open for consideration as a 'controlled' activity, even though the daily mass discharge of contaminants under the two regimes (and therefore presumably the in-stream effects) would be identical.

It can be noted that a 24-hour discharge at a dilution of 1:360 provides the same daily mass discharge as two 2-hour discharges at a dilution of 1:60.

The implication is that a short duration high strength dairy pond discharge of low dilution will have only a negligible effect beyond the standard mixing zone. However, this hypothesis was not tested further, and a 'controlled' activity provision requires a high degree of certainty and robustness. Thus, the current Plan's provision of 1:100 'at all times' for a controlled activity may appear conservative but is considered appropriate in the level of protection it affords. The Plan's criterion of 1:100 should be applied as a 24-hour average rather than an instantaneous limit applicable at times of peak discharge.

The biological survey showed that the stretch of stream studied, located close to the head waters of a lowland stream, was nevertheless of very high ecological quality. This is of significance when considering the value of first-order streams. The effects of riparian vegetation are especially apparent at several of the sites, confirming the valuable contribution of riparian vegetation to enhancing in-stream ecosystems.

Typically, MCI values in ringplain streams decline with increasing distance from their source, due to diffuse and point source discharges and changes in stream morphology and riparian shading. For a stream of the sort in this study, a typical rate of decline is considered to be 1-2 MCI units per kilometre (*pers comm* C Fowles). For the stream in question, there was actually an increase from Site 1 to Site 5 (MCI of 102 increasing to 105), with significantly higher values at the site with the greatest degree of riparian shade, when a decline of 1.5-3 MCI units would have been expected given the distance between Sites 1 and 5. With marginal (insignificant) declines between Sites 1 and 5 in a couple of water quality parameters, and others consistent between the two sites, other environmental factors such as riparian planting must be playing a role in the increase in ecological condition observed below the discharge.

In determining the in-stream removal of contaminants such as nutrients, it was assumed in this study that the strength of the discharge measured within the pond was unchanged as it flowed down the bank to the stream. It is more than likely that a measure of attenuation actually occurred within this zone when the flow from the pond was constricted. However, once the blockage was cleared (February), the flow was rapid and any attenuation from overland flow would be comparatively minor. Given that the strength of the pond effluent was higher than typical for a pond system sized according to the Council's criteria for a 'controlled' activity, it is considered that the findings of this study still have a wider relevance.

The study found that the removal of ammonia (including the mechanism of transformation to nitrate) occurs at a very significant rate (43-95%) within 120 metres of the discharge point, even under conditions of very low dilution (high in-stream concentration). The removal of nitrate proceeded at a lower rate, with continuing removal of nitrate evident between Site 2b (120 metres below discharge) and Site 4 (450 metres below discharge), and further removal between Site 4 and Site 5 (1.55 kilometres below the discharge point). At Site 5, nitrate levels were the same as at the upstream site, Site 1, during periods of discharge (i.e. the nitrate was fully assimilated by this point), and after discharge ceased, nitrate levels at Site 5 were lower than at Site 1.

High nitrate levels were found throughout the stream in April, after the pond discharge had long since ceased, following a prolonged period of heavy rain. It appears this nitrate was driven by high groundwater tables. This is consistent with other Council data that shows high nitrate concentrations to be a wet weather/winter event in Taranaki, rather than a summer issue when the potential for the proliferation of undesirable aquatic growths is at its highest.

It was found that the removal of biochemical oxygen demand (a measure of the organic content) occurs at a very significant rate (33-77%) within 120 metres of the discharge point, even under conditions of very low dilution (high in-stream concentration). Even given that the discharge was higher than typical in BOD, at this downstream site all results except one met the Council's criterion for the permitted effects of a 'controlled' activity on in-stream BOD. Further reductions, to return to background concentrations, occurred by Site 4. That is, by 450 metres below the discharge point the BOD from the pond discharge was fully assimilated.

Because of high variability in indicators of bacteriological contamination such as counts of faecal coliforms, caution needs to be applied to the interpretation of the study's data. However, at the first downstream site (120 metres), faecal coliform removal was found to be between 0 and 100%- the lowest removal rate apparently being at the lowest dilution rate and in the morning, and high removal rates at greater dilution and in the afternoon. On most occasions while discharge was occurring, the counts of faecal coliforms were lower at the downstream site than the upstream site.

It was found that the removal of reactive dissolved phosphorus (a nutrient that can cause undesirable growths in higher concentrations) occurs at a very significant rate (84-100%) within 120 metres of the discharge point, even under conditions of very low dilution (high in-stream concentration). It was also found that even upstream of the discharge point DRP and TP always exceeded the ANZECC guideline for the maximum DRP and TP to avoid undesirable growths, yet the ecological quality of the stream's ecosystems was found to be very high. The rate of removal of total phosphorus was lower than for DRP; this is not surprising given that a proportion of TP is present in insoluble form, and is therefore less readily available. At 120 metres, removal of TP lay in the range 19-69%; at Site 4 a further 20% was generally removed during the period when discharge was still continuing. Further reduction of TP and DRP occurred through to Site 5, 1.55 kilometres below the discharge point. Once discharge ceased, sites 4 and 5 were very similar to the upstream site i.e. levels of TP and DRP were stable throughout the stream, suggesting that these concentrations were residual levels (even though above ANZECC guidelines).

Overall, there was effective attenuation within 120 metres for ammonia and DRP, and within 450 metres for BOD and faecal coliforms, and within 1.55 kilometres for TP and nitrate.

While both nitrate and phosphorus concentrations exceeded the ANZECC guidelines for avoidance of adverse effects upon aquatic ecosystems at both upstream and downstream sites throughout the study, ecological monitoring showed that in fact the stream is of high value, even within 120 metres but more so further downstream and within areas of riparian screening.

A comparison of daily mass loadings of various contaminants from the pond system with those present in the stream during a heavy rainfall event, found that while the pond system contributed a larger daily ammonia loading than was flowing down the stream during the rainfall event, the total nitrogen loading during the rainfall event in question was well over 30 times greater than that originating from the pond system. In other words, a single rainfall event can cause as much nitrogen loading on a stream, as a month of discharge from a treatment pond. The highest in-stream nitrate concentration occurred in the absence of any pond discharge.

The loadings of total phosphorus and dissolved phosphorus due to the rainfall event were both higher than occur due to a pond discharge, but in this case the difference was only 60%. The organic loading due to the rainfall event was again much higher than occur due to the pond discharge. In this case the difference was 8 times greater. In other words, a single rainfall event can cause as much organic loading on a stream, as more than a week of discharges from a treatment pond. Undue significance should not be placed on these figures (they are site- and event-specific, and do not consider the likely consequences for aquatic ecology), but assist in illuminating the range of considerations that must be applied in aquatic resource management.

Given that streams in Taranaki tend to be phosphate-limited, this study suggests that for avoidance of cumulative effects, specific consideration should be given to the possible consequences of multiple treatment pond discharges if they are located within 120 to 450 metres of each other.

The Taranaki Regional Council wishes to express its appreciation to the farmers who allowed Council staff access to the site throughout the season, and without whose co-operation this study would not have been possible.

Document: 534061

ITEM SEVEN

Back to index

20 November 2008

Memorandum to
Chairperson and Members
Policy and Planning Committee

Biosecurity Surveillance Strategy 2020

Purpose

1. To introduce the discussion paper entitled *Biosecurity Surveillance Strategy 2020* prepared by Biosecurity New Zealand and to recommend endorsement of officer comments on that Strategy.

2. A copy of the executive summary to the Strategy (**Appendix I**) and the Council's feedback on the Strategy (**Appendix II**) are attached to this memorandum. Full copies of the Strategy are available to Members on request.

