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The use of policy scenarios for water quality in stakeholder consultation

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The use of policy scenarios for water quality in stakeholder consultation

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Summary and Keywords

The paper describes an innovative approach to stakeholder consultation about agricultural land uses and water quality in rural waterways. In mid-2012 the authors prepared a number of policy scenarios from published regional council planning documents, addressing sediment, nutrients and pathogens. These examples were intended to stimulate stakeholders to consider the attributes that they desired in the regional council interventions to be included in the next regional plan. Stakeholders from a range of agricultural and environmental organisations were invited to attend a one-day workshop. At the workshop they reviewed the proposed policy problem and objective, as well as the policy scenarios. Workshop participants then used post-it® notes to complete a template that described the attributes underlying the policy scenarios. The results were used to describe areas of convergence between the different stakeholder groups and areas where there were differences. These results are now being used in the next phase of the regional plan for the Wellington Region.

Key Words: consultation, freshwater, policy, regional council

Introduction

In a paper presented by Parminter et al. (2003) to NZARES the chairman of Shell International was quoted:

"Scenarios are not prophecies or preferences. They are challenging, coherent, and credible alternative stories about the future, incorporating a spectrum of ideas. They are designed to help us challenge our assumptions, focus on key uncertainties, understand drivers and dynamics, and test our strategies and plans".

The principles of scenario planning were applied in that paper to strategic planning within the dairy industry to address the highly uncertain future it was then facing. In their conclusion, the authors described the methodology as potentially useful for people planning for a future likely to include change and conflict, and expected to be strongly influenced by uncertain and interactive forces. The authors considered that the methodology could be used quite widely for consultation purposes including those being carried out by local authorities as well as industry groups. Building upon the principles expressed in that paper, a similar methodology has recently been

[1] This paper does not represent policies of Greater Wellington Regional Council and should not be used to indicate provisions in the future regional plan

applied by staff at Greater Wellington Regional Council (Greater Wellington) to address a section of the new regional plan.

Since 2010, a review of natural resource management policies has been carried out by Greater Wellington in preparation for a draft regional plan in 2013. The review has a strategy of engagement with regional Territorial Authorities, Treaty partners, stakeholder organisations, and the general public. Reports from earlier years have been published on the Greater Wellington Council's website (GWRC 2011, 2012). Arising from these reports, one of the topics to be addressed in the regional plan was rural land use and the quality of freshwater in streams and rivers. At the stage in which objectives and policies were being formulated, a participatory workshop with stakeholder organisations was organised using scenario planning methodology.

A workshop was identified by the authors as the most appropriate way for participants to collectively contribute their experience and knowledge on the topic for Greater Wellington. A workshop process with a high degree of social interaction between participants would encourage people, sometimes with conflicting values and goals, to express amongst themselves their tacit knowledge, undeclared assumptions and expected ways of behaving (Parminter et al. 2000). A workshop could then enable the people involved to listen and reflect upon the differences and similarities that they may have with other organisations operating within the same domain. These could be recorded on workshop templates prepared by the authors. Identifying participant differences and similarities was considered by the authors to be the first step before seeking to resolve these and build alignments in the development and implementation of natural resource policy (Parminter et al. 2000). The results of this first workshop are reported in this paper.

Methods

The regional workshop was organised in Featherston (South Wairarapa District) in July 2012.

Stakeholder organisations were selected by Greater Wellington staff based upon each organisation's previous level of involvement with the Council's consenting operations and the Council's preparation of the water quality section of the regional policy statement. Three months before the workshop, chief executives and senior managers in stakeholder organisations were contacted and their organisations invited to participate in the consultation. Four weeks before the workshop, individual staff members from those organisations were invited to attend the workshop and background information was supplied to them by email.

The workshop programme itself was designed to collect information from participants about the components of their decision making using a "directed workshop" methodology (GWRC 2011, p21). These are "directed workshops" in the sense that the issue being focussed on has been already established by the convening organisation, in this case Greater Wellington. Participants were invited at the

workshop in small groups to complete a problem-solving template in whatever manner the small groups considered appropriate. Small group facilitators were provided by Greater Wellington.

Each small group had three tasks to complete during the workshop.

- Score the statement of "problem" definition supplied by Greater Wellington for its expected degree of support within a participant's stakeholder organisation and provide ideas about ways that the definition could be improved.
- Develop the attributes for policy interventions to address issues such as effluent application, sediment and pathogen contamination and nutrient losses, that would best address the problem definition.
- Identify ways in which the attributes could be made more practical for the affected parties.

