

Creating Futures



Creating Futures - Deliberation Workshop 18 Nov 2008

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Information

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Choosing Regional Futures – Deliberation Workshop, 18 November 2008 9am – 1:15

Participants

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Tim Barnard	SCION
Daniel Rutledge	Landcare
Martin Butler	Regional Planner BOP
Urlwyn Trebilco	Environment Waikato
Dell Hood	Waikato Health Board

Context

This report documents the outcomes from a workshop held with policy people as part of their on-going training in the use of deliberative processes that may assist in long term community council planning. This activity is central to objective 1 of the Creating Futures FRST research programme where the development and application of a deliberative process occurs. This is the fourth workshop and the second where land fragmentation has been the issue under study.

Purpose

To date we have focused on the development of the deliberation process and use of the associated tools (Deliberation Matrix, indicator kiosk) to allow the evaluation of strategies formed to address a particular set of issues or problem.

We now move our attention to step 1 in the process “Identifying the problem” i.e. that of defining the problem scope and boundaries to be addressed and the associated stakeholders.

In this workshop we continued with our focus on ‘land fragmentation’ and explored a methodology to assist with the definition of the issues in a systemic manner.

Deliberation Process

To refresh our understanding we are learning and applying a six step deliberation proposed by Martin O'Connor of C3ed France^{1,2,3}

The six steps of the deliberation process are:

1. Identify the problem
 - What is the problem, at what scale does it occur, who is it a problem for, why is it a problem?
2. Organise the problem
 - What are the options/strategies to address the problem, who are the stakeholders/actors in regards to the problem and the strategies, what are the value issues involved (the criteria by which problem and strategy are evaluated)?
3. Identify and mobilise tools for representation (e.g., maps, models of processes and systems).
4. Deliberate the consequences of the proposed strategy with regard to the identified stakeholders and the identified value criteria.
5. The preparation, validation and communication of the results and recommendations
6. Return to step one (the deliberation process is iterative).

The deliberation workshop

In this workshop we concentrated on step 1 ‘identifying the problem’ through the use of system methods and the development of a conceptual model to prepare a sound information and knowledge base for the deliberation process.

This approach was taken by the workshop participants to:

- Develop a better shared understanding of the systems/processes that lead to land fragmentation
- Collectively learn about the impact of land fragmentation on a range of outcomes
- Identify the stakeholders associated with the system
- Identify where interventions can be made to improve the outcomes
- Identifying data, information and indicator needs.

Methodology

The methodology used in this workshop has been sourced from Maani and Cavana, 2007.

Step 1: Affinity Diagram 1

The group worked as individuals using post-it notes to capture each answer to the following questions.

- What is land fragmentation and how do you measure it?
- What are the components of land fragmentation?
- What do you use to measure land fragmentation?

The information was captured on butchers paper and remained on the wall for reference throughout the workshop. Individuals were given time to note each other's responses.

Step 2: Affinity Diagram 2

The group worked as individuals to **compile a list of the drivers that result in land fragmentation** and put one driver per post it note. Individuals were encouraged to use nouns with no adjectives and place the driver in a positive light e.g.

The notes were placed onto a large piece of paper and placed in columns of similar drivers.

Collectively the group shifted them around until they were happy with their grouping. They then discussed the columns and give each an overarching title that acted as a message to describe the column.

Step 3: Affinity Diagram 3

Step 2 was repeated to **compile a list of variables that land fragmentation influences**.

Step 4: Behaviour over Time

For each of the drivers that help create land fragmentation and the variables that are influenced by land fragmentation that were identified in steps 1-2, the trend for their behaviour over the last ten years was drawn (Behaviour over time, BOT). The insights that the group gained about the behaviour and the relationships between the trends was documented.

Results

Table 1 Affinity Diagram 1: What is land fragmentation? How could you measure it?