Key matters raised for Members' information in this item are:

- Biosecurity New Zealand has sought comments on the discussion paper *Biosecurity Surveillance Strategy 2020*.
- The Strategy sets out goals, outcomes and actions relating to leading biosecurity surveillance, working together, delivering quality surveillance and sharing information.
- Officers have completed a feedback form on the Strategy.
- Key messages include support for a single national agency (i.e. Biosecurity New Zealand) being charged with the oversight and coordination role for New Zealand's biosecurity surveillance system, the need for further discussion to identify opportunities for councils to contribute to national surveillance programmes, the need to focus on surveillance activities within New Zealand (not just at the border), and the need for further detail on mechanisms to implement the Strategy.

Background

3. The *Biosecurity Strategy for New Zealand*, endorsed by the Government in 2003, identified key expectations necessary to ensure its biosecurity systems are adequately protecting New Zealand's economy, environment and people. Amongst other things, the Biosecurity Strategy called for policy on developing surveillance systems that are co-ordinated in a responsive and flexible manner, and improve coordination of information sharing

4. With ongoing growth in tourism and trade, the pressures on the biosecurity systems continue to increase. While interventions at the border can help prevent the introduction of pests and diseases of concern to New Zealand, surveillance systems are needed to ensure those risk organisms that evade border controls are detected. Therefore, in September 2008, Biosecurity New Zealand released the discussion paper *Biosecurity Surveillance Strategy 2020* (the Strategy).

5. The Strategy is part of a package of national policy development and is a major step forward in meeting expectations set out in the Biosecurity Strategy for surveillance. It is a high level policy document that sets out goals, outcomes and actions grouped under the following four themes:
   - leading biosecurity surveillance
   - working together
   - delivering quality surveillance
   - sharing information.

6. Key stakeholders, including regional councils, have been invited to provide comment on the Strategy. The deadline for comments was **5 November 2008**, which precluded officers from being able to present the Strategy and a draft response to Members for their consideration.

7. The attached feedback form has been completed by officers and forwarded to Biosecurity New Zealand for their consideration. Set out below is a summary of the issues raised by officers in the feedback form.

Issues raised by Council

8. The Council has biosecurity responsibilities under the Biosecurity Act 1993, particularly as the management agency for the *Pest Management Strategy for Taranaki: Animals* and the *Pest Management Strategy for Taranaki: Plants*. Furthermore, the Council has advocacy responsibilities whereby it represents over 100,000 people within the Taranaki region on matters of regional interest and concern.

9. Biosecurity New Zealand requested that submitters directly respond to the Strategy via a feedback form that included 30 questions. Council feedback on the Strategy was generally supportive and its comments primarily relate to the following key messages:

   - The Council supports a single national agency (i.e. Biosecurity New Zealand) being charged with the oversight and coordination role for New Zealand's biosecurity surveillance system. It is suggested that national leadership is required to develop and deliver an integrated whole-of-system approach to surveillance across New Zealand.

   - At a regional level, the Council is able to support national-led surveillance programmes. It is noted that the Council's state of the environment monitoring and emergency response programmes (in addition to its field capacity, local networks, and experience and expertise) represent an opportunity to add value to or be part of a national surveillance programme. However, discussion relating to when, where, under what circumstances, and how much, needs to occur.

   - The focus of the Strategy is on border control, however, Council suggests that a whole-of-system approach would also address surveillance activities post border. In

the case of Taranaki, incursions of Argentine ants (2006) and rainbow skinks (2008) from other parts of New Zealand have occurred. In both cases, Biosecurity New Zealand became aware of the incursion of these organisms but failed to provide that information to the Council so that it could consider management options to prevent their establishment in the region.

- The mechanisms to implement the Strategy are vague. Further detail is sought in the Strategy to 'operationalize' it and identify how things will be implemented, e.g. need to identify key pathways, species or groups for which surveillance activities are required.

Decision-making obligations

10. Part 6 (Planning, decision-making and accountability) of the Local Government Act 2002 has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the Act.

Policy considerations

11. This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the Local Government Act 2002, the Resource Management Act 1991 and the Biosecurity Act 1993.

Financial considerations

12. This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Council Community Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Legal considerations

13. This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Recommendations

THAT the Taranaki Regional Council:

1. receives this memorandum on the *Biosecurity Surveillance Strategy 2020*, including executive summary of the Strategy; and

2. endorses the attached response to the Strategy.

Approved:

RA Phillips
Director – Operations

B G Chamberlain
Chief Executive

Document: 534061

FEEDBACK FORM

MAF BIOSECURITY NEW ZEALAND: BIOSECURITY SURVEILLANCE STRATEGY 2020

Consultation feedback on the draft Biosecurity Surveillance Strategy

Consultation Feedback

September 2008

Consultation Feedback the draft Biosecurity Surveillance Strategy

MAFBNZ is seeking your input into the draft of the Biosecurity Surveillance Strategy to ensure that:

- **the proposed direction of biosecurity surveillance until 2020 is appropriate**
- **the realisation of the goals detailed will meet the vision**

The draft Surveillance Strategy is a starting point, developed for the purpose of stimulating ideas and encouraging feedback. It is a work in progress and needs your input to ensure that the goals we set are appropriate.

When completed the Biosecurity Surveillance Strategy will guide the decision making by Government in the area of biosecurity surveillance for the next 10 years. This will be achieved by providing goals and priority actions, so it is important that the strategy meets the expectations of those with a role or interest in biosecurity surveillance.

We need your input to make this happen

This feedback sheet poses a series of questions about key areas of the document, about which we would particularly appreciate your thoughts. We also welcome other feedback about any part or aspect of the biosecurity surveillance system that you feel is important and relevant to the development of our future biosecurity surveillance system.

To assist in the feedback process:

- It would be appreciated if your feedback is **consolidated to represent your organisation or group**.
- Please keep feedback on the biosecurity Surveillance strategy as **concise** as possible.
- **Please complete your feedback electronically** in this document as it will make it easier for us to collate all of the responses that we receive.

Please respond to NZBiosecuritySurveillance@maf.govt.nz with written comments by **5pm Wednesday 5 November 2008**

If you have any questions, or require further information, please contact us by email at NZBiosecuritySurveillance@maf.govt.nz. **Please complete your details below**

Organisation/Group	**Taranaki Regional Council**
Contact Person for follow-up	**Chris Spurdle**
Phone	**(06) 765 7127**
Email	**chris.spurdle@trc.govt.nz**

VISION

Page (10)

New Zealand's vision for biosecurity is supported by working together to deliver efficient surveillance and by gathering, sharing and using biosecurity information effectively

Question	Response
To what extent will the biosecurity surveillance vision for 2020 contribute to the New Zealand Biosecurity Vision? How could we improve it?	The Taranaki Regional Council (the Council) suggests amending the vision to deleting reference to "…*working together*" so that the vision reads "….*New Zealand's vision is supported by the delivery of efficient surveillance and gathering, sharing and using biosecurity information effectively*". The Council suggests that "…*working together*" is one of a number of goals/methods necessary to achieve efficient surveillance and should not be highlighted to the detriment of other equally useful goals/actions. Other goals/methods such as system leadership, delivering quality surveillance, and information transfer are arguably just as essential or more essential to achieve efficient surveillance.
Do you see this as an appropriate vision for biosecurity surveillance? How could we make it more relevant?	See comments above.
Other comments on this section.	No additional comment.

LEADING BIOSECURITY SURVEILLANCE

Pages (13 -16)

MAFBNZ has a leadership and co-ordination role in the New Zealand government's biosecurity activities and ensures that the biosecurity surveillance system leadership is provided and that shared responsibility is promoted.

