

Briefing for Ruamāhanga Whaitua Committee

16 May 2016

Assessing social values and how they are affected by policy scenarios

Background

Greater Wellington Regional Council (GWRC) has initiated a community led collaborative planning process to address a number of land and water management issues and to carry out its obligations under the National Policy Statement for Freshwater Management. This process is catchment based, with the region divided into five whaitua or catchments. Whaitua committees will make recommendations to the Council through a Whaitua Implementation Programme (WIP) report. These committees are a partnership between the Regional Council, iwi, territorial authorities and the community. The WIP will contain strategies and actions, forming a programme of work in the catchment area of the Whaitua committee. These will include recommendations for both statutory and non-statutory actions and methods. Proposed regulatory provisions in the WIP will be incorporated into the Regional Plan through a plan change process. Non-regulatory programmes will also be developed and implemented in conjunction with partners.

Collaborative modelling is a fundamental step GWRC is taking to support the Whaitua Committees and their communities in setting freshwater objectives and limits and developing their WIP. A strategic social impact assessment (SIA) is proposed as part of the modelling and related policy development and assessment. For the SIA the Ruamahanga Whaitua Committee (RWC) is the client and will provide the questions and potential management scenarios that will be modelled. The studies that form the SIA will contribute to the testing and modelling of scenarios and provide information to assist the Whaitua Committee to make informed policy decisions. The SIA will be one part of the collaborative modelling alongside inputs from bio-physical and economic assessment and mātauranga Māori.

A small group of social scientists (Jim Sinner, Nick Taylor, and Margaret Kilvington) met with Natasha Tomic (GW), John Bright (Ruamahanga lead modeller) and Ra Smith (RWC) to scope possible projects for assessing social values in the Ruamahanga and how these values would be affected under different policy scenarios.

Four interrelated projects were identified that could form the first stage of the SIA:

1. Baseline information – this has several sub-components as outlined below (pages 2 – 4)
2. Understanding the process of change (to inform policy design and implementation plans) (pages 5 – 6)
3. Developing a vision for the Ruamahanga
4. Assessing change in people's connection to water (pages 7 – 9)

Project 1: Baseline information (prepared by Nick Taylor)

Objective of project 1

To describe the social baseline, conditions and trends for social parameters that can be affected by land and water use in the catchment, in order to inform the social impact assessment (SIA), including projects 2-4, subsequent scenario analysis and later policy evaluation.

Approach to project 1

It is proposed to undertake the baseline assessment in three phases. All three phases are outlined here but at this point only the first phase (scoping) is being commissioned:

- 1) Scoping the baseline – this phase will initiate the social profile. A timeline and budget estimate should be provided for this phase. Key tasks of scoping will include investigating and confirming the parameters of the profile, outlining the variables (indicators) to be used for each parameter and identifying the sources of data to be used and any limitations in obtaining suitable data. Wherever possible secondary data should be used and relevant data should be able to be mapped at either the area unit or meshblock level. It is expected that meshblock data will be necessary in order to understand the social profile of particular sub catchments. A combination of quantitative data and qualitative (descriptive) data is expected. Possible sources are indicated in the list of proposed parameters below. It is expected that data should be able to be presented in temporal and spatial form as tables and/or maps for key variables. The baseline should include how values and social conditions change over time.

The scoping will confirm the areas to be investigated across the three districts and particular sub-catchments. It will also identify likely data gaps and necessary collection of primary data during the second phase of work. A scoping report to the Council and whaitua committee should include the results of the scoping and a detailed work plan and budget for phases 2 and 3.

- 2) Developing the baseline – will require the collection of data necessary to develop the detailed social baseline. The baseline will include, at least, the parameters listed below and reflect the full range of social values in the catchment. The report at this stage will be a draft.
- 3) Updating the baseline as the SIA proceeds – will require updating of information that becomes available during the later (assessment) stages of the SIA, with reporting the final baseline as part of the final SIA report.

This general approach recognises the importance of iterations between the four SIA projects, as well as the economic assessment, the cultural assessment and the bio-physical assessments. Ongoing iteration is expected between the SIA work streams and the development of scenarios, and early policy work by the Committee and GWC. Early iterations are expected during the scoping phase during which it is expected that sub catchment, land-use and other maps (such as drinking water wells) and relevant bio-physical and economic data will be made available to the researchers as required.

Proposed parameters

The following list is indicative at this early point in project 1 and it is expected that the researchers will develop the parameters further during the scoping phase, with justifications for each parameter, and discuss the final list of parameters, and any necessary original (primary) research required to fill information gaps, with the Whaitua committee and Council staff.