Economics	Population density – people	Intensification	Urbanisation	Purpose Needs
<ul style="list-style-type: none"> • Diverse local economics • Compatible land use to incompatible <ul style="list-style-type: none"> - reverse sensitivity • Idle land • Uneconomic business • Lots used for different purposes 	<ul style="list-style-type: none"> • Few people too many people • High interspersion • One/few → many owners • Increased residential settlement <ul style="list-style-type: none"> - dwelling/lot • Lots owned by different owners 	<ul style="list-style-type: none"> • Extensive land use to intensive • Intensive production 	<ul style="list-style-type: none"> • Urban expansion • Relatively permanent • Increased peri-urban population • Rural satellite communities 	<ul style="list-style-type: none"> • Usually residential • Hobby farms • Lifestyle blocks • Holiday homes • Retirement properties
Adverse effects	Fragmentation	Legal/planning	Rural character	Infrastructure
<ul style="list-style-type: none"> • Loss of ecological integrity • Wetland drainage • Loss of productive land • Community change/disruption • Coastal/riparian development 	<ul style="list-style-type: none"> • Small lots from large lots • Chopping/splitting of land ownership/tenure • Land parcels of varying sizes • Large land use units to small units • Splitting of land titles into smaller lots 	<ul style="list-style-type: none"> • Parcelisation/division • Subdivision • Peri urban subdivision • Subdivision <ul style="list-style-type: none"> - Legal division • Subdivision of rural land around urban centres 	<ul style="list-style-type: none"> • Cluttered landscapes • Ad hoc development • Diversity 	<ul style="list-style-type: none"> • Un-serviced to serviced • Inefficient infrastructure • Increased commuter traffic • Transport corridors isolating land areas • Development of urban infrastructure in semi-rural areas

Table 2: Affinity Diagram 2: Drivers of land fragmentation

Demographic change	Labour market	Land use planning	Social status	Lifestyle values	Economics of land use	Affluence	Property Rights	Rates
<ul style="list-style-type: none"> Population Demographics Urban population growth Housing Urban proximity 	<ul style="list-style-type: none"> Labour shortage Migratory workers 	<ul style="list-style-type: none"> Planning District plan controls Development Permissive legal/policy framework Permitted Regulation Land protection 	<ul style="list-style-type: none"> Status Social statement Wants 	<ul style="list-style-type: none"> Values e.g., self-sufficiency Lifestyle Fashion Space Recreation Lifestyle or choice Expectations Households with multiple homes Culture <ul style="list-style-type: none"> Rural idealism Lifestyle Quality of life Lifestyle choice Privacy Whanau 	<ul style="list-style-type: none"> Economics of intensive land use Profit Economy Commodity prices eg, butter Market 	<ul style="list-style-type: none"> Affluence Wealth Affordability 	<ul style="list-style-type: none"> Rights Fairness Now Ownership Family-based farm ownership Cultural viewpoints Individual ownership 	<ul style="list-style-type: none"> Rates Rating base Interest rates Taxation
Aging rural workforce	Aesthetics	Business	Infrastructure Rural Services	Land values	IT	Security Safety	Transport cost	
<ul style="list-style-type: none"> Retirement <ul style="list-style-type: none"> Farmer Urbanite Retirement Retiring farmers Retirees stay on their land 	<ul style="list-style-type: none"> Views Water Climate Coastline Nature Clean & green Connection Preference for living in the country Appreciation of environment 	<ul style="list-style-type: none"> Business opportunities Employment opportunities Investment opportunity 	<ul style="list-style-type: none"> Sewerage Roading Presence of rural services eg, schools Roading Transport infrastructure Transport 	<ul style="list-style-type: none"> Land price Land value Capital value of land Profit Liquidating capital asset High price of land Greed 	<ul style="list-style-type: none"> Information technology eg, for remote working Internet Communication technology Broadband 	<ul style="list-style-type: none"> Crime & urban violence Sense of personal security Urban quality of life 'Perception' of urban crime Pollution 	<ul style="list-style-type: none"> Petrol price Transport Costs Fuel price Resources 	