Question	Response
Is this an appropriate leadership model to maximise the outcomes of the biosecurity surveillance system? How would you like the model changed to more clearly	In part. The Council supports and agrees with MAF BNZ providing the leadership and co-ordination role in New Zealand's biosecurity surveillance system. The Council suggests deleting reference to shared responsibility in the goal. As noted in the explanation, national surveillance will usually be the

reflect your needs?	responsibility of MAF BNZ and it is unhelpful to have a leadership goal that focuses on devolving and/or 'sharing' surveillance responsibilities with other stakeholders. The Council recognises that other stakeholders, such as local governments and industry, will, on occasion, have a role in delivering or supporting surveillance activities. However, the Council suggests that such matters are more appropriately addressed in the section "Working Together" (as noted in the explanation to Goal 1).
To what extent will achieving the goals likely to deliver the anticipated positive outcomes for the biosecurity surveillance system? Why? Why Not?	A goal that focuses on MAF BNZ providing good leadership should promote accountability and transparency to ensure the expected outcomes outlined in section 7.1.1 are achieved. The Council further suggests that a single national organisation charged with the oversight and coordination role for New Zealand's biosecurity surveillance system is more likely to deliver and/or develop an integrated whole-of-system approach to surveillance across New Zealand. Under previous institutional arrangements the delivery of surveillance was *ad hoc* and piecemeal.
What do you see as the potential difficulties associated with achieving the goals set out in this section?	Implementation. Ensuring political commitment and resources are in place for a single organisation to develop the systems, processes and stakeholder relationships necessary to achieve the goal.
Is it clear what the purpose of this section is? Do you have comments on how it could be made clearer?	See comments above.
Other comments on this section.	No additional comment.

WORKING TOGETHER

Pages (17 – 24)

There is a strong emphasis in the Biosecurity Strategy on working together to maximise the outcomes of the biosecurity system as a whole

Question	Response
Do you see working together and close integration of surveillance activities as an appropriate model for the biosecurity surveillance system?	Yes. The Council supports the development of effective partnerships to advance biosecurity surveillance activities in an efficient and effective manner.
What would you consider your role in the biosecurity surveillance system to be and what subsequent responsibilities would you need to undertake?	The Council has biosecurity responsibilities under the Biosecurity Act 1993, particularly as the management agency for the *Pest Management Strategy for Taranaki: Animals* and the *Pest Management Strategy for Taranaki: Plants*. Furthermore, the Council has advocacy responsibilities whereby the Council represents over 100,000 people within the Taranaki region on matters of regional interest and concern. At a regional level, the Council is able to support national-led surveillance programmes. The Council has a field capacity, local networks, and experience and expertise to contribute to surveillance programmes. However, discussion relating to when, where, under what circumstances, and how much, has yet to occur.
Is it clear what this section is trying to express? Do you have any comments on how it could be made clearer?	The Council suggests much of this section is sensible – the issues have been reasonably expressed.
What do you see as the potential difficulties associated with achieving the goals set out in this section?	In terms of working with different stakeholders on surveillance activities, the Council is primarily concerned that cohesive and comprehensive systems are in place to minimise the likelihood of new pests and diseases becoming established in New Zealand by ensuring incursion events are managed in an efficient and timely fashion. As currently presented, the mechanisms to deliver on the working together goals are vague. Further detail is required on how things are to be achieved.
Other comments on this section.	In the same manner as MAF BNZ has prepared a discussion paper on developing a framework for better relationships with industry, the Council

	strongly advocates for similar work to be undertaken for developing stronger partnerships with regional councils. There is a need, particularly in the areas of surveillance or incursion response, for better coming together to make maximum use of existing regional council programmes such as state of environment monitoring and emergency response management. Of note, the Council's state of the environment and other monitoring programmes represent an opportunity to add value to or be part of national-led surveillance programmes.

DELIVERING QUALITY SURVEILLANCE

Pages (25-29)

The biosecurity system is dependent upon delivering surveillance programmes of appropriate quality to meet expanding risks

Question	Response
What changes are required to meet your future biosecurity surveillance needs? Does this require changes in quality systems?	National leadership and direction. Better communication – need to ensure the quick transfer of information to other stakeholders. Development and integration of national, regional and local surveillance systems.
In your experience what determines the appropriate level of biosecurity surveillance quality?	Resourcing. As noted in the section 8.3 explanation the resources available for biosecurity activities are finite. Resourcing determines the scope of surveillance programmes and ensures the development and implementation of best practice, technologies and sampling methodologies. However, ensuring systems and processes are in place to engage and inform other stakeholders is also important.
Is it clear what this section is trying to express? Do you have any comments on how it could be made clearer?	Yes. See comments below.
What do you see as the potential difficulties associated with achieving the goals set out in this section?	Difficulties associated with achieving the goals relate to matters already discussed in the Strategy and this submission, e.g. leadership, adequate resourcing, the effectiveness of partnerships etc.
Other comments on this section.	The goal for surveillance design is not very helpful. Goal 7 refers to selecting surveillance programs meeting their specified objectives yet is 'silent' on what these 'specified objectives' might be, or the process/criteria for determining surveillance objectives etc. An alternative goal is to ensure the design and mix of surveillance activities is responsive to New Zealand's biosecurity needs.

SHARING INFORMATION

Pages (30 – 34)

To perform to the highest standards, the biosecurity system must be supported by the timely delivery of robust and reliable information

Question	Response
What biosecurity surveillance-related information do you need? How would information sharing assist you in realising the full potential of your activities?	Any information relating to the distribution and prevalence of organisms already present in New Zealand but not yet widespread and/or present in Taranaki. The exchange of information would assist the Council in terms of enabling early pest management action that avoids harmful organisms becoming established in the region and having an adverse effect on the local economy or the environment. This includes raising public awareness. However, it is suggested the most significant benefit from the sharing of information would be that it would allow the Council to contribute to MAF BNZ surveillance programmes – either through passive or active surveillance, public reporting, or one of the Council's monitoring programmes.
Can you identify any significant gaps in the content of this section?	There is an expectation in Section 10.4 [Engagement and communication] that participants in biosecurity surveillance will provide complete and accurate data and/or information to each other in a timely manner. However, the section goal and explanation focuses on meeting the individual information needs of stakeholders rather than how we can collectively contribute to national surveillance through the exchange of information.
Is it clear what this section is trying to express? Do you have any comments on how it could be made clearer?	Yes. Refer to comments in this section.
What do you see as the potential difficulties associated with achieving the goals set out in this section?	Establishing adequate communication channels between all stakeholders involved or affected by surveillance activities – recognising that biosecurity may, in some instances, be of peripheral interest.
Other comments on this section.	No additional comment.

MAKING IT HAPPEN

Pages (35 – 40)

The actions required to implement the goals for the Biosecurity Surveillance Strategy

Question	Response
Which of these actions do you see as most important for achieving the goals set out in the strategy? What actions need to be added, modified or removed?	All of them are essential to achieving the goals for surveillance.
What do you consider the urgent actions?	As above.
What actions would you, or your organisation, commit to being involved with?	The Council would be happy to discuss opportunities for supporting national surveillance programmes. Of note, the Council's state of the environment monitoring and emergency response programmes represent an opportunity to add value to or be part of national surveillance programmes.
In your consideration what would be the best structure for the successful implementation of the Biosecurity Surveillance Strategy?	Surveillance is an integral part of biosecurity. It is therefore suggested that governance structures already established are sufficient for the successful implementation of the Strategy. However, the successful implementation of the Strategy is also dependant more upon communication (and networking) outside the governance structures.
Other comments on this section.	As currently presented, the mechanisms to deliver on the working together goals are vague. Further detail is required on how things are to be achieved. The Council recognises that the Strategy is a high level document. However, a key step will be 'operationalizing' the Strategy and identifying key pathways, species or groups for which surveillance activities are required.

General Comments on Biosecurity Surveillance

Do you have any general comments about the future direction of biosecurity surveillance? What is missing and should be considered for inclusion?

General comments or content that should be added to the document
The focus of surveillance is on border control, however, Council suggests that a whole-of-system approach should also address surveillance post border. In the case of Taranaki, incursions of Argentine ants (2006) and rainbow skinks (2008) from other parts of New Zealand have occurred. In both cases, MAF BNZ became aware of the incursion of these organisms but failed to provide that information to the Council so that it could consider management options to prevent their establishment in the region.