- Population and settlement – social/ geography of the catchment utilising sources such as the census. This will include demographic characteristic and trends. Indicators will include total population, population change, age, ethnicity, born overseas, length of residence, household size, income and social deprivation.
- Employment and livelihoods related to land use and water – to provide a picture of employment by sector emphasising the primary production, rural processing and rural service sectors using sources such as the census, labour market surveys, agricultural statistics, business statistics and sector surveys and studies. Indicators will include employment and sources of income by industry group and occupation, employment status, and types and size of firms.
- Visitors and tourism – a description of the visitor sector (domestic and international) and their links to water resources. Sources will include official visitor statistics and surveys, visitor centre data and operator data. Indicators will include visitor numbers (including seasonally and by area and type of activity), bed nights, and types of products and businesses.
- Social services in the community – a description of social infrastructure and services including gaps in services and any particular social needs. Sources will include agency data, and relevant council and other reports. Indicators will include housing by type, schools and school rolls, tertiary training, health and emergency services, new settler and migrant services, numbers on benefits, and iwi services.
- Physical infrastructure - particularly a description of drinking water supplies and wastewater disposal. Sources will include councils, public health organisations and relevant reports and maps. Indicators will include incidences of drinking water restrictions and warnings and public health events.
- Outdoor recreation with a particular focus on the values of rivers, lakes and wetlands. Sources will include surveys and reports such as the national angling surveys, Fish and Game data, guiding services, Department of Conservation data and council/public health data and public warning or restrictions due to water quality standards. Indicators will include numbers and types of activity, locations of activity and quality of the recreational experience. Analysis of expenditure on recreation will be coordinated with the economic assessment.
- Mahinga kai and cultural values – description to be coordinated with the cultural assessment work.
- Character of community and social capital - a description of community cohesion, community organisations and groups particularly with interests in land uses and water resources, and the natural environment. Sources will include councils, community directories, relevant agencies and community development organisations and any available surveys. Indicators will include leadership, business networks, volunteerism, assimilation of newcomers, and rural character.

- Rural urban connections/disconnections – Sources will include media reports, public submissions (eg on council plans), any available public opinion research or surveys. Indicators will include rural amenity (lifestyle) land uses and consents, and instances of public debates or disputes over water, water use and rural land uses.
- Flow of economic benefits in and out of the catchment - to be coordinated with the economic assessment. Sources will include expenditure surveys, sector studies and surveys, inter-sectoral studies, and business statistics. Indicators will include expenditure by location, business size and types by location and GDP by sector.

A timeline would be 6 weeks for the first phase, the second phase could require at least 12 weeks and the rest would depend on the overall time table.

A budget estimate is \$15-18,000 for the scoping.

Allow up to \$60,000 to fully develop the baseline with provision to gather extra data if necessary but I expect with the other projects it should all work together and there wouldn't be too many gaps!

Project 2 - Understanding change (prepared by Margaret Kilvington)

Context:

The Ruamāhanga Whaitua Committee (RWC) was established to bring forward the unique values and views of the Ruamāhanga catchment community for inclusion in a Whaitua implementation plan (WIP). This will be ultimately merged into the Greater Wellington Regional Council Natural Resources Plan. An important part of this mahi is to make recommendations for policies (both regulatory and non-regulatory) that will support the achievement of goals and targets (such as limits on water abstraction, river levels, and water quality). Inevitably meeting these goals and targets will involve some changes of practice for different sectors of the Ruamāhanga catchment community. Designing realistic goals and targets and successful policies to achieve them consequently relies on some understanding of how much change is required and how the costs and benefits of change are likely to be distributed. It also requires some understanding of how likely it is that different policies and approaches will achieve the desired shifts in practice and behaviour and what else may be needed to support that change. Ensuring adequate consideration has been given to the processes of change proposed by the WIP is a requirement of Section 32 of the RMA-1991¹

How much change is required, and the costs and benefits of change, can be estimated using base-line data and social impact assessment (see Project 1) and by the systems modelling already being undertaken. This proposal (Project 2) is designed to support the RWC's ability to assess the viability of different policies and approaches to promote change and consider how these can be tailored to recognise the unique circumstances of their community.

Project 2 will address three questions:

1. how behaviour change (particularly in catchment management) can be motivated and promoted;
2. how different policy regimes (regulatory and non-regulatory) can influence behaviour change
3. how the Whaitua committee can include a consideration of the processes of change in their choice of appropriate policies for incorporation in the WIP (including implications for Council practice in implementing these policies).

