



## Creating Futures

### Regional Policy Development Processes – Opportunities for use of Creating Futures tools



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**Information**

Information about the 'Choosing Regional Futures' project (Foundation of Research, Science & Technology Project ENVW0601) is available on the Internet, including an electronic copy of this report: <http://www.creatingfutures.org.nz/>

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# Executive summary

The Creating Futures (CF) research project is focused on developing decision support and process management tools for use in policy development. These tools are aimed at providing information to support decision making process and outcomes through more informed consultation, evaluation of future strategies and trade-off choices.

This report outlines the current policy and planning processes utilised by local government, with a specific emphasis on Environment Waikato. These include those policy processes directed by legislation (e.g. Local Government Act 2002, Resource Management Act 1991), as well as non-statutory plans or strategies.

This report identifies a range of initial opportunities within Environment Waikato's planning and policy development processes to utilise the Creating Futures tools. These opportunities fall primarily into three key areas:

- Issue identification
- Consultation
- Evaluation of policy options

How the tools could be used will depend on the policy process; the other tools being used and timing and resourcing available. The CF tools potentially offer an improved method of issue identification, policy selection and evaluation which involve a robust process of deliberation around the consequences and trade-offs of different policy options. Consequently the use of these tools may require Environment Waikato staff to work in a way that is different from their current 'planning paradigm'.

To get effective uptake of these tools will require support from key staff within Environment Waikato to embrace these tools as part of their policy projects. This will not be straight forward as there are a number of barrier which could affect uptake which were identified during discussions with Environment Waikato staff.

Further work is required to develop the potential opportunities and to develop an implementation plan that focuses on addressing the identified barriers and developing internal support for use of these tools.

A number of recommendations are provided which aim to improve the uptake of the CF tools and the effectiveness of policy development processes at Environment Waikato.



# 1 Introduction

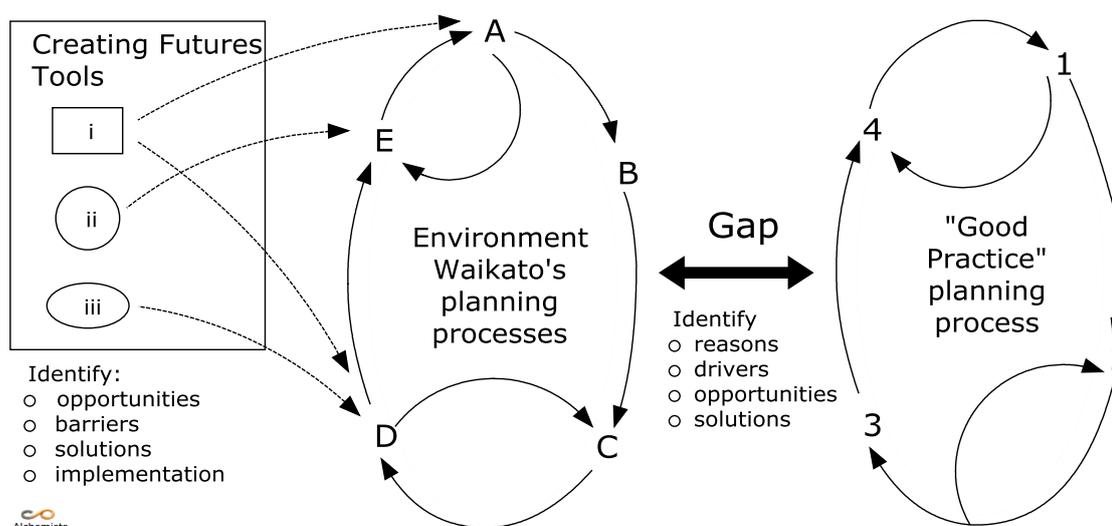
Creating Futures (CF) is a four year Foundation for Research Science and Technology (FRST) funded research project that is developing decision support and process tools for use in policy development. These tools are aimed at providing information to support decision making process and outcomes through more informed consultation, evaluation of future strategies and trade-off choices.

The purpose of this report is to identify initial opportunities for local government and particularly within Environment Waikato's planning and policy development processes to utilise the Creating Futures tools.

This report outlines the current policy and planning processes utilised by local government, with specific emphasis on Environment Waikato. It describes the defined 'good practice' processes for planning under the Local Government Act 2002 (Long Term Council Community Plans), Resource Management Act 1991 (Regional Policy Statement, Regional Plan, Coastal Plan and District Plan), Land Transport Management Act 2003 (Regional Land Transport Strategy) and the planning processes used for non-statutory plans.

Figure 1 outlines the evaluation process used in the development of this report. The planning processes at Environment Waikato are investigated and opportunities for using the CF tools identified. Interviews were undertaken with a range of Environment Waikato staff to determine how policy planning is currently being undertaken within council. This has allowed several outcomes to be identified:

- The current tools being used in planning and how they are used,
- What information is used and how staff/council and stakeholders are being engaged in decision making processes
- The opportunities in the policy development processes for using the Creating Futures tools
- Identification of any potential barriers to uptake of these opportunities and any possible solutions to overcome these barriers
- The extent and type of gap between defined 'good practice'<sup>1</sup> and current practices, and reasons for its existence



**Figure 1: Evaluation process for report development**

<sup>1</sup> Good Practice is defined here as providing the most effective and enduring outcome for both the community and the organisation.

## 2 Creating Futures Tools

The CF project<sup>2</sup> has developed three separate tools which can be used to support policy development processes. These tools can be used either separately for specific parts of the policy processes or combined into a more integrated approach. These tools are described briefly below.

### Tool 1: WISE – An Integrated Spatial Decision Support System

An integrated spatial decision support system (ISDSS) is a type of spatial modelling which is designed to help examine weakly-structured or unstructured problems. Whereas structured problems are tractable and understandable and often have a single, optimal solution, weakly or unstructured problems are characterised by high levels of uncertainty, potential conflicts, or both characteristics. Many complex issues facing society today lack a single, objective solution and therefore qualify as weakly structured or unstructured problems. An integrated spatial model helps users explore alternative futures by combining knowledge, data, and models in a flexible and easy-to-use manner. A good ISDSS will support different decision making styles and adapt over time to the needs of the particular user through interactive and iterative processes.

An ISDSS has been developed as part of the CF project. This ISDSS has been designed and built specifically for the Waikato Region – hence its name Waikato Integrated Scenarios Explorer (WISE).

Tools, such as WISE, that incorporate information from different disciplines can greatly assist policy development of today's complex and interconnected issues and result in more informed decision-making. The aim of WISE is to: (1) inform strategic planning; (2) communicate and inform stakeholders and community; (3) identify links between the economy, the environment and society, expose trade-offs and enable win-win situations; and (4) enhance local government capability and capacity.

WISE consists of a spatially explicit systems model operating at four scales: global, regional, district and local (200 m grid cells). The temporal resolution is one year and its horizon is set at 2050. In the development of WISE there has been a strong emphasis on the linkage and feedback loops between the different components (e.g., climate, hydrology, water quality, economics, population, land use and biodiversity) rather than on modelling all elements to the highest detail possible.

For more information see: [www.creatingfutures.org.nz/spatial-waikato-model-2/](http://www.creatingfutures.org.nz/spatial-waikato-model-2/); Rutledge, et. al., (2007); Rutledge, et. al., (2008); Huser, et. al., (2009).