Table 3: Affinity Diagram 3 variables that land fragmentation influences

Landuse	Business	Employment	Health services	Schools	Social Networks	Demographics	Farm Enterprise	Energy	Te ao Maori	Infrastructure
<ul style="list-style-type: none"> • Landuse diversity • Land management and practices • Productivity 	<ul style="list-style-type: none"> • Local businesses • Farming supply retailers • Business • Construction industry • Commodities • Production • Shops and retail opportunities 	<ul style="list-style-type: none"> • Employment • Occupation • Local Employment • Employment opportunities • Tourism 	<ul style="list-style-type: none"> • Health • Hospitals • Clinics • Collection services 	<ul style="list-style-type: none"> • School attendance • Schools • School roles • Health & education provision 	<ul style="list-style-type: none"> • Rural culture • Social networks • Voluntarism • Community • Social cohesion • Community (social cohesion) • Community Identity • Community viability • Local food source 	<ul style="list-style-type: none"> • Demographics • Peri-urban population density • Productive capacity • Child population • Social economic profile • NZ Dp • Population • Population density 	<ul style="list-style-type: none"> • Farm viability • Land productivity 	<ul style="list-style-type: none"> • Energy use • Energy demand • Electricity supply • Electricity generation 	<ul style="list-style-type: none"> • Archaeological resources • Cultural resources • Historical resources 	<ul style="list-style-type: none"> • Waste management • Water & waste reticulation • Infrastructure • Communications • Accessibility • Demand for services • Roading • Road use • Roads • Mail delivery • Traffic congestion • Public transport availability • Size of vehicle • Delivery of services
Landscape Aesthetics	Housing	Risk	Property Boundaries	Government System	Land Affordability	Water Nutrients	Recreation Amenity	Natural Capital	Service Demand	
<ul style="list-style-type: none"> • Landscape quality • Aesthetics • Landscape • Views Viewsheds • Naturalness • Aesthetics • Noise • Light levels • Odour 	<ul style="list-style-type: none"> • House prices • Local housing types • Affordable homes for locals • Housing stock • Dwelling size 	<ul style="list-style-type: none"> • Risks • Risks ie, Fire... Water • Invasive species • Biosecurity • Environment Court cases • Reverse sensitivity • Accessibility to minerals (sand & gravel etc) • 'Urban' fringe effects • Ability to make future land use decisions 	No comment	<ul style="list-style-type: none"> • Political map? • Local authority • Plans & investment • Rates income • Rates base 	<ul style="list-style-type: none"> • Land affordability • Land price • Land values • Land prices 	<ul style="list-style-type: none"> • Water use • Nutrient flows & cycles 	<ul style="list-style-type: none"> • Communication with nature • Outdoor lifestyle • Accessibility (eg, to rural streams) 	<ul style="list-style-type: none"> • Land cover • Impervious surfaces • Biodiversity • Water • Soil • Soil resource • Air quality • Biodiversity - Terrestrial • Freshwater • Water quality • Vegetation • Diversity 	<ul style="list-style-type: none"> • Service demand • Services • Service infrastructure • Traffic intensity • Traffic 	

Behaviour over Time (BOT)