Project 2 will have two outputs:

1. A report (15-20 pages) that will (i) summarize current understanding of key aspects of behaviour change (influences, opportunities and limitations) and how communities are responding to commonly applied water management policy initiatives. (ii) review methods for developing policy options that are appropriate to the Ruamāhanga catchment community context (e.g.

¹ "Section 32 (s32) of the Resource Management Act 1991 (RMA) is integral to ensuring transparent, robust decision-making on RMA plans and policy statements (proposals). The section requires that: • new proposals must be examined for their appropriateness in achieving the purpose of the RMA • the benefits and costs, and risks of new policies and rules on the community, the economy and the environment need to be clearly identified and assessed • the analysis must be documented, so stakeholders and decision-makers can understand the rationale for policy choices." MFE guidelines on Section 32 – published December 2014.

policy choice methodology, and Implementation logic). This will include: resource links and contacts.

2. A Workshop with the RWC to review the material and its relevance to the Ruamāhanga catchment; identify important next steps and further knowledge gaps. This workshop will evaluate how the RWC can best use this material to determine key criteria for effective, contextually responsive policy options.

Process will include:

Review of literature & recent practice; select interviews with community development staff at GWRC and staff and participants of comparable collaborative catchment management initiatives in New Zealand.

Project 2 will link with other ongoing work related to the RWC and production of the WIP. Specifically Project 2 will directly inform the scenario assessment work (Project 3). It will also enable the RWC to review what is known about capacity for change in the Ruamāhanga Catchment and what is unknown and significant enough to require further investigation (e.g. through the social impact assessment –Project 1).

Time and budget

Report – 3-4 weeks work: Workshop -2-4 hours plus prep (2-3 days).

Estimated budget: 15- 20k exclusive of GST

Project 3: Enhancing the vision (prepared by Will Allen)

Rationale and objective

The Ruamāhanga Whaitua Committee (RWC) has developed a number of outputs on the way to developing recommendations in a Whaitua Implementation Plan (WIP). These outputs include a “Vision and Outcomes” document and a final list of “Ruamāhanga Whaitua Values”. Work is underway to complete a draft “List of Attributes” for each value group.

Building on these outputs, this project would help the RWC to flesh-out the vision by developing assessment scales for each attribute. We would then work with the RWC to use scenarios to assess how well the alternative pathways achieve the desired outcomes and overall vision of the RWC. This involves a performance framework, or rubric to help develop, evaluate and prioritise scenarios.

Proposed approach and outputs

1. Developing assessment scales for attributes

A rubric is an easily applicable form of assessment. They are commonly used in education, and offer a process for defining and describing the important components of an activity being assessed. Increasingly rubrics are being used to help develop assessments in other areas such as community development, natural resource management, and integrative science. They can be developed to use either quantitative or qualitative measures – depending on the attribute under consideration. This means that they can be used to help assess social and cultural attributes.

Although the format of a rubric can vary, they all have two key components:

- A list of criteria – or what counts (in the case of the RWC, these are attributes)
- Graduations of quality – to provide an evaluative range or scale.

Developing rubrics helps clarify the expectations that people have for different aspects of attribute performance by providing detailed descriptions of collectively agreed upon expectations. Well-designed rubrics go further than a simple checklist since they also describe the gradations of quality (levels) for each of the attributes to be evaluated. It is important to involve program participants in developing rubrics and helping define and agree on the attributes and gradations of quality. This broad involvement increases the likelihood that different evaluation efforts can provide comparable ratings. As a result, the assessments based on these rubrics will be more effective and efficient.

Developing rubrics for attributes will require three key steps.

1. Defining the attribute to be rated. This can include consideration of both outputs (things completed) and processes (level of participation, required behaviours, etc.). This step will help the committee check whether each of the draft attributes is fit for purpose, and is not duplicating another attribute.
2. Defining dimensions to be assessed using the rubric. These should represent any component elements that contribute to the outcome defined by the attribute.
3. Developing assessment scales which describe how well any given attribute is performing. This usually involves selecting and agreeing on 3-5 levels or scales that can be quantitative or

qualitative (e.g. from “emerging” to “well performing” or “poor” to “very good” depending on the attribute).