### Tool 2: Waikato Scenarios

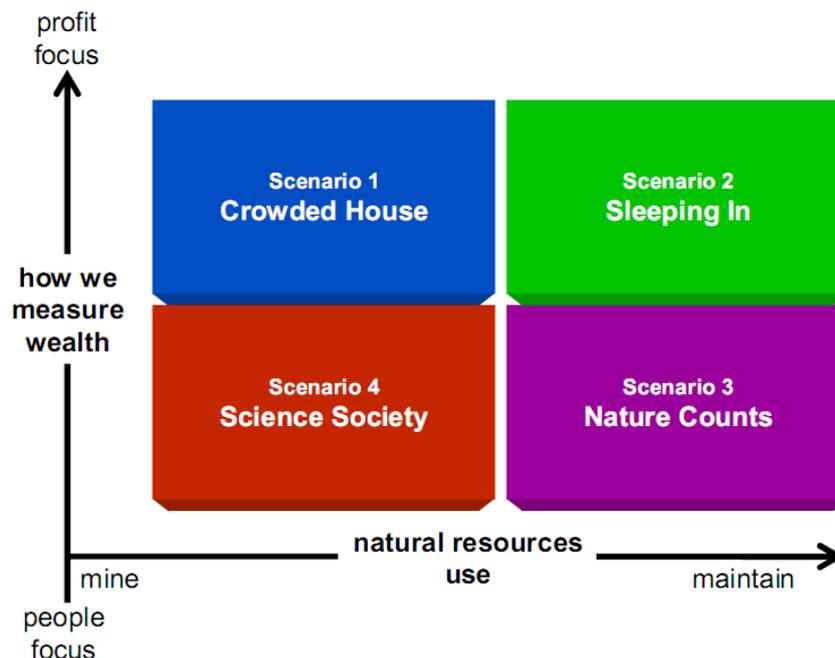
Scenarios are plausible stories about how the future may unfold. Scenarios are neither predictions nor models. Scenarios ask 'what if' the future happens in significantly different ways from how we believe it will develop. Scenarios allow us to analyse changes in direction, shifts in the environment, take new perspectives and develop insights, and, then, use this learning as a catalyst for action.

Four Scenarios have been developed for the Waikato Region. The Waikato scenarios explore some of the deepest dilemmas of our times: profit versus people; growth

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<sup>2</sup> See [www.creatingfutures.org.nz](http://www.creatingfutures.org.nz) for project details.

versus the environment; global versus local; and rich versus poor. How these dilemmas are resolved might affect our ability to improve economic, social, cultural and environmental well-being and to achieve our community outcomes. These scenarios have been developed in four quadrants represented by how natural capital is managed and wealth is measured (Figure 2).



**Figure 2: Quadrants of the four Waikato Scenarios<sup>3</sup>**

For more information see: [www.creatingfutures.org.nz/waikato-scenarios/](http://www.creatingfutures.org.nz/waikato-scenarios/); Delany and Huser (2007).

## Tool 3: Deliberation Matrix

The Deliberation Matrix is a community process tool that allows for stakeholder groups to evaluate the outcomes of policy decision and deliberate the suitability of these outcomes from their perspective.

The deliberation process consists of six steps:

1. Identify the issue;
2. Organise the issue into a matrix (Deliberation Matrix) that has the strategies for evaluation against the 'z' axis, stakeholders on the 'y' axis and performance criteria along the 'x' axis;
3. Identify and mobilise tools that can represent and populate the performance criteria;
4. Deliberate the consequences of the current system and any proposed strategy with regard to the identified stakeholders and the performance criteria;
5. Report on insights and recommendations; and
6. Return to step one.

For more information see: [www.creatingfutures.org.nz/deliberation-tools/](http://www.creatingfutures.org.nz/deliberation-tools/); Wedderburn, et., al. (2008a); Wedderburn, et., al. (2008b); Wedderburn, et., al. (2009)

<sup>3</sup> The four Waikato scenarios were developed and given names to represent each of the four quadrants created by the axis of wealth definition ('profit focus' vs 'people focus') and use of natural resources ('mine' vs 'maintain')

# 3 Policy Development Processes

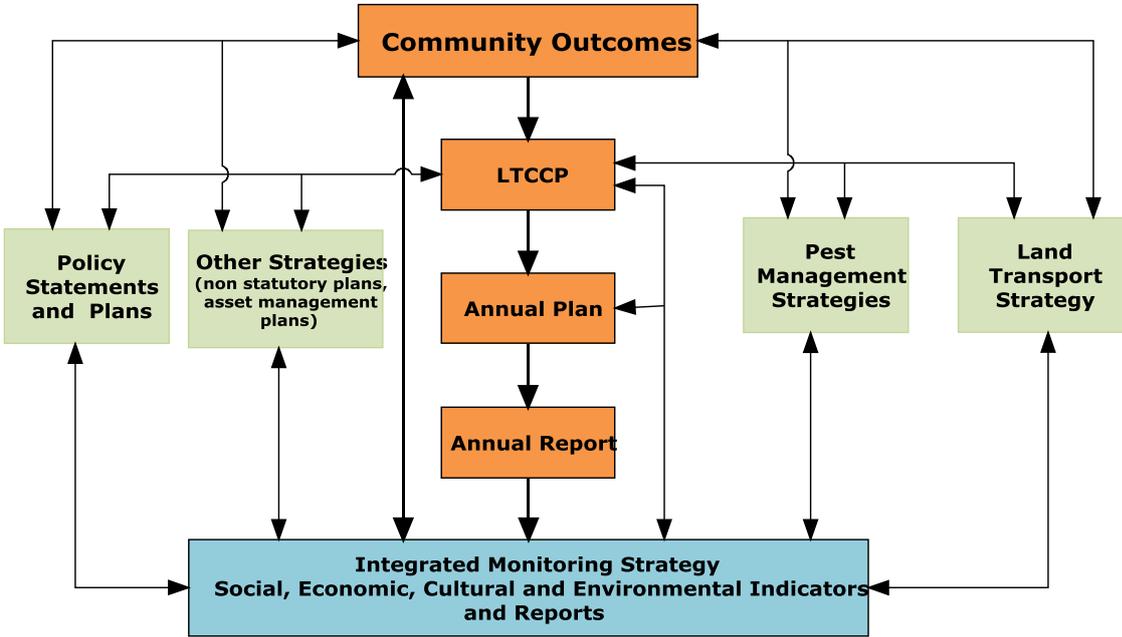
Regional Council's are required to develop policy under a number of statutes (e.g. Local Government Act 2002; Resource Management Act 1991; Land Transport Management Act 2003). Increasingly, councils are also developing non-statutory plans and strategies to address specific issues or areas. The following section of this report outlines current policy development processes within these statutes and provides some relevant feedback on policy development.

## 3.1 Local Government Act

Under the Local Government Act 2002, Environment Waikato is required to identify community outcomes for the immediate to long-term future of the Region. The process enables parties such as local authorities, central government agencies, and the community as a whole to determine what they consider important to that community. These community outcomes form the basis on which Environment Waikato develops their Long Term Council Community Plans (LTCCPs).

The relationship between these community outcomes, the LTCCP, and other council policy documents is shown in Figure 3. The community outcomes and LTCCP are central to Environment Waikato's planning framework and are intended to inform other planning functions undertaken by the council.

Environmental outcomes from the LTCCP may also inform and be incorporated into policy statements and plans under the Resource Management Act 1991, pest management strategies and land transport management strategies. Economic, social and cultural outcomes may also feed into these plans and strategies as appropriate.