Document: 534662

ITEM EIGHT

20 November 2008

Back to index

Memorandum to
Chairperson and Members
Policy and Planning Committee

State of the Environment Report for Taranaki

Purpose

1. The purpose of this memorandum is to update members on progress with the preparation of the next *State of the Environment Report for Taranaki*.

2. The report is at an advanced stage of preparation with the text, graphs, maps and photos recently submitted to external designers for formatting.

Background

3. Under the Resource Management Act 1991 (RMA) regional councils are required to monitor the overall state of the environment of the region. Monitoring the state of the environment is important because it tells the Council and the wider community how successful or otherwise we have been as a community in promoting the sole purpose of the RMA – the sustainable management of our natural and physical resources. While the report looks back on environmental trends and changes over the past five to 10 years or more, its fundamental outlook is forward looking.

4. This is the third state of the environment report for Taranaki – the earlier reports were prepared in 1996 and 2003, respectively. Such reports help us answer questions such as is the quality of our environment improving or deteriorating? Have our policies and programmes been effective in promoting sustainable management? What standard of environmental quality do we want in Taranaki and what changes, if any, are required?

5. The purpose of the state of the environment report is to provide high quality environmental information that is accessible and understandable to the Taranaki community at large and upon which sound resource management decisions can be based in future.

6. The environment is managed by a number of organisations, not just the Council. For that reason this report has attempted to incorporate environmental monitoring information from other agencies such as the Department of Conservation, the three district councils, the Ministry for Fisheries and the Ministry of Agriculture and Forestry, in addition to a number of community groups.

7. Much of the information contained in the report is based on comprehensive state of the environment monitoring programmes established by the Council in the mid-1990s.

These programmes have been purpose-built for state of the environment monitoring and have now been running for sufficient lengths of time to enable statistical testing of trends in the data.

Structure of the report

8. The report is organised around the core resources of land, fresh water, coast, air as well as landscape, natural and built heritage and amenity values, natural hazards, waste and energy. It has 11 chapters:

Chapter 1: Introduction
The introduction describes the purpose and content of the report and how information is organised and presented.

Chapter 2: Taranaki people and place
The second chapter describes the physical, economic and social characteristics of the region. This is important because managing natural and physical resources and the environment takes place within and is influenced by these wider physical, economic and social circumstances.

Chapter 3: Land, soil and biodiversity
This chapter addresses soil erosion and soil health issues and the management of contaminated sites and hazardous substances. Biodiversity or biological diversity means the variability among living organisms and the ecological complexes of which they are a part. The biodiversity section of this chapter looks at biodiversity on land.

Chapter 4: Fresh water
The chapter on fresh water considers a wide range of issues relating to fresh water, rivers and lakes. Reporting on water quality considers the effects of point and diffuse source discharges on water quality in rivers, streams and lakes and forms a major part of this chapter. Water quantity is addressed from the point of view of water flows, use and availability. Also reported on are groundwater quantity and quality. Fresh water biodiversity, in terms of ecosystems (rivers and wetlands), invertebrates and fish are considered. Finally, public use and access to rivers and lakes is examined.

Chapter 5: Coastal and marine environment
This chapter discusses coastal water quality, natural character of the coast, biodiversity of the coastal marine area and public use and access to the coast. Coastal erosion is addressed in the Natural Hazards chapter.

Chapter 6: Atmosphere
This chapter addresses overall air quality in Taranaki as well as issues surrounding greenhouse gases and climate change.

Chapter 7: Landscape, historic heritage and amenity values
This chapter looks at Taranaki's natural landscape features, historic heritage resources such as our historic buildings and places and archaeological sites and amenity values – those things that make up or detract from an enjoyable and pleasant living environment.

Chapter 8: Natural hazards
The chapter on natural hazards reports on the main natural hazards in Taranaki – flooding, volcanic activity, earthquakes, high winds and land instability and erosion, including coastal erosion.

Chapter 9: Waste
This chapter looks at the situation with regard to waste and how it is managed in Taranaki.

Chapter 10: Energy
This chapter looks at energy production, distribution and use in Taranaki. It looks at both renewable and non-renewable sources of energy.

Chapter 11: Towards sustainable development in Taranaki
This concluding chapter draws together the underlying directions and approaches to managing the environment described in the previous chapters and comments on what this means for sustainable development in future.

9. Each chapter:

- begins with an opening scene-setting introduction which explains why this part of the environment is significant for Taranaki people and what the major pressures on the environment are;
- describes the current state of each aspect of the environment – core information is presented on the state of the environment and key trends or changes over time;
- outlines the management responses to environmental conditions now and in the future. Information is presented on what is being done now to address issues raised in the preceding text and what might be done in the future;
- provides a summary of progress in implementing regional objectives and policies in relation to the chapter topic; and
- provides regional comparisons where relevant information is available. This information enables comparisons to be made between environmental conditions and trends in Taranaki and other parts of New Zealand.

Design features

10. As the Council's premier state of the environment reporting mechanism, the final report will communicate to the community information about the environment in a manner that is informative, well structured and eye-catching. The text will be illustrated with innovative graphs, comprehensive maps using GIS technology and high quality photos.

11. A key feature of the report will be over 40 case studies highlighting the efforts of individuals, industries and community groups in making a positive difference for the environment.

12. A summary report of the key highlights will be produced and the document will be made widely available and available on the internet.

Proposed publication and launch

13. The next stage for the report is for the designers to prepare a first proof of the report. It is anticipated that this will be received in early December, for a final proof reading.

14. It is then anticipated that the report will be printed early in the new year, with an expected delivery date of the final published report by the end of February 2009.

15. This will then allow a formal launch of the report to take place sometime in March 2009.

Recommendation

THAT the Taranaki Regional Council:

1. notes that progress is on track for the production of the next *State of the Environment Report for Taranaki* with an anticipated publication and launch date early in 2009.

AD McLay
Director-Resource Management

Approved:

B G Chamberlain
Chief Executive

Document: 534352

ITEM NINE

20 November 2008 Back to index

Memorandum to
Chairperson and Members
Policy and Planning Committee

Proposed National Policy Statement for Freshwater Management

Purpose

1. The purpose of this memo is to introduce to members a *Proposed National Policy Statement for Freshwater Management* and issues that could be raised in a submission on behalf of the Council.

2. A copy of the Proposed National Policy Statement for Freshwater Management is attached.

3. The closing date for submissions is the 23 January 2009 and staff will not be able to present a draft submission to Members given this deadline.

Background

4. The Government has prepared a proposed National Policy Statement for Freshwater Management for public notification under the Resource Management Act. A Board of Inquiry has been appointed to inquire into and report on this policy statement. The Board members are:

    - Judge Sheppard (Chair);
    - Jenni Vernon;
    - Kevin Prime; and
    - Jon Harding.

5. The Board is calling for public submissions. The Board's terms of reference specifically asks the Board to report to the Minister on recommendations on how councils should give effect to this policy statement.

6. The purpose of the Proposed Freshwater NPS is to set out objectives and policies for the management of freshwater resources as a matter of national significance in order to achieve the purpose of the Act.

7. The Proposed Freshwater NPS includes nine objectives. These relate to:

    - enabling wellbeing of people and communities;
    - ensuring integrated management of effects on fresh water;

- improving the quality of fresh water to ensure appropriate freshwater resources can reach or exceed a swimmable standard;
- recognising and protecting life supporting capacity and ecological values;
- addressing freshwater degradation;
- managing demand for fresh water;
- efficient use of fresh water;
- iwi and hapu roles; and
- ensuring effective monitoring and reporting.