Figure 1: Land Fragmentation

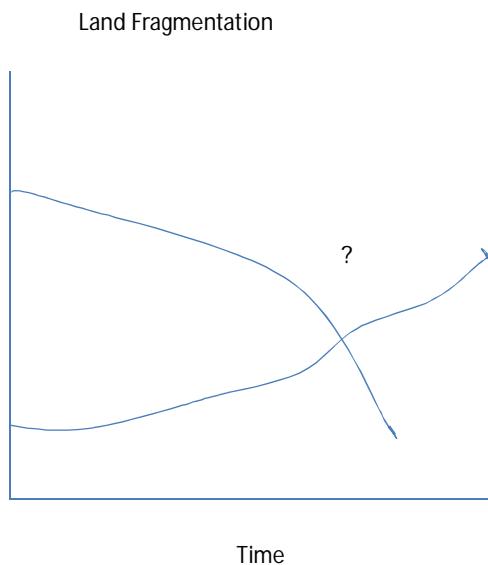


Figure 2: Urban Rural Population Demographic Change

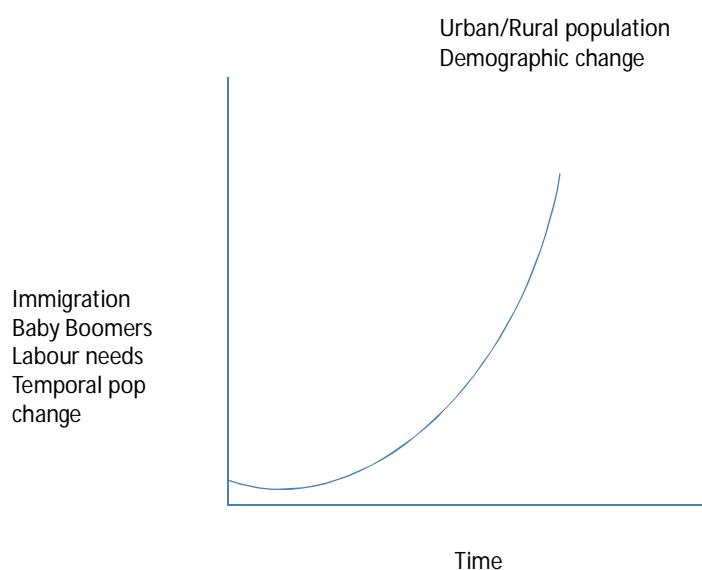


Figure 3: Social Status

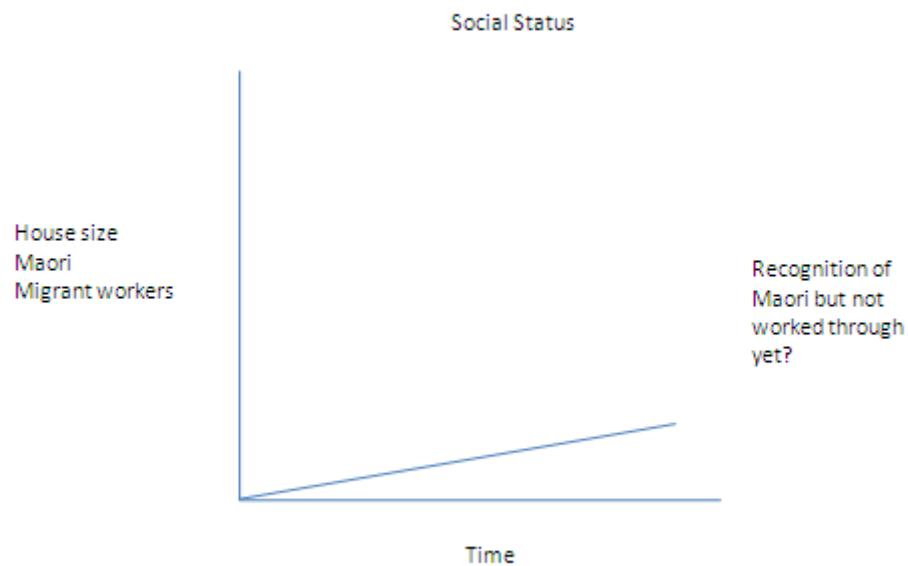


Figure 4: Aesthetics



Figure 5: Land Use Planning

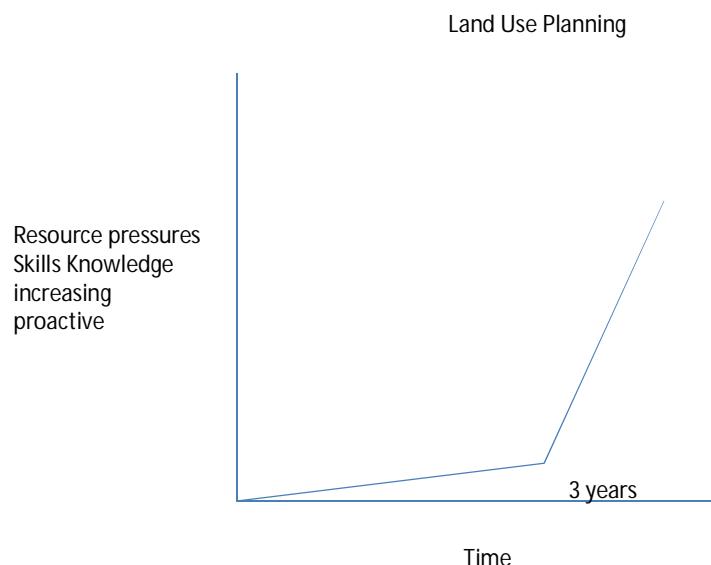


Figure 6: Land Values

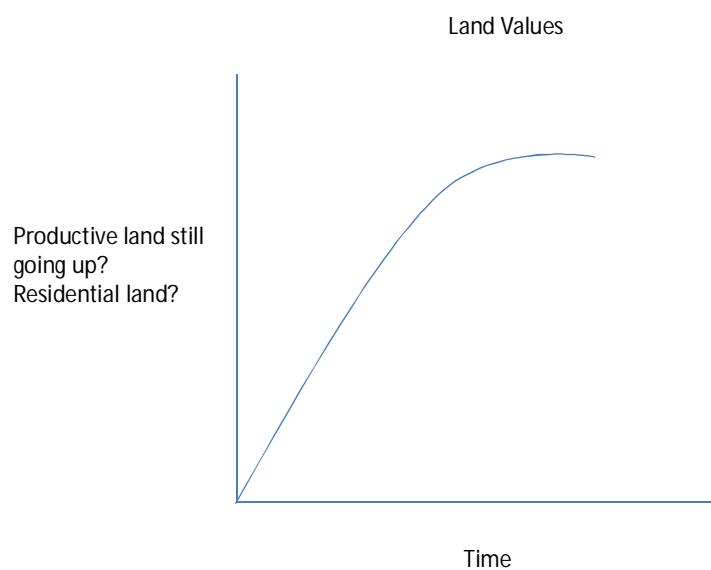


Figure 7: Information Technology

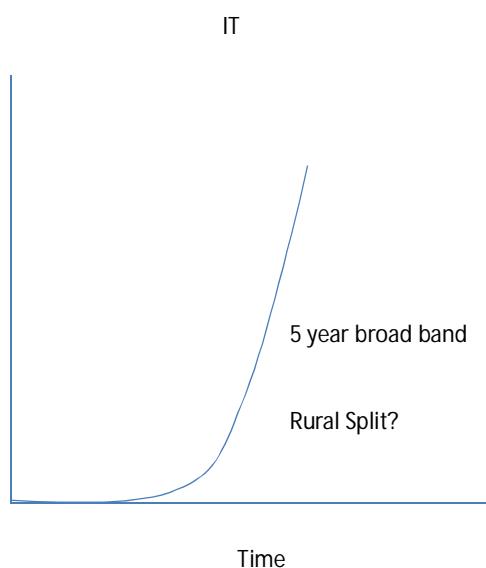


Figure 8: Size of Land Parcel

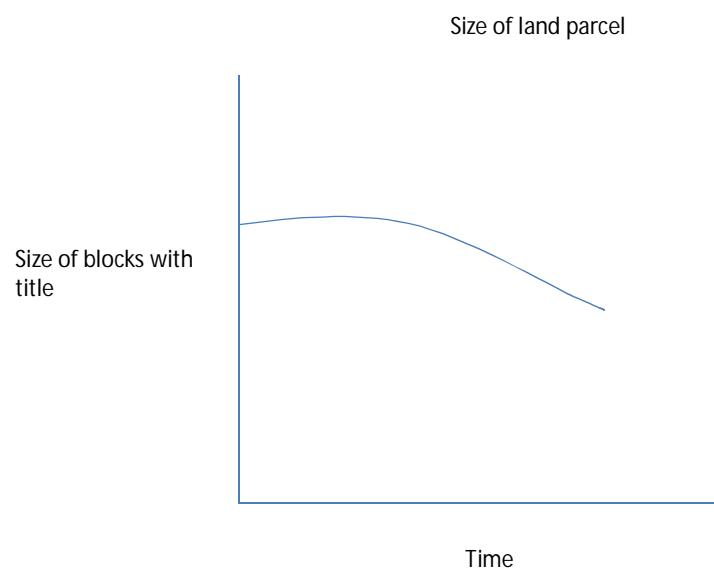


Figure 9: Landscape Measures

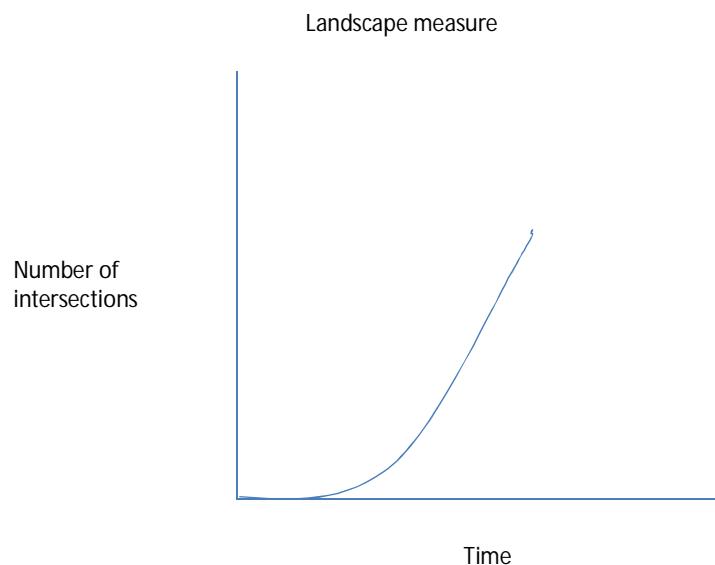


Figure 10: Intensity of Use

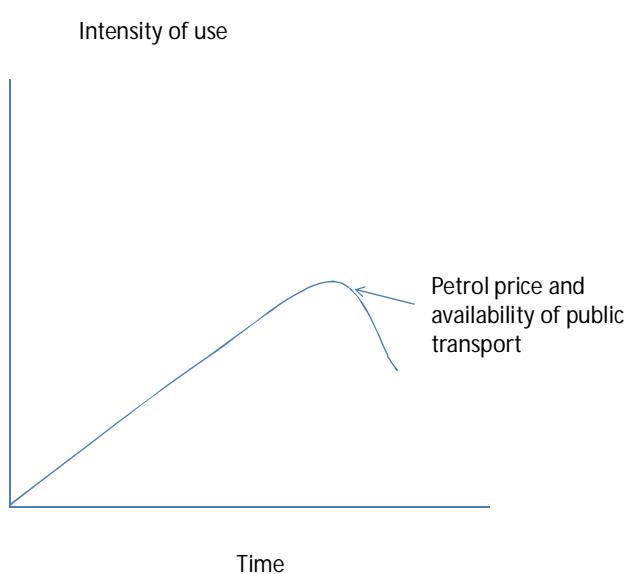


Table 4: Insights gained through development of Behaviour over time trends for variables associated with land fragmentation

<ul style="list-style-type: none"> Contextual circumstances of driver effects The range of drivers Difficulty of ascertaining driver characteristics over time Complexity <ul style="list-style-type: none"> - location - population We don't have a lot of data Similarity between cause and effects 	<ul style="list-style-type: none"> Strong influence of WASPy 40-50-ish worldview – more voices Land fragmentation: method displayed positive and negative Fragmentation is not a single entity Driven by small sample of population Local impacts 	<ul style="list-style-type: none"> Fragmentation <ul style="list-style-type: none"> - A lot of levers available to manage issue Land fragmentation wide range of drivers and effects Unexpected flow on effects Complex issue Value laden 	<ul style="list-style-type: none"> Complexity richness of issue