2. Developing and prioritising scenarios

In this context, scenarios are narratives of alternative pathways to achieving the desired outcomes agreed by the Whaitua committee. They are not predictions, but rather act as plausible descriptions of what could happen. They are stories built around carefully constructed plots, based on drivers, events and ‘trends’. They assist in the selection of future strategies by revealing uncertainties, what’s feasible or infeasible, and opening up the opportunity for lateral thinking and collective decision making. In this way they are a key part of the planning and decision making process.

Developing and prioritising scenarios will involve:

- Identifying key driving forces (risks and opportunities) – social, technological, economic, environmental and political
- Distinguishing pre-determined elements, e.g. an aging population or increasing demand for higher quality water, from uncertainties e.g. migration to/from the Wairarapa or climate variability
- Identifying key linkages between drivers
- Developing a broad range of scenarios and the logic for identifying the key scenarios from within this set. The Bayesian Belief Network currently under development could be used for filtering out the key scenarios.
- Developing narratives to describe the key scenarios.
- Translating the narratives into the inputs and parameters required to use the modelling system to evaluate each key scenario in detail.

This process could be worked through with kaitiaki and key stakeholders (independently), as well as with the Whaitua Committee.

We note that these scenarios can then be presented to the wider community. This can provide a way of supporting learning and getting feedback from different groups in the catchment.

Budget

The two methodologies outlined here have been developed and explored through the concurrent Wheel of Water research programme. These methodologies can be provided to the RWC through the current facilitation and project team, with ongoing support from the Wheel of Water research team. It is not expected that there will be any additional budget required to do this with the RWC. It is estimated that additional costs of \$2,500 per group would be required to run this process with kaitiaki and/or key stakeholders.

Project 4: Assessing people’s connection to water (prepared by Jim Sinner)

Rationale and objective

The Values and preliminary Attributes being considered by the RWC include several references to people’s connection to water, e.g. *“Wai ora – Water for our health; spirit, mind and body”* and *“To tatou awa – we are shaped by the natural character of our waterways”*.

This project would develop a method to assess how policies are likely to affect people’s connection to water, to inform the Committee’s consideration of alternative policy scenarios

Proposed approach and outputs

Theory and practice for identifying and measuring values is a work in progress, and many challenges remain. In particular, how people respond to questions about their values depends on framing: how the question is asked, who is asking, and how the information will be used, as well as external factors (e.g. stories in mass media or social media). Categories of values also pose challenges. “Connection to water” (sometimes called “sense of place”) might overlap with recreation values, cultural values and even economic values. All of these factors need to be considered in designing a study and interpreting its results.

We would work with the RWC to develop a method to assess people’s connection to water as follows:

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| 1. Discussion with RWC or a working group to (a) clarify what the RWC wants to include within “people’s connection to water” and (b) develop a strategy for interviewing and surveying members of the community. | June
2016 |
| 2. Interview 5-10 people to collect narratives and pilot test a workshop/survey protocol | July |
| 3. Conduct 3-4 workshops at which people talk about their connections to water and complete a survey. Aim for about 50 people, but can maybe accommodate more. | Sept |
| 4. Analyse narrative data to identify key themes and use statistical analysis of survey data to estimate relationship between connection to water and key water attributes (e.g. water clarity, aquatic life, riparian vegetation, water flow and/or level). | Oct-Nov |
| 5. Produce and present to RWC a report summarising the method and its use in scenario testing. | Late Nov |

A similar approach is being used and further developed in the Resilient Urban Futures research programme. The approach used here would be different, however, and would need to be based on discussions with the RWC about what values to focus on and who to recruit for the study.

This approach would produce an indicator of the quality of people’s connection to water, which could be estimated for a given water body (or portion thereof) based on estimated biophysical attributes (which would need to be estimated using other techniques). The data would guide whether this is reported as one overall indicator for all waterways and to represent everyone, or as separate indicators for key places and possibly for different groups within the population.

Such an indicator would provide one component for performance evaluation frameworks such as the Wheel of Water, for assessing alternative policy scenarios for their effects on values.

In the absence of such an indicator, the members of the RWC could judge for themselves how people's connection to water is likely to be affected by different policy scenarios and their associated biophysical outcomes.

Indicative budget

While the approach outlined here has not been costed in detail, an indicative cost is \$50k-80k. This could vary considerably depending on the method used to recruit and survey participants. If the surveys and quantitative analysis were completely omitted, we could probably produce a report describing people's narratives (stories) about their connection to water for around \$20k-\$30k, including identifying key features that affect connection to water. Again, this would depend on how many people were interviewed and/or surveyed and the depth of each contact.