8. The policy statement then sets out nine policies. These include a raft of tasks that regional and district councils would need to do to give effect to the NPS:

    - The first policy would require councils to amend their regional policy statements to identify when freshwater quality standards and environmental flows would be set, identify 'notable values' of high value and degraded waterways, identify iwi values, provide guidance for regional plans on prioritising water use, promoting efficient water use, ensure integrated management of effects of land use;
    - The second and third policies set out the matters than a regional and district plan would need to include to give effect to RPSs developed under the first policy;
    - The fourth policy sets out another list of matters that would need to be addressed in a regional freshwater plan – identifying values of waterways, identifying the sensitivity of waterways to effects of landuse, identifying the importance of over-allocation of freshwater, and considering the value of swim-ability to the community;
    - The fifth policy relates to matters district plans would need to address, primarily to address land use development;
    - Policy six sets out matters that should be included as conditions of consents, including efficient use of water, protection against degradation of the quality, integrated management of land use. It notes these could be achieved through the use of industry good practice;
    - Policy seven notes that local government could give effect to the NPS through non-regulatory means;
    - Policy eight would require local authorities to keep up to date information on tangata whenua values and a register of regulatory and non-regulatory methods used; and
    - Policy nine sets out when the Minister for the Environment will undertake an independent review.

Proposed response from Local Government New Zealand

9. Local Government New Zealand (LGNZ) intends to develop a submission on the Proposed Freshwater NPS on behalf of the local government sector. As such, an issues and options paper has been scoped to form the basis of such a submission.

10. LGNZ have stated that they consider the NPS needs to:

- provide stronger policy direction to local government decision makers in respect of the key freshwater management issues;
- that it needs to provide for an holistic, integrated approach to local government decision making to take into account the complex interrelationships between freshwater issues;
- provides flexibility for local authorities to address issues in a manner that is appropriate at a region scale; and
- provide clarity around whether there are (or are not) any national priorities or targets for freshwater management.

11. Issues that LGNZ's paper intends to discuss the following:

- Viewing freshwater management in an holistic manner using a 'systems' based approach to decision making;
- Setting targets and identification of values in order to provide better guidance for local authorities;
- Water allocation – setting priorities – suggesting that the NPS should assist local authorities to prioritise municipal supply and then determine priority for other users based on circumstances of the region;
- Over allocation of water – suggesting the NPS needs to provide policy guidance for regional councils to address this issue;
- Cumulative effects;
- Managing at risk catchments – suggesting that there are still a number of options to be considered when managing waterways that are below a certain standard;
- Uncertainty of information – decision-making in the face of a lack or uncertainty of information;
- Transferability of water permits;
- Tangata whenua issues – the onerous obligation on local authorities given limited resources;
- Time frames – particularly the very unrealistic timeframes set in place for notifying plan changes within 40 days of a regional policy statement being made operative;
- Relationship with other national documents;
- Monitoring and reporting – the NPS implies state of environment reporting in the objective but not specifically in the policies;
- Funding of implementation – particularly the significant costs that the NPS will impose on local authorities; and
- Definitions.

12. LGNZ proposes to consult on a final issues and options paper during November and prepare a submission by the 24 December.

13. Key questions that LGNZ is planning to ask councils when they consult on their issues and options paper are:

- Do you support an NPS for freshwater management?

- Do you support the overall objectives of the Proposed Freshwater NPS?
- Do you consider that the Proposed Freshwater NPS provides sufficient guidance for local authorities in managing their freshwater resources?
- Are there any other key issues or matters of guidance that you consider that a Freshwater NPS should address?
- Should the Freshwater NPS set priorities for uses of freshwater that apply nationally ? If so, what priorities would be appropriate ? (this is in relation to water allocation).
- Are 'swimmability' and 'protection of life supporting capactiy' appropriate 'national values' ?Are these values better expressed differently (e.g. as in the US Clean Water Act which articulates 'water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water'. Are there any other values that should be identified as 'national values'? (this is in relation to water quality).
- How should a Freshwater NPS allow for economic and social and cultural values in the context of improving water quality ?

Proposed submission from the Council

14. A draft submission has not yet been prepared for your consideration. It is highly likely that key points from the LGNZ submission will be adopted.

15. In addition, we will raise key points that are of particular relevance to Taranaki. In making our submission on the New Zealand Coastal Policy Statement it was clear that 'points of difference' were appreciated by the Board of Inquiry. Submission points are likely to discuss the following:

    - The justification of this national statement – it could be taken that a national instrument, which sets out a requirement for policy statements and plans to be prepared, has come about because current water management regimes are not delivering improved environmental results. Data to back up this statement comes from the Ministry of Environment 2007 State of the Environment Report which **did not** include regional council water quality data. One could argue that not all the nation's waterways are actually degrading and so a national policy instrument that treats all regions the same is not appropriate.
    - Rather, central government could direct specific resources to solving particular resource management problems that have been identified, e.g. the Taupo catchment, the Rotorua lakes (which have just received large amounts of Government funding), and water allocation in Canterbury;
    - Funding the implementation of the NPS – the need to come to grips with new terms, consultation required, identifying values, determining standards and environmental flows, identifying degraded waterways and the huge costs of processing plan and policy statement changes;
    - The justification for all councils to undertake changes to their regional policy statements – the recently revised *Regional Policy Statement for Taranaki* already identifies a number of matters listed in the NPS, but there appears no process for regional policy statements to be audited against the NPS, and so exempted from needing to undergo a formal plan change;

- The need for independent auditing of effectiveness of policies against environmental outcome monitoring before developing a national instrument that is broad brushed rather than specifically identifying problems in targeted areas;
- The language and clarity of the document – the long sentences, complicated language (potentially vulnerable to extensive litigation arguments) and random use of capital letters for the words that are defined. There is considerable use of the phrase 'guide and direct' throughout the NPS - is it possible to both guide and direct ?;
- The short timeframes;
- Tangata whenua/iwi/hapu – the mixture of definitions in the document, the huge resources that recognising all hapu may entail (in Taranaki there are 75 iwi and hapu in total);
- The ability of Taranaki **all** waterways to meet 'swimmable' standard, when many are small and not amenable to swimming, and needing to clarify exactly what this means – what variable would be the standard, where in the catchment, how soon after flood events which cause diffuse runoff from farms etc;
- The issue that regional policy statements should guide and direct the setting of water quality standards **and** environmental flows and levels for **all** waterways in the region, irrespective of size, end use, and values;
- We could support the type of approach adopted in the National Environmental Standard on domestic wastewater systems whereby a risk assessment was undertaken by the Council before developing a costly monitoring regime;
- A need to be practical and pragmatic when applying standards to waterways, and the difficulty of applying or developing appropriate environmental standards – for example Taranaki streams with headwaters in the DOC managed national park do not meet phosphorus guidelines (due to natural processes), so using those standards is not appropriate for Taranaki – yet developing Taranaki-specific phosphorus standards would require significant resources. There are similar issues around bacterial water quality due to animal pests in national parks in New Zealand;
- State of environment monitoring – our monitoring is showing that stream health is lower in the mid-lower catchments than in the upper catchments, but that stream health is generally staying stable, or measurably improving. This points to the importance of state of environment monitoring and the need to link it to policies;
- The *Freshwater Plan* and *Regional Policy Statement* already identifies waterways of significant value;
- The successful use of industry codes of practice as guides in our regional plans– e.g. in the *Regional Air Plan* and codes in the *Fresh Water Plan.* Some of the parameters from these codes have gone on to be used in rules; and
- The national importance of matters such as economic wellbeing as well as environmental considerations and the need to balance these values.

16. The *Fresh Water Plan for Taranaki* will be reviewed in 2011. The NPS may provide guidance for that review. It may also be helpful in identifying pieces of work required as part of that review to be undertaken over the next few years.

17. This policy is of crucial importance to the Council's freshwater management roles, and an issue that is too important to rush.

Recommendations

THAT the Taranaki Regional Council:

1. notes that the Proposed National Policy Statement for Freshwater Management has been notified for submissions;

2. notes that a submission will be prepared and presented; and

3. notes that a copy of the submission will be presented to the next meeting.