**Figure 3: Community Outcomes and LTCCP relationships with other council policy documents<sup>4</sup>**

An integrated monitoring strategy collects information that meets the monitoring requirements of both the Local Government Act 2002 and the Resource Management Act 1991. For Environment Waikato this includes a set of environmental indicators to assess the effectiveness of regional policies ([www.ew.govt.nz/Environmental-](http://www.ew.govt.nz/Environmental-)

<sup>4</sup> After [www.qualityplanning.org.nz/related-laws/](http://www.qualityplanning.org.nz/related-laws/)

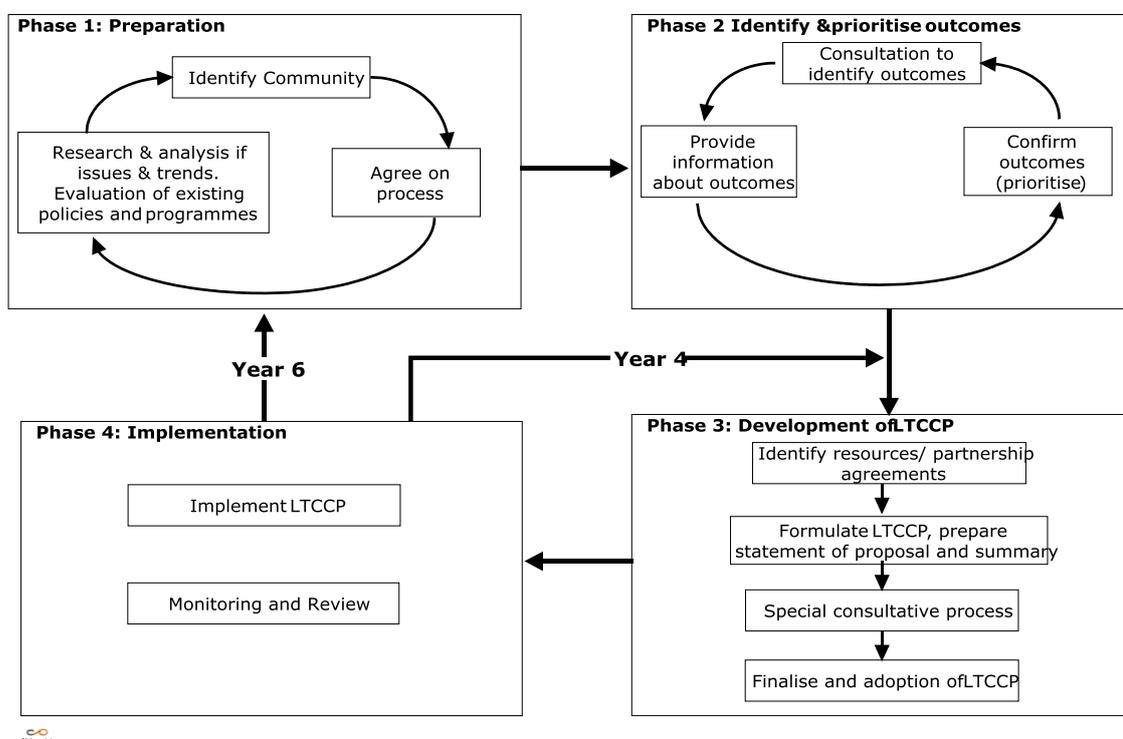
[information/Environmental-indicators/](#) ) and a set of indicators to track progress towards the achievement of community outcomes. In addition, a number of output or process focussed performance indicators are also monitored.

The Local Government Act prescribes a six year planning cycle This requires that community outcomes are established through a specific process with the community every six years. A LTCCP is then developed to reflect these desired outcomes every three years. In the intervening years, Annual Plans that specify any variations to the LTCCP are developed. An Annual Report of the Council’s activities with respect to its LTCCP and Annual Plans is required annually. At least every three years of the cycle a community outcomes monitoring report is required. This defines the progress Council has made towards achieving its outcomes for the community as defined under the existing LTCCP.

The process of defining the community outcomes and developing the LTCCP can be broken into distinct phases (Figure 4). The first phase involves the identification of the community of interest and then agreement on the process and gathering the required background information.

The second phase is a process of identifying and prioritising the community outcomes. This involves consultation between councils and their community. This identifies the desired outcomes and council then provides information about these to assist the prioritisation process.

When the outcomes are defined Council staff can then investigate methods to resource and achieve these outcomes. These are formulated into the LTCCP document, which forms the statement of proposal for use in the special consultative process that is required under the LGA 2002.



**Figure 4: Community Outcomes and LTCCP development and review process**

After adoption of the LTCCP by council the final phase is implementation and monitoring of outcomes. A set of indicators have been identified to measure and report on progress towards achieving the community outcomes.

## LTCCP Policy Development – Current Status at Environment Waikato

Environment Waikato has recently completed the development of its 2009-2019 LTCCP. This is a 'year 4' LTCCP which did not involve a review of the community outcomes and involved primarily only Phase 3 of the development process in Figure 4. In this case, the decision making process for the content and structure of the LTCCP occurred internally between management and councillors to develop a draft position. This was then only subject to limited public 'pre-consultation' before a Statement of Proposal was prepared.

A review of the Environment Waikato 2009-2019 LTCCP process has been undertaken (GHD, 2009). This report focused primarily on a number of internal organisational processes and actions undertaken for plan development. The key points relevant to this report are:

- Early direction setting with councillors needs to be at a high level and focused on getting agreement on key priorities and policy direction
- Key regional issues need to be clearly identified
- There was a lack of organisation-wide, robust priority setting process
- There was not enough time allocated for strategic coordination
- LTCCP was too compliance driven and not strategic enough

The next LTCCP processes for Environment Waikato 2012-2022 LTCCP will involve a review of the community outcomes with the community. This process is scheduled to begin the preparation phase in 2010. This will provide an opportunity to utilise and trial some of the CF tools.

During interviews with staff the need for a clear strategic direction clearly came through in comments. This strategic direction needs to identify what are the key problems in the Region and what needs managing most. This would then set some clear strategic goals for the organisation.

Environment Waikato is aware of the need to learn from previous processes and the 2009 review (GHD, 2009) aids in this learning. Other views on factors that create a gap between 'ideal' and 'actual' process were:

- access to accurate and appropriate information to base decisions on,
- ability to take a long term view,
- ability to understand and manage trade-offs among options and outcomes,
- the correct tools to manage and evaluate priority discussions, and
- the people involved.

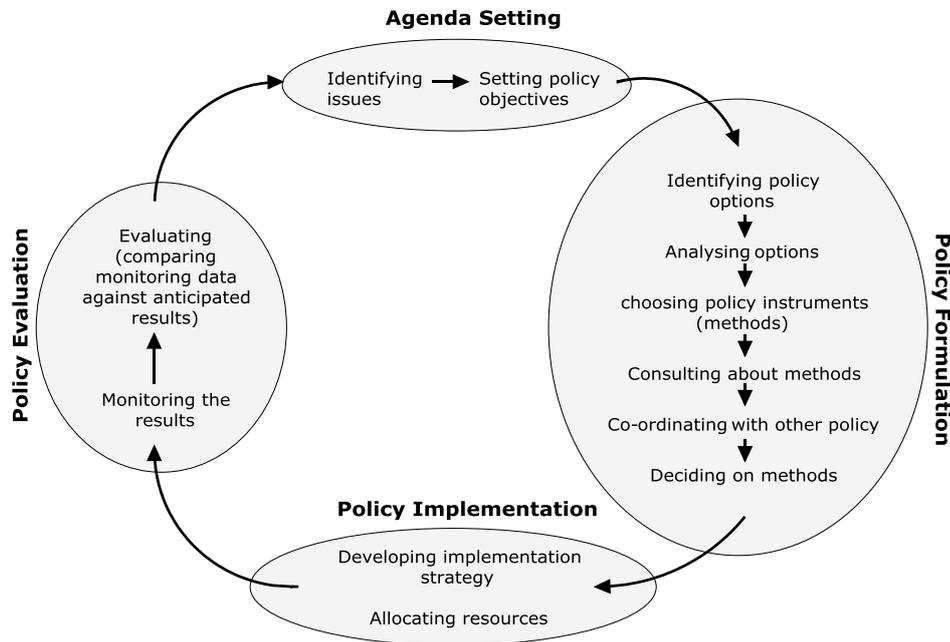
## 3.2 Resource Management Act (RMA)

The development of the Regional Policy Statement, Regional Plan, Regional Coastal Plan, and District Plans occurs under the RMA. Although each of these plans has specific requirements to fulfil under the RMA they all follow a similar policy development process (Figure 5).

The process identifies four main processes:

- agenda setting, identifies the issues and defines policy objectives that define the expected outcomes;
- policy formulation, defines and analyses the range of policy instruments that could be applied to achieve the objectives. This provides a set of policy methods (i.e. rules, incentives);

- policy implementation, takes these methods and allocates resources to applying them;
- policy evaluation, the final process in the cycle monitors the results of implementing the methods and evaluates the results against anticipated results of the policy.