Fragmentation indicates social and economic change Centrality of land use planning and control White middle class influences probably predominate <u>Own work:</u> <ul style="list-style-type: none"> - health impacts from growth and shrinkage "Minor" issues may be overlooked
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Table 5: Insights gained from undertaking the process

<ul style="list-style-type: none"> Trend analysis – what scale? Process expands thinking + conceptualisation Context could be more focused Still unsure of end purpose Small group productive Small ground 6 to 8 would work Gets everything on the table <u>Process:</u> identifies less obvious issues Process helps issue identification and clarification Affinity diagram methodology Advantage group ownership Advantage systematic way of organising ideas about issues 	<ul style="list-style-type: none"> Process easier because of similar participants Process limited by similar participants Value of several brains working together Already highlighting mapping and inter-relationship of issues Good way of exploring an issue Iterative, reflective 	<ul style="list-style-type: none"> Drivers ↓ Measurers ↓ Sticky notes People are "on the same page" Shared understanding Lesson: Implications of definitions of terms Lesson: caution about generalising: spatial and cultural differences 	<ul style="list-style-type: none"> Measurers ↓ Indicators ↓ Composite Indicators Recurring theme Willingness to listen + understand = common ground Process needs more time More time All the material Connection between Objective 1 and Objective 2 Use in work? Yes
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Commentary