AD McLay
Director-Resource Management

Approved:

B G Chamberlain
Chief Executive

Document: 534494

ITEM 10

Back to index

20 November 2008

Memorandum to
Chairperson and Members
Policy and Planning Committee

Freshwater Science Society Conference in Taranaki

Purpose

1. The purpose of this memorandum is to advice members of an upcoming freshwater science conference, to be held in New Plymouth on the 24-27 November 2008. Freshwater management is a key responsibility of this Council and conference attendees will be able to ascertain through conference papers and tours what has been achieved in region over the last 25 years.

2. The programme is attached for members' information.

Background

3. The Freshwater Science Society holds annual conferences where members (scientists, consultants, policy analysts, technical officers, government officials etc) meet to present latest research, network and collaborate on research.

4. The conference is to be held in Taranaki for the first time.

5. The Council is the major sponsor for the conference and has provided some financial support, officers to participate on the organising conference and other logistic support.

6. Other sponsors have included the Ministry for the Environment, Environment Waikato, NIWA, Cawthron, Taranaki Tree Trust, EOS Ecology, Stark Environmental, Riverlands and the Department of Conservation.

7. The conference will be opened by the Chair of the Council followed by a plenary lecture by the Chief Executive who will give a presentation on the changing scene of water management in New Zealand and the role of science.

8. Other plenary speakers are Guy Salmon speaking on the role of a national water policy for New Zealand, Ian Jowett (recipient of the inaugural Fresh Water Science Medal) on hydroelectricity and the development of instream flow assessment, Dr Russell Death on floods, nutrients and research, and Dr John Stark on the MCI and its origins in his early work in Taranaki.

9. Three days of talks cover a range of interesting topics from water quality to lakes, invertebrates, algae and fish.

10. A number of field trips have been designed to showcase freshwater issues in Taranaki and their management to freshwater scientists and managers from around New Zealand. Trips include: a tour to east and north Taranaki with Peter Mischefski and David Walter, a tour of structures in waterways around the ring plain that have been fitted with fish passes, a practical in-the-field workshop on wetland monitoring that will visit a range of Taranaki wetlands, a workshop on stream habitat assessment protocols that will involve some field work and a tour to Lake Rotokare.

Recommendation

THAT the Taranaki Regional Council:

1. note the upcoming Freshwater Science Conference and the opportunities this will provide to showcase freshwater issues in Taranaki, and their management, to scientists and freshwater managers from around the country.

AD McLay
Director-Resource Management

Approved:

B G Chamberlain
Chief Executive

Updated 17/11/2008

NZ Freshwater Sciences Conference 2008 - Programme

Sunday 23rd November 2008

4.00-6.00	**Registration Open - Hotel Foyer**		**** Student Presentations***

Monday 24th November 2008

8.00-9.00	**Registration Open - Hotel Foyer**		
	OPENING CEREMONY - David McLeod Chairman, Taranaki Regional Council & Tokatumoana Kevin Walden Grand Ballroom		
	Freshwater through the eyes of the future generations: Winners of the Freshwater Movie Challenge. Sponsored by the Taranaki Tree Trust Grand Ballroom		
9.00-9.45	**Housekeeping** Grand Ballroom		
9.45-10.30	**KEYNOTE PRESENTATION: Basil Chamberlain - "The Changing Scene of Water Management in New Zealand and The Role of Science"** Grand Ballroom		
10.30-11.00	***Morning Tea - Brougham Room***		
	Ballroom	**Hobson Room**	**Timandra Room**
11.00-12.30	**Introduced Fish, Chairperson - Bruno David**	**Algae, Chairperson - Susie Wood**	**Topic & Chairperson**
11.00-11.15	* Blair - AN INVESTIGATION OF KOI CARP (CYPRINUS CARPIO) MOVEMENT IN THE WAIKATO REGION USING LASER ABLATION OTOLITH MICROCHEMISTRY.	O'Rorke - IDENTIFYING KEY VARIABLES AFFECTING A MIXED CYANOBACTERIA BLOOM AT LAKE KAINUI.I	
11.15-11.30	* Daniel - SEASONAL MOVEMENT OF NEW ZEALAND KOI CARP (CYPRINUS CARPIO)	Wood - WHOLE LAKE BIOMANIPULATION SHOWS POTENTIAL FOR MANAGEMENT OF CYANOBACTERIAL BLOOMS.	
11.30-11.45	David - USING LOW PH TO REPEL SALMONIDS: FROM THE LAB TO THE FIELD	Cooke -DEVELOPMENT OF DIDYMO-GEMEX DECISION SUPPORT SYSTEM.	
11.45-12.00	Hicks B - THE USE OF OTOLITH MICROCHEMISTRY TO INVESTIGATE NATAL ORIGINS AND MOVEMENT OF WILD LACUSTRINE RAINBOW TROUT.	* Wagenhoff - PERIPHYTON RESPONSES TO MULTIPLE-STRESSOR GRADIENTS: NUTRIENT AND SEDIMENT ADDITION TO EXPERIMENTAL STREAM CHANNELS.	
12.00-12.15	* Kuecholl - ABUNDANCE AND MOVEMENT OF BROWN TROUT (SALMO TRUTTA) IN RELATION TO FOOD SUPPLY AND FLOODS.	* Heath - TOXIC BENTHIC CYANOBACTERIA IN THE HUTT RIVER	
12.15-12.30		Safi - ANTARCTIC POND LIFE DURING THE EXTENDED SEASON: THE PHYTOPLANKTON AND BACTERIAL STORY	
12.30-1.30	***Lunch - Brougham Room - Sponsored by Department of Conservation***		
1.30-3.00	**Fish, Chairperson - Ian Jowett**	**Water Quality, Chairperson - John Leathwick**	**Policy, Chairperson - Neil Deans**
1.30-1.45	Hay - EFFECTS OF NATURAL FLOW VARIATION ON TROUT PRODUCTION, PROGRESS ON A LONG TERM STUDY.	Leathwick - UNRAVELLING NATURAL VARIATION IN MCI SCORES ACROSS NEW ZEALAND.	Deans - CLEAN STREAMS ACCORD REVIEW
1.45-2.00	* Woodford - SOURCES, SINKS AND HABITAT GRADIENTS: PREDICTING TROUT PREDATION EFFECTS ON GALAXIID FISH DISTRIBUTIONS	Katell - ARE NEW ZEALAND MAAR LAKES A GOOD INDICATOR OF PAST CLIMATE CHANGE IN THE MID LATTITUDE SOUTHERN HEMISPHERE	Rush - SUSTAINABLE WATER PROGRAMME OF ACTION
2.00-2.15	Bonnett - ESTIMATING FISH ABUNDANCE FROM DEPLETION METHOD ELECTROFISHING IN NEW ZEALAND STREAMS	Luo - SIMULATING CLIMATE AND LAND USE IMPACTS ON LAKE WATER QUALITY USING A COUPLED CLIMATE-WATERSHED-LAKE ECOSYSTEM MODEL	Hunt - ANZECC WATER QUALITY GUIDELINES REVISION
2.15-2.30	* Jellyman - CAN DISTURBANCE-MEDIATED CHANGES TO PREY ASSEMBLAGES CONTROL FISH COMMUNITY COMPOSITION?	* Bierschenk A - HOW DOES CATCHMENT LAND USE AFFECT ESTUARINE ECOSYSTEMS?	Inglis - STREAM ECOLOGICAL VALUATION – A PRACTITIONER'S PERSPECTIVE
2.30-2.45	* A.Hicks - LAKE HEALTH AND NON-DIADROMOUS RECRUITMENT IS CRUCIAL FOR BRANDED KOKOPU IN THE WAIKATO RIVER SYSTEM	Stansfield - UPPER MOHAKA TARGETED INVESTIGATION STUDY	Drake - PART 1: WAITAKI RIVER DIVERSION FOR IRRIGATION – NUTRIENT SUPPLY AND PRIMARY PRODUCTIVITY IN STREAMS AND THE WAINONO LAGOON
2.45-3.00		Warr - PROTECTING AQUATIC ECOSYSTEMS IN THE WELLINGTON REGION - DEVELOPMENT OF INDICATORS AND STANDARDS FOR THE NEXT REGIONAL FRESHWATER PLAN.	Norton - PART 2. CAN WE LINK SCIENCE AND PLANNING MORE EFFECTIVELY? – A CASE STUDY OF THE CUMULATIVE IMPACTS OF LANDUSE INTENSIFICATION
3.00-3.30	***Afternoon Tea - Brougham Room***		
3.30-5.00	**Native Fish, Chairperson - Gerry Closs**	**Water Quality II, Chairperson - John Quinn**	**Freshwater NPS**
3.30-3.45	Closs - CAN COASTAL RETENTION OF LARVAE ENHANCE THE RECRUITMENT OF AMPHIDROMOUS FISH?	Ausseil - WATER QUALITY STATE AND TRENDS AND CONTAMINANT LOADS ANALYSIS IN THE TUKITUKI CATCHMENT, HAWKE'S BAY.	Deans - WHAT SHOULD A NATIONAL POLICY STATEMENT SAY ABOUT FRESHWATER SCIENCE?
3.45-4.00	* Dunn -MORPHOLOGICAL DIVERSITY IN NON-MIGRATORY GALAXIAS FISHES: THE INFLUENCE OF HABITAT HYDROLOGY	McArthur - THE TRUTH ABOUT LIMITING NUTRIENT STATUS IN THE MANAWATU RIVER	Townsend & Burns - DISCUSSION ON POSSIBLE SUBMISSION FROM THE FSS ON THE FRESHWATER NPS
4.00-4.15	O'Brien - KEEPING AND BREEDING GALAXIIDS IN CAPTIVITY: AN IMPORTANT STEP FOR EXPERIMENTAL RESEARCH INTO BASIC BIOLOGY	Nagels - MONITORING TO DOCUMENT IMPROVING WATER QUALITY IN THE SHERRY RIVER	
4.15-4.30	* Tana - THE MIGRATION HISTORY AND POPULATION DYNAMICS OF TORRENTFISH (CHEIMARRICHTHYS FOSTERI, HAAST 1874), IN TWO SMALL WAIKATO STREAMS ON THE NORTH ISLAND OF NEW ZEALAND	Moore - THE EFFECTS OF URBAN DEVELOPMENT ON AUCKLAND STREAM FAUNAS	
4.30-4.45	Crow - THE EFFECTS OF INTERSPECIFIC COMPETITION AND DIEL CYCLES ON NICHE EXPRESSION IN TWO FRESHWATER FISHES (G. 'SOUTHERN' AND G. GOLLUMOIDES)	Coup - AUCKLAND'S URBAN STREAM ECOLOGY: USING INTEGRATIVE SURVEYING TO IDENTIFY MANAGEMENT OPPORTUNITIES	
4.45-5.00	Kelly D HAS BROWN TROUT INTRODUCTION ALTERED DISEASE PATTERNS IN NATIVE NEW ZEALAND FISH?	Storey - MAPPING AQUA INCOGNITA IN AUCKLAND REGION	
6.00-7.00	**Networking Session - Puke Ariki**		