**Figure 5: Generic RMA Policy Planning Cycle<sup>5</sup>**

Based on discussions with staff, a more comprehensive diagram of the policy development segment of the planning process has been developed (Figure 6). This identifies more specific process requirements and the need for feedback loops within the process to achieve the best outcome. It also recognises that the processes can have two distinct engagement groups; the decision makers for the policy, and the external stakeholders from across the community. Being specific about how and why these two groups are engaged and how information is communicated between them is very important.

The RPS process provides more opportunity to apply strategic analysis and evaluation of emerging and future environmental issues that can be captured into regional policies and objectives. Regional plan policies tend to be specifically focused on resource management issues and are directed by the RPS policies and objectives.

The RMA processes are also litigious by nature and public find it difficult to get involved via consultation. The involvement of public tends to be commonly restricted to key stakeholders, with limited wider public input outside the formal submissions process.

## **RMA Policy Development – Current Status at Environment Waikato**

Environment Waikato has several RMA policy processes currently under development. The Regional Policy Statement (RPS) is currently being reviewed and a draft RPS is due out in March 2010. The water allocation variation of the Regional Plan has been proposed and is at the appeal stage prior to Environment Court. The Regional Plan will be due for review by 2015.

<sup>5</sup> After [www.mfe.govt.nz/publications/rma/drafting-issues-jul03/html/page2.html](http://www.mfe.govt.nz/publications/rma/drafting-issues-jul03/html/page2.html)

The RMA policy processes tend to be narrowly focused on resource issues, and do not tend to integrate readily across the other outcomes. Although thorough analysis of policy options is required via section 32 of the RMA, the development of options is generally based on an internal evaluation, best judgement, and staff experience of issues and options. Generally, a systematic approach to option identification and analysis or the use of decision support tools does not occur.

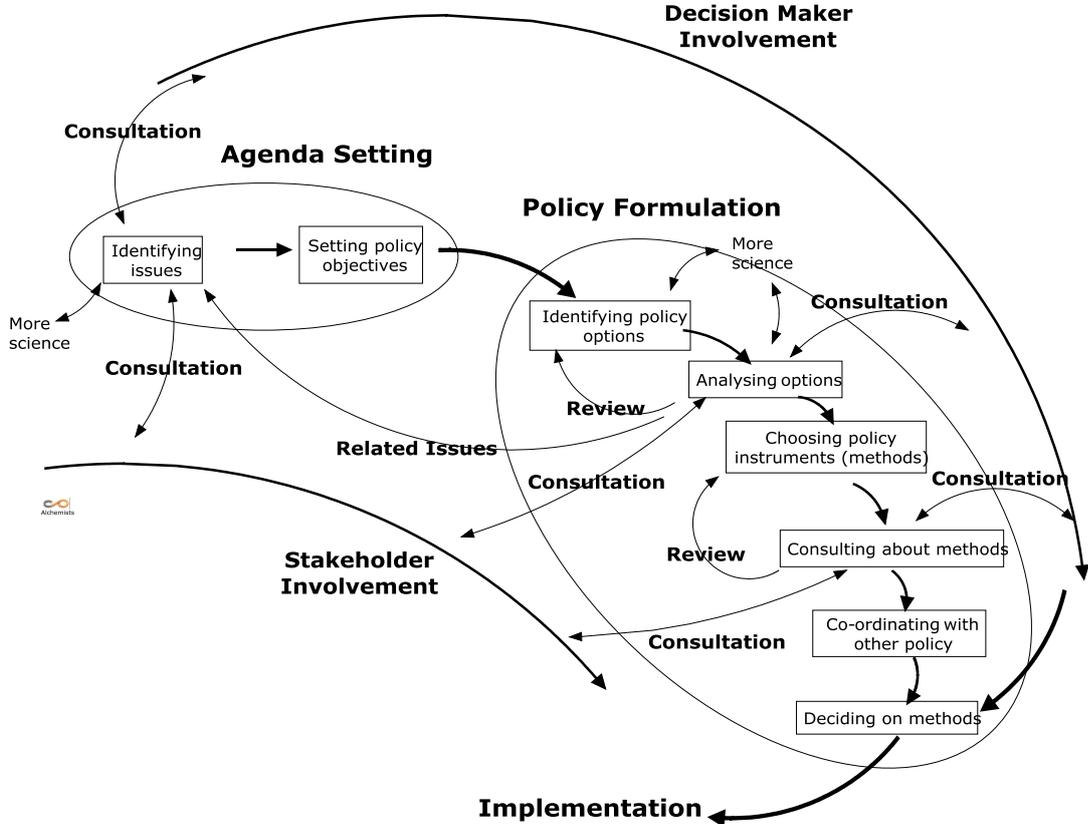
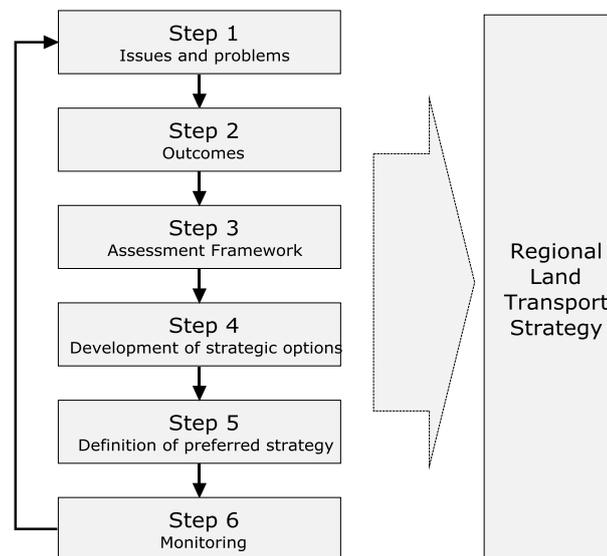


Figure 6: Process details within the policy development part of the planning cycle.

### 3.3 Land Transport Management Act

The development of a Regional Land Transport Strategy (RLTS) is required every three years under the Land Transport Management Act. The development process is outlined in Figure 7. This involves an initial step to identify transport issues and problems through analysis and strategic studies. Broad and specific transport outcomes are then identified.

The third step involves the development of an assessment framework which can be used to assess the potential effects of strategic alternatives and options. This allows for the definition of a preferred strategy taking into account the effectiveness at achieving outcomes and the trade-offs required by the different options.



**Figure 7: Regional Land Transport Strategy development process<sup>6</sup>**

## **Land Transport Policy Development – Current Status at Environment Waikato**

Environment Waikato is currently reviewing its RLTS. The issues and outcomes have been identified, and the assessment framework is being developed. The aim is for the strategic options to be identified by April 2010, with the draft RLTS completed by August 2010.

There was strong interest from transport staff about the integrated analysis that the CF tools could provide to a process such as the RLTS review. The integration of transport planning with other council processes, such as LGA and RMA policy, was seen as an area for improvement.