The workshop was provided with six policy scenarios to stimulate thinking on policy attributes:

1. Regionwide controlled activity status requiring consents for disposal of collected effluent (eg from farm dairies, feedpads, piggeries, poultry yards, and stockyards)
2. Greater Wellington support for industry best practice to exclude livestock from waterways
3. Regionwide discretionary activity status to exclude livestock in intensive industries (eg dairy and pigs) from specified streams, spawning areas and significant sites
4. Fertiliser use as a permitted activity with standards, to support Primary Sector Water Partnership targets
5. Nutrient leaching rates set below 80th percentile of industry practice as a permitted activity across the region, the rest as controlled activities (requiring consents)
6. Nutrient leaching rates set at a 10-20% reduction in nutrient leaching rates below recent property history as a controlled activity requiring a consent

The policy scenarios were generated from existing regional plans around New Zealand. Participants were told that these scenarios did not represent a Greater Wellington position on any plan provisions but were designed to represent possible but equally plausible and equally unlikely policy outcomes.

The template for each small group consisted of a matrix with the range of policy scenarios down the left-hand column and list of possible types of attributes across the top providing headings for otherwise empty columns (Figure 1, following page). For each attribute, participants were asked to decide upon the appropriate measures for that attribute and then the desired level of the measures to be applied to each policy option. Post-it® notes were used to record participant's responses. Each participant could act independently of the others in their small group or they could provide joint responses, or both, as they saw fit.

Figure 1: The template design with potential policy attributes.

Variability of the consent conditions	Evidence of compliance	Allocation of waterway loads to landowners	Role of primary industry organisations	Regional variability of loss limits for nitrogen, phosphorus, sediment,&pathogens in streams	Degree of comprehensiveness over different farming sectors	Variability of discharge allowances	Transition period provisions and length of time	Level of Council control over consents
e.g. new farmers, high risk existing farmers, low risk existing farmers, small-blockers	e.g. whole farm plans, nutrient management plans, submission to Council, 3rd party	e.g. none (use best practice), averaging, grandparent, LUC, merit (Council discretion)	e.g. audited Environmental Management Schemes (EMS), audited compliance, accords, guidelines, joint extension	e.g. regional, catchment, zone	e.g. dairy, sheep & beef, pigs, chickens, cropping, horticulture, intensive farming, all farming	e.g. new farmers, high risk existing farmers, low risk existing farmers, small-blockers	e.g. no transition, short period, allocation gradient, long period	e.g. permitted, controlled, discretionary, ...

In the bottom row of the template workshop participants could suggest ways to make implementing the attributes more practical for the affected parties, e.g. rural landowners.

For example, one attribute was "degree of comprehensiveness over different farming sectors". Workshop participants could decide that every policy option should apply to all agricultural sectors including: pastoral livestock, cropping, horticulture and forestry. Alternatively, they might decide that the different policy scenarios should be selectively applied to different agricultural sectors. All of these ideas could be recorded on the post-it notes attached to the template by participants.

Results

Over thirty people attended the workshop from iwi authorities, non-governmental organisations (NGOs) for the environment, farmer organisations, governmental agencies, agricultural processors and industry-good organisations.

The scoring of the problem statement and objective were wide ranging (Figure 3). There was a general level of support from some organisations at the workshop but also polarised disagreement. The average score was 3 but this score actually represents a minority of the participants.

Figure 2. Policy problem statement and objective

Problem Statement: agricultural land use is contributing to the impaired health of our region's freshwater systems Objective: to ensure that agricultural activities support the region's objectives for the health of freshwater systems

Participants who disagreed with the problem definition provided responses such as:

Science does not indicate that agriculture is the only source

Agriculture is not the only contributor

Need more evidence

Other uses for water than to support fish

Change "agricultural land use" to "human activities"

Or:

Not strong enough …

[Objective] needs quantifying …

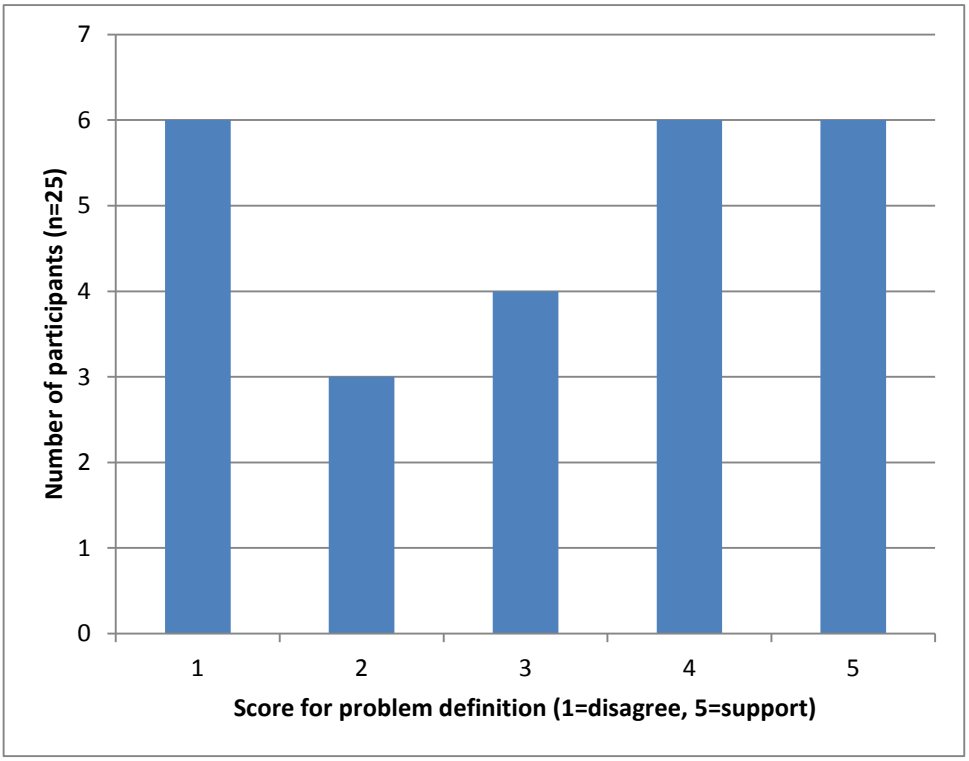
Some organisations supporting the problem definition in principle, still considered that it could be improved:

> *Problem statement is too generic or broad*
>
> *Is it "land use" or "land management"?*
>
> *Impaired health in some areas [of the region, not all]*
>
> *Integrating agriculture and water systems is a must, e.g. wetlands as nutrient sinks*

Organisations supporting the problem definition emphasised its relevance to them:

> *Agriculture is a major contributor to the region's degraded freshwater system*
>
> *Problem statement [is] right …*
>
> *Whatever the wording does not obviate the need for agricultural management procedures to improve*

Figure 3: Scores for the expected level of organisational support for the policy definition



Once the participants reviewed the policy problem and objective they moved on to consider the policy attributes based upon the six policy scenarios that had been provided. In Table 1 the authors have summarised the results in order of their likely relevance to the workshop participants. This was done after the workshop by reviewing all the material gathered at the workshop. The role of primary industry organisations had the most ideas gathered (29) and this indicated to the authors that this was the topic most relevant to workshop participants. In the Table the least ideas were gathered about how Greater Wellington might obtain evidence of compliance.

Participants provided their ideas on the policy approaches that best suited each attribute. Sometimes the ideas expressed by participants were similar and sometimes they conflicted with each other. In the summary provided in Table 1, the columns that are labelled Condition1 and Condition3 identify what the authors consider to be the most divergent policy approaches amongst those contributed by participants. In many cases they are mutually exclusive. Condition1 and Condition3 can be considered as two contrasting poles in a continuum and the column labelled Moderate Condition is considered by the authors to lie somewhere in-between these two extremes. For example, when it comes to the role of primary industry organisations, some stakeholders wanted primary industries to take the lead with Greater Wellington in support and other organisations wanted Greater Wellington to take the lead while industry organisations remained in support. Quite clearly these conditions cannot be applied to the same topics in the regional plan simultaneously. Equally divergent alternatives exist for the attributes of regional variability, consent condition variability and discharge allowance variability.

The greatest degree of consensus was for the degree of control to be exercised by Greater Wellington over rural land use activities. Many participants considered that all land use activities affecting water quality should be controlled activities requiring consents and that discharges directly to water should be non-complying activities. There was a degree of support for the use by Greater Wellington of self-reporting as a way of monitoring land use practices and encouraging greater landowner responsibility. However, workshop participants varied considerably in the amount of auditing they required to oversee self-reporting.