Tuesday 25th November 2008

8.00-9.00	**Registration Open - Hotel Foyer**		*** Student Presentations**
8.00-9.00	Breakfast Meeting - FSS Executives		
9.00-9.15	Housekeeping - Grand Ballroom		
9.15-10.00	**KEYNOTE PRESENTATION: Guy Salmon - "What Role for a National Water Policy for New Zealand?"** Grand Ballroom		
10.00-10.30	Ian Jowett "Hydroelectricity and Development of Instream Flow Assessment in New Zealand" Grand Ballroom		
10.30-11.00	***Morning Tea - Brougham Room***		
	The Ballroom	**Hobson Room**	**Timandra Room**
11.00-12.30	**Invertebrates & Disturbance, Chairperson - Christop Matthaei**	**Fish, Chairperson - Angus McIntosh**	**Lakes, Chairperson - David Hamilton**
11.00-11.15	* Schwendel - INFLUENCE OF BED STABILITY ON BENTHIC INVERTEBRATE COMMUNITIES IN MOUNTAIN STREAMS	* McEwan - IT'S ALL ABOUT SUBSTRATE: MICROHABITAT REQUIREMENTS OF NATIVE FRESHWATER FISH IN A PRISTINE STREAM.	Schallenberg - FACTORS RELATED TO CLEARWATER-TURBID REGIME SHIFTS IN SHALLOW NEW ZEALAND LAKES.
11.15-11.30	Greenwood - SPIDER SIZE AND SUBSIDIES: RIVER FLOW REGIME CONTROLS SIZE-CLASS STRUCTURE OF FISHING SPIDERS	* Doehring - HAVE YOU SEEN ANY FISH IN NELSON CITY LATELY? - NATIVE FISH DISTRIBUTIONS AND THE EFFECTS OF CULVERTS IN AN URBAN ENVIRONMENT	Gibbs - LAKE RESTORATION USING SEDIMENT CAPPING: THE PROS AND CONS.
11.30-11.45	Greig - TEMPORAL SHIFTS IN BIOTIC INTERACTIONS ACROSS AN ENVIRONMENTAL DISTURBANCE GRADIENT	Lake - WHAT'S IN THE SWAMP? - FISH FAUNA OF THE WHANGAMARINO	* Özkundakci - PHOSPHORUS REDUCTION IN THE WATER COLUMN OF A EUTROPHIC LAKE IN RESPONSE TO INTENSIVE CATCHMENT AND IN-LAKE RESTORATION MEASURES.
11.45-12.00	* Gray - PATTERNS IN BRAIDED RIVER BENTHIC DIVERSITY: ARE ALL BRAIDED RIVERS THE SAME?	Landman - BIOLOGY AND ECOLOGY OF COMMON BULLY IN THE TARAWERA AND RANGITAIKI RIVERS, BAY OF PLENTY	* Trolle - RESTORING WATER QUALITY IN NEW ZEALAND LAKE - MODELLING THE INFLUENCE OF INTERNAL LOADING AND FUTURE CLIMATE CHANGE.
12.00-12.15	Matthaei - HOW DISTURBANCE, PREDATION AND COMPETITION INTERACT IN STREAMS: A FIELD EXPERIMENT	Hickford - OF MICE AND MEN: RESTORATION OF SPAWNING HABITAT OF INANGA, GALAXIAS MACULATUS	Hamilton - RATES OF NITROGEN LOSS VIA DENTRIFICATION ARE RELATED TO LAKE TROPHIC STATUS.
12.15-12.30	* Tonkin - DIVERSITY PATTERNS IN STREAM INVERTEBRATE COMMUNITIES: HOW IMPORTANT IS THE ROLE OF PERIPHYTON IN DETERMINING THESE PATTERNS?		73
12.30-1.30	***Lunch - Brougham Room - Sponsored by Riverlands Eltham***		
1.30-3.30	**Restoration, Chairperson - Ian Boothroyd**	**Invertebrates II, Chairperson - Alastair Suren**	**Restoration of Shallow Lakes - Chairs -John Quinn & Keri Neilson** **Sponsored by Environment Waikato**
1.30-1.45	Boothroyd - RESTORING STREAMS: COLONISATION OF BIOFILM AND MACROINVERTEBRATE COMMUNITIES ON STONE SURFACES IN STREAMS	* Bierschenk B - MYSID ABUNDANCE AND POPULATION STRUCTURE IN A LARGE SOUTH ISLAND ESTUARY	Quinn - THE CHALLENGE OF RESTORING LAKE HAKANOA – A SHALLOW WAIKATO LAKE WITH MULTIPLE STRESSORS
1.45-2.00	* Kitto - INVESTIGATING TECHNIQUES TO ENHANCE BENTHIC COMMUNITIES IN STREAMS REMEDIATED FROM ACID MINE DRAINAGE	Phillips - STORM WATER CONTAMINANT EFFECTS ON THE GENETIC INTEGRITY OF A POPULATION OF THE FRESHWATER CLAM SPHAERIUM NOVAEZELANDIAE	de Winton -RESTORING SUBMERGED PLANTS, FEASIBILITY AND PITFALLS
2.00-2.15	Scholes - METHODS AND MADNESS TOWARDS RESTORATION OF DEGRADED WATERBODIES	Rainforth - KĀKAHI (ECHYRIDELLA MENZIESII) IN THE WHANGANUI RIVER – GOING, GOING, GONE?	Quinn & De Winton Discussion of Shallow Lakes
2.15-2.30	Stansfield - RIVERSIDE FARMS WETLAND AND RIPARIAN RESTORATION 4 YEARS ON	* Neumegen - WORKING THE NETWORK: THE INFLUENCE OF STREAM CONFIGURATION ON BENTHIC COMMUNITIES	
2.30-2.45	Wilcock - RESTORATION OF A TARANAKI DAIRY CATCHMENT STREAM	Suren - CHARACTERISING THE INVERTEBRATE COMMUNITIES OF PRISTINE NEW ZEALAND WETLANDS	
2.45-3.00	* Richardson - A QUANTIFICATION OF CHANNEL PLANTFORM CHANGE ON THE LOWER RANGITIKEI RIVER, NEW ZEALAND, 1949-2007: RESPONSE TO MANAGEMENT?	Landman - MORPHOLOGICAL CHARACTERISATION OF KOURA HAEMOCYTES AND THEIR RESPONSES TO ENVIRONMENTAL STRESSORS	
3.00-3.15	Robertson-INTEGRATING RESEARCH AND MANAGEMENT ACROSS THREE NATIONALLY IMPORTANT WETLANDS: THE ARAWAI KAKARIKI RESTORATION PROGRAMME	Henderson - TESTING THE FRESHWATER BIOGRAPHIC FRAMEWORK	
3.15-3.30	Lewis-ENHANCING ECOSYSTEMS SERVICES IN YOUR STREAM? IT'S THE LITTLE THINGS THAT COUNT!	Duggan - INVASION RISKS FROM INCIDENTAL FAUNA IN THE AQUARIUM TRADE.	
3.30-5.00	**Poster Session - Mix and Mingle**		
	Afternoon Tea/Cash Bar **Brougham Room**		
5.00-8.00	Regional Council Water Interest Group - SWIM Meeting Timandra Room		