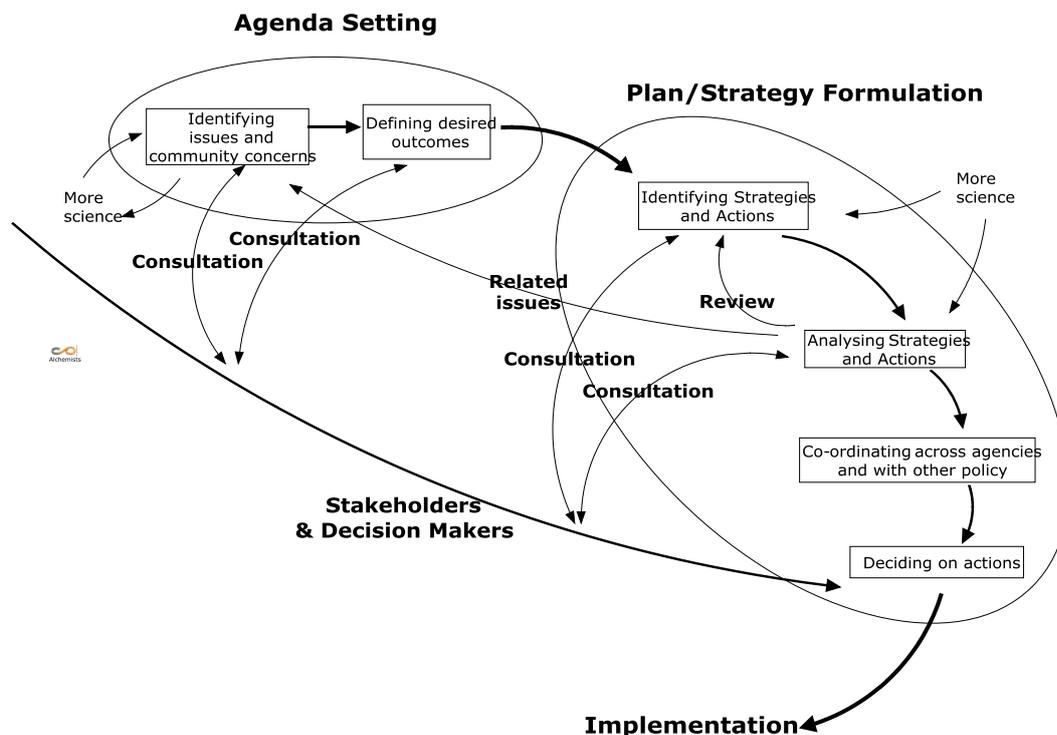
### **3.4 Non Statutory Plans & Strategies**

In addition to the range of statutory policy developed as required by legislation, Environment Waikato prepares a range of non-statutory plans or strategies for specific areas or management issues.

The process for developing these documents is not directly guided by legislation. However, the principles of consultation outlined in the LGA 2002 are often applied when working with the community on these plans and strategies. The broad process for developing these is defined in Figure 8. For these documents, the decision makers and stakeholders often work together and can operate in specific working group(s). The make up of these groups can involve staff from district and city councils and key community representatives.

These processes often involve more community interaction to identify the issues and outcomes for the local community. This process can often involve the demand for more science and information about specific areas of concern.

<sup>6</sup> After Land Transport New Zealand, 2004



**Figure 8: Development process for non statutory plans and strategies**

These non statutory plans allow more opportunities of information sharing and input from the community and key stakeholders than more formal processes, meaning they are more involved in the formulation of plans or strategies. The processes tend to have a longer time frame with more development iterations with the community and key stakeholders.

Implementation of these types of plans is often through statutory plans such as the LTCCP, RPS, or district plans and as such they represent significant strategic input to regulatory policy documents.

## **Non-Statutory Policy Development – Current Status at Environment Waikato**

Environment Waikato has been involved in several non statutory processes in recent years, including Blueprint in the Coromandel, Shore Futures for the West Coast harbours, and FutureProof for the Hamilton Basin.

The processes for each project have been specifically developed to meet the needs of the community, stakeholders and agencies involved. They have tended to follow the broad process outlined in Figure 8, but have had additional specific steps or iterative loops to meet the projects needs.

## **3.5 Key Observations and Closing the “Gap”**

A number of observations were made during the development of this report. These are grouped together under this section as many of them are general in nature or came from staff that have experience in a range of processes:

- There is a need for tools that can provide for integration of the issues and a long term view with strong visual outputs. Currently Environment Waikato has a

lot of information but it is not well integrated. The tendency is to use existing models and look at single trends

- Currently information analysis and decision making is generally unsupported by tools. Community/communication surveys can be utilised to get an understanding of community, but there are limited tools to support social and economic trade off decisions.
- Biggest barrier will be getting buy-in from staff and Council. There is a need to change the organisational culture towards striving for excellence and to 'do things differently'.
- An internal communication or information transfer barrier exists, in which investigative and research work is undertaken by staff and not always used in the policy development processes that follow.
- Both staff and the community can have difficulty grasping the problems, and need things put into context for them. Providing information on possibilities and educating them in futures thinking could assist them to engage better in policy development.

In many cases staff acknowledged that there is a gap between what they would like to do, or knew was good practice, and the actual process followed. Future efforts to reduce this gap could be seen as an ongoing process of continuous improvement.

Recommended actions to close the gap are:

- Earlier initiation of projects, making time for planning, research and community engagement
- Staff training on policy processes and process improvement based on previous experiences
- Better planning for engagement with community and stakeholders that better utilises available tools and information. Consideration of multiple issue/project consultation approach.

## 4 Potential Opportunities for CF Tools

The primary purpose of this report is to understand the policy processes at Environment Waikato so that suitable opportunities to use the CF tools outlined in Section 2 can be identified. Section 3 has outlined the range of policy development processes undertaken at Environment Waikato and identified a number of issues within the current processes. This section looks at each of these policy processes and identifies potential opportunities to use specific CF tools to improve policy development.

The CF tools can be used together as an integrated package, or separately for specific purposes in the policy development process. The decision on when or how to use will depend on:

- nature of the policy questions being asked,
- extent of existing information on issues,
- type of process being used, and
- current phase of process.

## 4.1 Lessons Learnt and Barriers

When considering the implementation of the CF tools it is worth reflecting on the lessons that have been learnt by others, and to identify the key barriers and potential solutions to these barriers. With respect to lesson learnt, Van Delden (2009) identifies eight elements that determine the success or failure of ISDSS's such as WISE:

1. Strategic value: to what extent does the system provide added value to the current planning practice?
2. Availability of appropriate data, knowledge and models: what is available or can easily be collected?
3. Credibility of the system: do the users have faith in underlying assumptions?
4. Domain language of the system: does it fit the users' worldview and connect to their perception?
5. Institutional embedment: where will the system be based in the organisation? Who will use it?
6. Culture: are people committed to use the system and to integrate it into the planning process?
7. Ease of use: is the user interface quick and simple to use and provides easy access to all functionality? How much training is required to work with the system and interpret the results?
8. Maintenance and support: are the data and models included regularly updated? Is there expert support to optimally use the model and analyse/interpret the results?

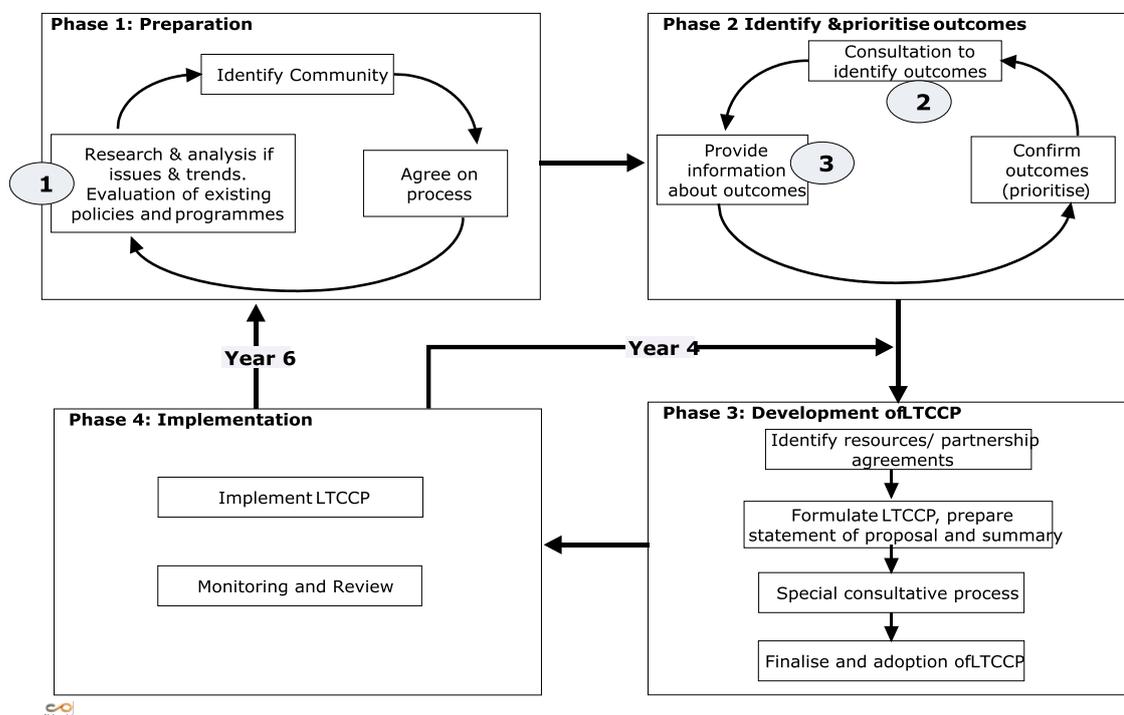
The implementation of the CF scenarios and deliberation tools are also likely subject to elements 1,3,6, and 7. Although the discussion here focuses primarily on the implementation of WISE, these principles can be applied to the specific opportunities for scenarios and deliberation tools.