The practicality improvements row in Table 1 was used by participants to describe non-regulatory approaches and also to reinforce participants' "bottom lines". Potential non-regulatory approaches included the provision of financial incentives and rewards, and increased monitoring, science and systems research. Reinforcement of some participants' rejection of the use of land inventory classes and other participants' rejection of grandparenting were included under this heading.

Table 1. A summary of workshop results about the attributes of policy approaches to address rural land uses affecting water quality in the regions freshwater systems

Attribute	**Number of ideas**	**Condition1**	**Moderate condition**	**Condition3**	***Practicality improvements***
Role of primary industry organisations	29	Regional council take the lead, industry work with individual landowners	Industry ensure failing landowners comply with consent conditions	Industry take the lead with regional council support in setting goals and targets	*Organic certification as evidence of compliance*
Regional variability of loss limits for nitrogen, phosphorous, sediment and pathogens in streams	26	Consistent across the region	Consistent approach allowing for between farm variation	Consistent across each catchment	*Some practices should be region-wide e.g. riparian fencing and planting* *More intensive catchment monitoring*
Level of Council control over consents	26	Non-complying for any discharges direct to water	Controlled	Controlled	*More rigorous enforcement by GWRC* *Provide for "bundling" of consents* *Utilise good science* *Look for win-wins for landowners, waterways and communities*

Attribute	**Number of ideas**	**Condition1**	**Moderate condition**	**Condition3**	***Practicality improvements***
Allocation of waterway loads to landowners	25	Farm plans to reduce the risk of nutrient losses over time	Holistic using nutrient limits	Use of best practices rather than nutrient load limits	*Not LUC* *Not grandparenting* *Reduce stocking rates and increase product quality*
Degree of comprehensiveness over different farming sectors	24	All farming sectors	Intensive livestock and horticulture treated differently from extensive sectors	Consistent principles but variable conditions for different sectors	*More farming systems research and extension by GWRC* *Reward landowners making practice improvements*
Variability of the consent conditions	23	The same conditions apply to all land uses	Vary conditions with degree of threat associated with different land uses	Grandfather existing users for 2 years and make new users immediate	*Financial incentives* *Extend transition periods*
Variability of discharge allowances	23	No variability	Vary with environmental risk	Vary with degree and cost of changes required	*Allow for continued development of sectors* *Vary with catchments* *Use LUC*

Attribute	**Number of ideas**	**Condition1**	**Moderate condition**	**Condition3**	***Practicality improvements***
Transition period provisions and length of time	21	No transition	Wait until new consents are required	3-5 years	*Take into account the economic and social costs of change* *Based upon case-law* *Introduce nutrient trading* *Be reasonable*
Evidence of compliance	20	Land use management plans aligned to catchment plans, audited by Regional Council every 5 years	Audited self management	Self monitoring	*Require consents for all threats to waterways*

Discussion

The workshop results have highlighted the degree of inconsistency in expectations between the stakeholder organisations with which Greater Wellington is consulting. However, there is enough common ground to indicate that Greater Wellington should continue working with these organisations to address the areas of greatest divergence and attempt to find practical resolutions.

The dichotomous responses to the policy problem definition are likely to indicate that stakeholder organisations will have conflicts with future development of policies to address this topic. If the problem definition remains the same, greater polarisation between these groups can be expected over time. Reconciling and resolving the views about the policy problem will require Greater Wellington to provide stakeholder organisations greater access to the underpinning science and policy evidence. Stakeholders will need to receive this in an environment where they can discuss the implications further for themselves and other stakeholder organisations.

The differences between stakeholder organisations continued when they considered the attributes of the desired policy interventions. Largely these differences seemed to reflect differences in the expected roles of Council and industry organisations. Some participants did not consider that industry organisations could be relied upon to achieve environmental targets or to enforce environmental standards upon their producers. These participants wanted the regional council to take the lead in setting limits and enforcing the implementation of best management practices by landowners.

Other workshop participants did not trust the regional council to act in the best interests of rural communities and the regional economy whilst also exercising its responsibility to protect water quality in regional waterways. These people had greater confidence that industry groups could work with landowners to stay within water quality limits. For these people, the regional council had largely a supportive role.

To address the differences in policy attributes the regional council will need to consider more than the way that the rules are written. It will also need to consider how its staff will work with iwi, landowners and strengthen industry and environmental NGO relationships to implement the policies and rules. Clarifying the expected roles and responsibilities of the regional council and stakeholder organisations in relation to the achievement of water quality objectives will assist in resolving some of the differences in the content of the regional plan. Greater Wellington is intending to develop these principles in the next stages of its policy development.

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