Wednesday 26th November 2008			
8.00-9.00	**Registration Open - Hotel Foyer**		
8.30-5.00	**Field Trips & Workshops**		
6.30-Late	**Conference Dinner - Yarrow Stadium "Provincial & Proud"**		

Thursday 27th November 2008

8.00-9.00	**Registration Open - Hotel Foyer**		*** Student Presentations**
9.00-9.15	Housekeeping - Grand Ballroom		
9.15-10.00	Russell Death - "Paddling in Streams - Floods, Nutrients, Science and Resource" Grand Ballroom		
10.00-10.45	John Stark - "The MCI - Where it all began" Grand Ballroom		
10.45-11.15	***Morning Tea*** ***Brougham Room***		
	The Ballroom	**Hobson Room**	**Timandra Room**
11.15-12.30	**Invertebrates and Nutrients, Chairperson - Dean Olsen**	**Fish, Chairperson - Mike Joy**	**Taranaki Steams, Chairperson - Chris Fowles**
11.15-11.30	Arscott - AQUATIC INVERTEBRATES IN A DRYING WORLD: MOBILITY AND DESICCATION AND DISSOLVED OXYGEN TOLERANCE OF 7 COMMON AQUATIC INVERTEBRATES	Joy - INVESTIGATING TEMPORAL AND LANDUSE TRENDS IN THE NEW ZEALAND FRESHWATER FISH DATABASE USING AN INDEX OF BIOTIC INTEGRITY	Fowles - WHERE THE **** AM I? Stream signage!
11.30-11.45	Craig - AQUATIC HABITAT CHARACTERISTICS OF NEW ZEALAND SANDFLY (SIMULIIDAE) LARVAE.	Nicholson - SOMETHING FISHY IN THE MANAWATU-WANGANUI	Archer - SHMAK (STREAM HEALTH MEASUREMENT AND ASSESSMENT KIT) USAGE AT SECONDARY SCHOOL LEVEL IN TARANAKI.
11.45-12.00	Olsen - MODELLING INVERTEBRATE HABITAT: DEVELOPMENT OF AN INVERTEBRATE TIME SERIES MODEL	Surrey - FRESHWATER FISH POPULATIONS IN THE HUNUA WATER-SUPPLY RESERVOIRS, AUCKLAND	
12.00-12.15	McIntosh - NUTRIENT LIMITATION AND DISTURBANCE AS TIPPING POINTS AFFECTING THE STRENGTH OF TOP-DOWN CONTROL OF STREAM ALGAE	Ling - FISH COMMUNITY AND KOURA RESPONSES TO SEMI-CONTINUOUS ALUM DOSING IN THE UTUHINA STREAM, ROTORUA	
12.15-12.30	Townsend - GETTING TO GRIPS WITH MULTIPLE STRESSOR EFFECTS IN STREAMS		
12.30-1.30	***Lunch*** ***Brougham Room***		
12.30-1.45	**NZFSS - AGM** **Blenheim Room**		
1.45-3.00	**Aquatic Plants, Chairperson - Cathy Kilroy**	**Large Rivers, Chairperson - Kevin Collier** **Sponsored by Environment Waikato**	**Paper Writing Workshop - Katrin Berkenbusch**
1.45-2.00	Bloxham - WEED TALK	Collier - SPATIAL VARIATIONS IN MACROINVERTEBRATE COMMUNITY COMPOSITION OF SOME LARGE NEW ZEALAND RIVERS	Katrin Berkenbusch - THIS SEMINAR PROVIDES INFORMATION ON CHOOSING A SCIENTIFIC JOURNAL, WHAT TO LOOK OUT FOR WHEN WRITING, SUBMITTING AND REVIEWING PAPERS AND SOME OF THE COMMON PITFALLS THAT PREVENT PAPERS GETTING PUBLISHED.
2.00-2.15	Kilroy - DIDYMOSPHENIA GEMINATA IN NEW ZEALAND: WHERE IT IS AND WHERE IT ISN'T	B. Hicks - FISH DISTRIBUTION IN LARGE RIVERS - A PERSPECTIVE FROM BOAT ELECTROFISHING	
2.15-2.30	Liess - LIGHT, NUTRIENTS AND GRAZING INTERACT TO DETERMINE DIATOM SPECIES RICHNESS VIA CHANGES TO PRODUCTIVITY, NUTRIENT STATE AND GRAZER ACTIVITY	Young - ECOSYSTEM PROCESSES IN NEW ZEALAND'S LARGE RIVERS	Dickison - TEN WAYS SCIENTISTS CAN PRESENT THEIR DATA BETTER
2.30-2.45	De Winton - FOUR SUBMERGED PEST PLANTS IN NEW ZEALAND LAKES		
2.45-3.15	***Afternoon Tea*** ***Brougham Room***		
3.15-4.15	**Ecological Integrity Workshop - Jo Clapcott**	**Electrofishing Demonstration - Dr Brendan Hicks** **Lake Rotomanu**	**Topic & Chairperson**
3.15-3.30	Schallenberg - ASSESSING THE INTEGRITY OF ECOLOGICAL INTEGRITY		
3.30-3.45	Drake - LAKE ECOLOGICAL INTEGRITY AND LAND USE		
3.45-4.00	Clapcott - FUNCTIONAL INDICATORS OF STREAM ECOSYSTEM INTEGRITY		
4.00-4.15	Kelly- USING FOODWEB METRICS FOR EVALUATING THE ECOLOGICAL INTEGRITY OF LAKES		
5.30	*Conference Closes*		