Understanding the policy development processes that occur within Environment Waikato helps to identify specific requirements for success under several of the key elements identified by Van Delden (2009). These are considered in the following sections that look at the opportunities to use the CF tools in different policy processes. Selecting suitable opportunities needs to consider both these key elements, other barriers to CF tool uptake, and changing policy development processes. Based on feedback from interviews and assessment of the planning processes, a number of barriers to the successful implementation of the tools have been identified:

1. Getting user buy-in of the tools (staff, council) that they are useful and add value
2. Existing "planning think" paradigm, needs to be altered to allow for new tools and methods
3. Knowledge of decision tools and processes needs to be improved with policy staff
4. Time frames are often under pressure – early project initiation seldom occurs and 'political expediency' can drive over good practice
5. Statutory processes are often followed closely and there is cautiousness about new or different methods or approaches
6. The cost/benefit of a different approach – is there value-add for effort and expenditure
7. These barriers can vary between processes

## 4.2 LTCCP Planning – Use of CF Tools

The key opportunities for utilising the CF tools in the LTCCP process occur in Phases 1 & 2 (Figure 9). These phases are when the assessment of issues and trends are being undertaken and discussions are being held with the community to determine desired outcomes. This only occurs every six years, making it an important opportunity to improve the planning process.



**Figure 9: LTCCP - Identified Opportunities to use Creating Futures tools**

The establishment of the community outcomes and their role in defining the LTCCP is probably the most significant step with respect to utilising the CF tools in LGA policy development.

Three specific opportunities have been identified (see Figure 9):

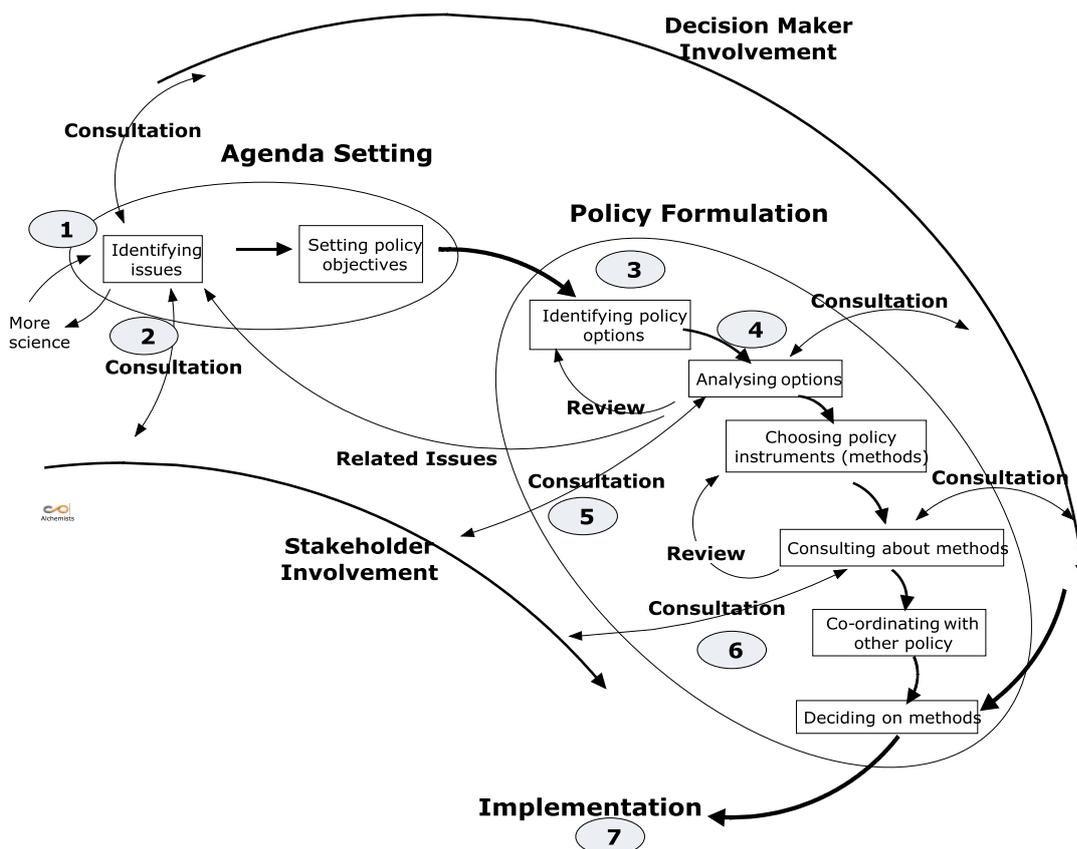
1. Research and analysis of trends and issues:
  - WISE: using WISE could provide information across the outcomes and would add significantly to research and analysis in this process. This process, although predominantly undertaken by Environment Waikato staff, could add value to discussions with other key agencies.
  - Scenarios: could be useful to develop strategic thinking about the future. Stretching the thinking about trends, pressures and diversity of future outcomes.
2. Consultation to identify community outcomes:
  - Deliberation Matrix: The deliberation matrix process could be used to assist in the process of identifying and prioritising the outcomes by providing a robust framework against which to evaluate and agree on the trade offs required in achieving complementary and conflicting outcomes.
3. Information about outcomes:
  - WISE: specific application of WISE to provide actions and consequences to achieve desired outcomes (information would be used in point 2).

These opportunities would next be available during the review of Environment Waikato community outcomes when preparing its 2012-2022 LTCCP. This process is expected to start during 2010. At this time it might be best to start with using WISE as a ‘what if’ exploration tool, running a range of “what if” concepts to inform outcomes development with the aim of building understanding and confidence in WISE and proving the

strategic value of this tools before promoting a more integrative use of the other tools. In utilising this approach the identified barriers would need to be addressed or minimised to achieve a successful outcome.

### 4.3 RMA Policy – Use of CF Tools

The key opportunities for utilising the CF tools in the RMA policy process are identified in Figure 10.



**Figure 10: RMA Policy - Identified Opportunities to use Creating Futures tools**

Seven specific opportunities have been identified (see Figure 10):

1. Identification of Issues
  - WISE: a more thorough and integrated analysis of the issues both current and emerging could be achieved through the use of a tool like WISE.
  - Scenarios: The four Waikato scenarios could be used to stretching staff thinking about trends, pressures and diversity of future issues.
2. Consultation on Issues: All three tools could be used at this point
  - WISE: as a highly visual tool WISE has great potential for communicating the issues, options and potential outcomes from different policy approaches as part of the consultation process
  - Scenarios: could be used with key stakeholders to explore the futures under which the policy might need to work.
  - Deliberation Matrix: The deliberation matrix process could be used to assist in the process of identifying and prioritising the outcomes by providing a robust framework against which to evaluate and agree on the trade offs required in achieving complementary and conflicting outcomes.