The discussions that occurred as the BOT graphs were produced highlighted a number of insights (table 4). A consistent insight was the complexity of the situation and the lack of information held by the group participants to allow the development of the BOT graphs. There was a concern that the BOT's reflected the world view of the participants and that this was too narrow. The richness of the issue was acknowledged with a greater understanding occurring about the interrelationship between economic social and environmental variables and that there is no one overriding judgement on the cause of the impact of land fragmentation. A couple of key points emerged, one being the influence of only a small sample of the greater Waikato population and the central role of land use planning and control.

We were only able to cover two thirds of what was hoped for in the workshop. We did not progress to development of the conceptual model using a causal loop methodology (Maani & Cavaghan, 2007).

References

1. O'Connor, M. (1999) "Dialogue and Debate in a Post-Normal Practice of Science: A Reflection", *Futures*, 31, pp.671-687.
2. O'Connor, M. (2004) The KerBabel Indicator Dialogue box: Geeric design specifications for the "Indicator Dialogue Box" version 3, Rapport de Recherche du C3ED, Universite de Versailles St Quentin-en –yvelines, Guyancourt, 50pp, December.
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4. Maani, K. & R. Cavaha, 2007 Systems thinking , System Dynamics: Managing Change and Complexity second edition. Pearson Education, New Zealand.

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