3. Assisting in development of policy options as required by S32 of RMA
  - WISE: could provide an integrated analysis of the proposed options, helping to provide consistent assessments of the range of options with data on the relative economic, social and environmental outcomes of a option.
4. Analysis of Selected option
  - WISE: as per point 3
5. Consultation on Options
  - WISE: as per point 2, but focussing tools onto options
  - Deliberation Matrix: as per point 2, but focussing tools onto options
6. Consultation of Methods
  - Deliberation Matrix – at this point in the policy development process there is alot of analysis already undertaken and the requirement is for a process where the methods proposed can be assessed based on the information generated in steps 1-5. The deliberation matrix process could be useful in this step of the process.
7. Implementation of Policy
  - WISE: this tool could be used in the development of policy implementation plans. Approaches to implementation could be simulated in WISE to see the outcomes from different management approaches.

Environment Waikato is currently in the middle of developing its next RPS which is due to be in draft by March 2010 and formally proposed in August 2010. Although the RPS is currently underway there could still be productive opportunities to utilise WISE for evaluating some specific issues or ‘what-if’ modelling at points 3 and 4 in Figure 10.

Further consideration should be given to the value of using the CF tools as part of the upcoming Regional Plan review. Utilising the futures strategic thinking that can be gained from the scenarios and ‘what if’ type testing of WISE could help to develop more robust policy that can withstand future changes such as large scale land use change.

## 4.4 Regional Land Transport Strategy – Use of CF Tools

The key opportunities for utilising the CF tools in the Regional Land Transport Strategy are identified in Figure 11.

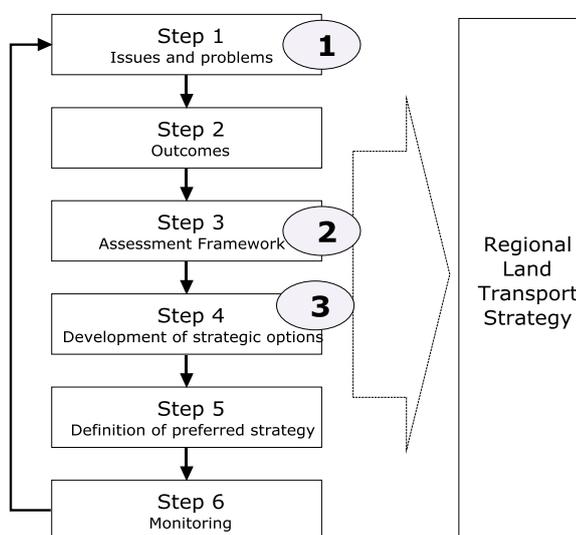


Figure 11: Transport - Identified Opportunities to use Creating Futures tools

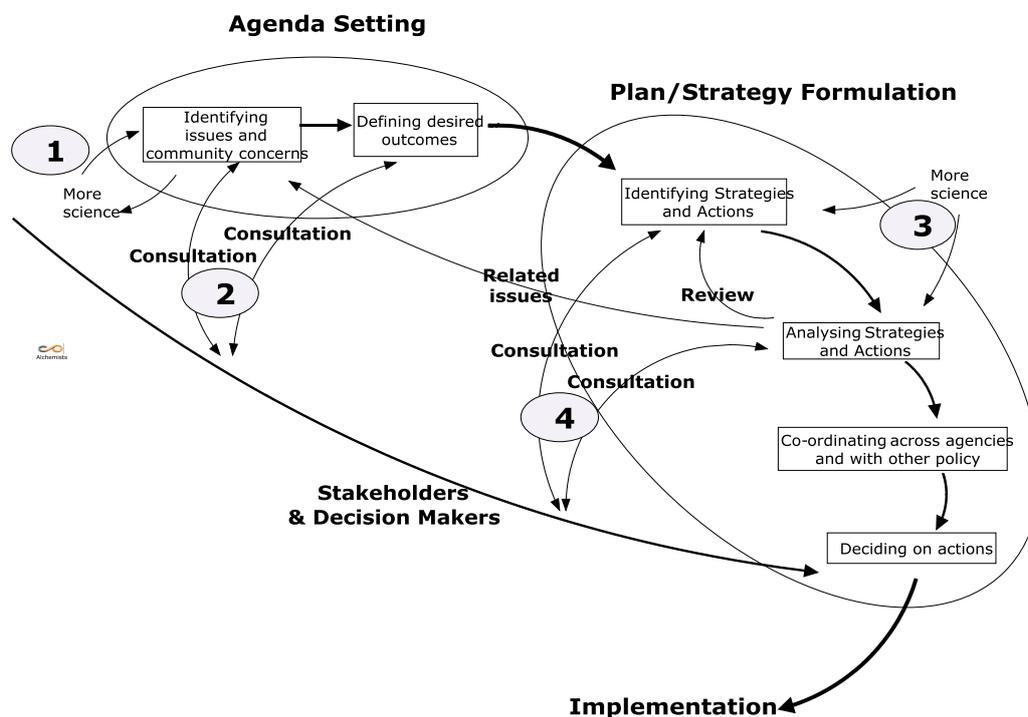
Three specific opportunities have been identified (see Figure 11):

1. Identification of Issues
  - WISE: providing an integrated analysis of information across the outcomes and would add significantly to research and analysis in this process, especially if the Waikato transport model was integrated into WISE. This tool would also add value to discussions with other key agencies.
2. Assessment Framework
  - WISE: as per point 1, but utilised as part of an assessment process, providing a supporting tool for assessing options.
3. Developing strategic options
  - WISE: Used as a ‘what if’ testing tool to run through the range of ideas and assess their implications, thereby developing a more robust set of strategic options.

The RLTS review is already underway, and the opportunity to add value to the process at this stage may be limited to providing some ‘what if’ testing of ideas. There is a significant opportunity to integrate the Waikato transport model that is currently being developed into a future version of WISE. This could make the combined tools a very powerful combination for use in the next review of the RLTS.

## 4.5 Non Statutory Plans and Strategies – Use of CF Tools

The key opportunities for utilising the CF tools in non statutory processes are identified in Figure 12.



**Figure 12: Non Statutory Plans - Identified Opportunities to use Creating Futures tools**

Four specific opportunities have been identified (see Figure 12):

1. Issue Identification
  - WISE: a more thorough and integrated analysis of the issues both current and emerging could be achieved through the use of a tool like WISE, This

- would provide useful information for discussions between stakeholder and decision makers.
  - Scenarios: the four Waikato scenarios could be used to stretching stakeholder and decision makers' thinking about trends, pressures and diversity of future issues.
2. Consultation
    - WISE: as a highly visual tool WISE has great potential for communicating the issues, options and potential outcomes from different policy approaches as part of the consultation process
    - Deliberation Matrix: The deliberation matrix process could be used to assist in the process of identifying and prioritising the outcomes by providing a robust framework against which to evaluate and agree on the trade offs required in achieving complementary and conflicting outcomes
  3. Information on actions/strategies
    - WISE: as an integrative model WISE would be able to provide relative outputs on environmental, social and economic implications of the different actions or strategies that might be proposed in a non statutory process.
  4. Consultation – as per point 2.

Environment Waikato has recently prepared, in collaboration with other agencies, a number of non-statutory plans. There are both current and emerging opportunities under this area that could benefit from using some of the CF tools. Further internal discussion would be required to identify the most appropriate opportunities which take into account project timing and resourcing.

## 4.6 Selecting Opportunities for CF Tools

Selecting the right opportunity and the level of integration of tools will depend on the integrative nature of the questions being asked in a policy issue and the information that is available to the policy process. The level of involvement and type of community engagement used in a policy process will also influence how the CF tools might add value to a project.

Opportunities can be suggested, but it will require internal negotiations to engender both support for the use of the tools and commitment by staff to include them in their policy process. It is likely that the tools will initially be more acceptable to a non statutory process as these tend to involve a wider range of issues requiring more strategic discussion and consultation between stakeholder and decision makers. Non statutory processes are also likely to be more suited to using the highly visual outputs from WISE and open to utilising new processes for deliberating different strategies or actions and their consequences.

In identifying opportunities to use the CF tools it is likely to be more acceptable if tools are introduced one at a time into staff's 'policy tool-box'. The introduction of one new tool into the existing Environment Waikato 'planning paradigm' is likely to be challenge enough, without trying to implement and integrated set of tools. The initial use of case studies to create examples of their use and establish internal champions for the tools is recommended.

It will be important to develop an implementation plan that will seek to address or minimise the main barriers that could affect uptake of the CF tools. The amount of time and resourcing for using CF tools will be weighed against the added or strategic value seen to be gained. This could be considered the greatest barrier. This plan should also look to address the key elements of success as outlined by van Delden (2009).

## 5 Recommendations

This report represents the first detailed analysis of policy development processes undertaken as part of CF. Based on these findings the following recommendations are made which include areas identified for further investigation to refine end user implementation:

1. The specific CF tools (e.g. WISE, scenarios, deliberation matrix) should initially be trialled separately within Environment Waikato before promoting their use by other agencies or prior to linking tools together into an integrated package. This approach would assist with building knowledge and capability with users, highlight the merits of the tools and inter-linkages, and could assist with an incremental change in the internal 'policy development paradigm'.
2. Trialling the CF tools initially in a non-statutory process rather than the LTCCP process would be preferential. The non-statutory process would be more focused on a community, an area and its issues. These processes are also more open to idea development and are not burdened by legislative drivers. This should allow for more experiential use of the tools and could therefore improve initial user buy-in.
3. Specific application opportunities for the CF tools that best meet the objectives of the research project and to encourage uptake of the tools should be agreed internally and followed up. These opportunities should look to establish a group of internal champions for the use of the tools. Recommended opportunities are:
  - RPS: although the development of the new RPS is well advanced there are still opportunities to utilise WISE for exploring some specific scenarios and for learning, educating and consulting with the decision makers and key stakeholders during the 'draft to proposed' timeframe. Given the importance of the RPS review internally for EW, as well as externally for the Waikato territorial authorities (Hamilton City, district councils), iwi and other stakeholders, options to use WISE in the RPS process should be further explored.
  - Sustainable Agriculture Strategy: the use of WISE and deliberation processes could be used to identify the implications of specific scenarios or strategies as part of the discussion to developing robust strategies for achieving sustainable agriculture.
  - Upper Waikato land and river management: the management of land use in this area is a particular focus for Environment Waikato. The use of WISE in any policy development or co-management discussions would provide for more integrated assessment of the issues and options and assist with increasing the knowledge of decision makers and key stakeholders.
  - RLTS: this policy document is currently being reviewed and could benefit from the integrated assessment of future land use changes on transport requirements. It would be a good development opportunity to build further capacity for the tool in Environment Waikato.
  - LTCCP Community Outcomes: look to utilise WISE as an internal scenario testing tool as part of the research and analysis phase, and trial the deliberation matrix for focusing discussions during prioritisation of community outcomes.
4. Development of an uptake strategy and implementation plan that outlines specific actions required to follow up on the recommended opportunities outlined above. This plan should target the key elements for success (van Delden, 2009) and also identify actions that should be taken to overcome the main barriers. Specifically:
  - Optimising end user buy-in through:
    - a. Improving knowledge of tools, uses and value
    - b. Making tools useable, credible and supported

- c. Identifying further improvements and modifications to current tools
    - Minimising the additional time and resources required to use the tools
    - Identifying strategies to change the existing paradigms of approaches to planning and community consultation
    - Planning for required technical support for data, training and model set up
- 5. The need for the organisation to develop clear strategic priorities and to make some policies more strategic can be assisted by the use of the CF tools. This could include the use of the scenarios in strategic discussions and business planning or WISE for testing strategies and exploring futures thinking in conjunction with available indicator and issue information.
- 6. The organisational issues identified by the 'gap' between good practice and actual practice should be fed back to the Environment Waikato Executive Team for consideration. Improving these issues organisationally will facilitate use and uptake of the Creating Futures tools by reducing the associated barriers.

## 6 References

Borrie, N., Memon, A., Ericksen, N., & Crawford, J. 2004. Planning and Governance under the LGA: Lessons from the RMA experience. Planning Under Co-operative Mandates, The International Global Change Institute, Hamilton, New Zealand.

Delaney K, Huser B (2008) Future Scenarios for the Waikato – Revised version June 2008. Report produced for Environment Waikato. URL: <http://www.creatingfutures.org.nz/assets/Uploads/Scenarios-Files/EWDOCS-1344391-v2-WaikatoScenarios-FullReport-with-Photos.pdf>.

GHD, 2009. Environment Waikato Regional Council, LTCCP Review. October 2009.

Huser, B., D.T. Rutledge, H. van Delden, M.E. Wedderburn, M. Cameron, S. Elliott, T. Fenton, J. Hurkens, G. McBride, G. McDonald, M. O'Connor, D. Phyn, J. Poot, R. Price, B. Small, A. Tait, R. Vanhout, and R.A. Woods (2009), Creating futures: towards an integrated spatial decision support system for Local Government in New Zealand, Proceedings of the 18th World IMACS / MODSIM Congress, Cairns, Australia 13-17 July 2009.

Land Transport New Zealand 2004. Regional Land Transport Strategy Guidelines. December 2004. Wellington, New Zealand

Local Government New Zealand 2003a. The KnowHow Guide to Decision Making – under the Local Government Act 2002. March 2003. Wellington, New Zealand.

Local Government New Zealand 2003b. Local Government Act 2002: An overview. August 2003. Wellington, New Zealand.

Parliamentary Commissioner for the Environment 2003. Illuminated or blinded by science? A discussion paper on the role of science in environmental policy and decision-making. July 2003, Wellington, New Zealand.

Parliamentary Commissioner for the Environment 2004. Missing links: Connecting science with environmental policy. September 2004, Wellington, New Zealand

Rutledge, D., McDonald, G., Cameron, M., McBride, G., Poot, J., Scrimgeour, F., Price, R., Phyn, D., van Delden, H., Huser, B., Small, B., Wedderburn, L. & Fenton, T. 2007. Development of Spatial Decision Support Systems to Support Long-term, Integrated Planning. In Oxley, L. and Kulasiri, D. (eds) MODSIM 2007 International Congress on Modelling and Simulation. Modelling and Simulation Society of Australia and New Zealand, December 2007, pp. 308-314. ISBN : 978-0-9758400-4-7.

Rutledge, D.T., M. Cameron, S. Elliott, T. Fenton, B. Huser, G. McBride, G. McDonald, M. O'Connor, D. Phyn, J. Poot, R. Price, F. Scrimgeour, B. Small, A. Tait, H. van Delden, M.E. Wedderburn, and R.A. Woods (2008), Choosing Regional Futures: Challenges and choices in building integrated models to support long-term regional planning in New Zealand, Regional Science Policy & Practice, 1 (1), 85-108.

Van Delden, H. 2009. Lessons learnt in the development, implementation and use of Integrated Spatial Decision Support Systems. Proceedings of 18<sup>th</sup> World IMACS/MODSIM Congress, Cairns, Australia 13-17 July 2009.

Wedderburn, L., O'Connor, M., Small, B., and Barnard, T. 2008a. Creating Futures – Deliberation Workshop. Report produced for Environment Waikato on behalf of the 'Creating Futures' programme. Hamilton, March 2008.

Wedderburn, L., Bruce Small, B., and Barnard, T. 2008b. Deliberation Workshop 16 June 2008 Report produced for Environment Waikato on behalf of the 'Creating Futures' programme. Hamilton, October 2008.

Wedderburn, L., Small, B., and Barnard, T. 2009. Deliberation Workshop 18 November 2008 Report produced for Environment Waikato on behalf of the 'Creating Futures' programme. Hamilton, January 2009.