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The role of communities in post-disaster recovery plan

An examination of the role of the small community of Diamond Habrbour

Zero Waste to Landfill

An unacklowledged Supermegaproject

Planning and the politics of street naming in Christchurch, New Zealand

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EDITORIAL

It is as much with great relief as with great pleasure that we bring you Volume 5 of the Lincoln Planning Review.

It is becoming something of a cracked record, but the legacy of the Canterbury seismic events of the last three years continue to haunt us. However, thanks to the diligent work of our team of student volunteers, ably led by Ange van der Laan and Roché Mahon, we have overcome heavier than normal pressures on staff time and facilities, software glitches, staff and student turnover and the many pressures on student time. To achieve this, we made the decision in mid-year to combine issues 1 and 2 of this volume so that we can get back to our original publishing routine of a Volume each calendar year.

This issue bears the imprint of the 'quakes, with several articles and conference reports related to disaster risk reduction and recovery experiences. In particular, Su Vallance and Robert Love's examination of the role of the small community of Diamond Harbour in recovery planning provides both theoretical insight and practical comment and Simon Lambert reflects on indigenous planning in the disaster risk and recovery context. Other articles represent a return to more general planning issues with Jack Christensen critically reviewing the concept of compact cities and Robert Krausz's equally international examination of the problems of 'unacknowledged supermegaprojects' such as ambitious 'Zero-Waste' programmes. Roy Montgomery's thought provoking historical exploration of the names of streets in Aranui combines both planning scholarship and disaster recovery, while Phil Holland's auto-ethnographic study of the social unsustainability of dairy farming in New Zealand challenges key assumptions underpinning the rationale of intensified dairying policies.

There are also our usual updates on former students, significant conferences and staff profiles, this time featuring recently retired Ian Spellerberg and the retiring Ton Buhrs, as well as an interview with Crile Doscher. Finally, *Planning Pains* provides the results of a survey on the value of NZPI membership in the private sector which may surprise many.

We look forward to bringing you many new peer reviewed articles and information in 2014!

Hamish G. Rennie
Editor-in-Chief

Lincoln Planning Review, 5(1-2) (2013) 3-9

The role of communities in post-disaster recovery planning: A Diamond Harbour case study

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ABSTRACT

Though there is strong agreement in the literature that community participation in disaster recovery is crucial, there is a lack of consensus over what might constitute a model of disaster recovery 'best practice' of community engagement. This paper contributes to an enhanced understanding of community engagement in disaster recovery by, first, drawing on 'peacetime' participation literature and secondly, illustrating a case study of post-disaster community-led planning in Diamond Harbour. We argue that roles for community groups vary, but that some communities would rather have influence than decision-making ability, and that this influence can take a number of forms. Though peacetime participation typologies are useful, we suggest that there may be value in combining development studies with scholarship around disaster recovery to account for the suspension of formal modes of participation that often accompanies disasters.

INTRODUCTION

There is strong consensus in the disaster recovery literature that public participation is essential for a 'good' recovery (Chavan, Peralta, & Steins, 2007; Coles & Buckle, 2004; Norman, 2004; Philips, 2004; ; Spee, 2008; Vallance, 2011a; Ward et al. 2008) yet there remains a gap in our understanding of a disaster recovery 'best practice' of community engagement, and how it might be undertaken amidst the chaos and dysfunction that accompanies – and indeed *define*s - disaster. Too often, it is simply assumed that communities will be willing and able to participate in the recovery process, and that recovery authorities will welcome, encourage, and enable this participation (Coghlan, 2004; Norman, 2004; Philips, 2004; Vallance, 2011b), yet this not always the case. Indeed, a growing strand of literature documents the ways in which communities' post-disaster aspirations are deliberately denied through opaque decision-making pathways, the suspension of democratic rights, and local or state governments using post-disaster reconstruction as an opportunity to push through their own agendas (Klein, 2007; Gotham and Greenberg, 2008). In this context, it becomes all the more important that we better understand the challenges community groups face in facilitating their own recoveries, and the strategies that they adopt to overcome them. In attempting to promote a better appreciation of 'community-led planning', our research focussed on one motivated community group - the Stoddart Point Regeneration Ideas Group (SPRIG). SPRIG is a community network that was established post-earthquake in the coastal settlement of Diamond Harbour, and their efforts were triggered by the damage inflicted on the keystone building of Godley House (as depicted in Figure 1 below). Our research examined how this group developed 'plans' for the improvement of this site, and the recovery of the community more holistically, after the recent earthquakes in Canterbury.

1. 'COMMUNITY-LED' PLANNING AND DISASTER RECOVERY

Various theoretical frameworks exist that may be used to categorise a community's involvement in disasters. Whilst some of these, focussing on the disaster response phase (including rescue and relief), are well-developed, there is less scholarly information available around the public's role in longer-term recovery (including rebuilding and reconstruction). There is a paucity of research detailing communities' planning efforts and aspirations, or their engagement with formal state representatives; however, a great deal of work has been conducted on orthodox 'peacetime' models, including Arnstein's (1969) ladder of citizen participation, Pretty, Guijt, Thompson and Scoones' (1985) typology and the International Association of Participation 2's spectrum, with each documenting a continuum of engagement/participatory practices. These range from 'token' or 'passive' *informing* through consulting, involving and collaborating, to 'meaningful' or 'active' *empowering* (www.iap2.org) forms of participation where the agency agrees to implement the community's decisions. 'Community-led planning' arguably represents the most empowered form of participation where decisions are made by, and for, the people according to their aspirations. Though these provide useful guidelines, the post-disaster context does add a layer of complexity to these typologies, largely because normal state processes of engagement may be suspended (formally under a state of national emergency, or informally due to dysfunction); the platform on which elected officials gained their mandate may have become utterly irrelevant; or the new context may generate issues about which the state is largely oblivious. In this context, it may be more appropriate to draw on literature from 'development studies' of nascent democracies, where the state is assumed to be somewhat distant and/or preoccupied. This branch of scholarship is more concerned with models of informal, insurgent or transgressive planning in order to explain, for example, DIY urbanism, vigilantism, and grassroots movements.

Figure 1: Godley House, post-earthquake (Geoff Trotter)

Perhaps as a consequence of these additional factors, disaster scholarship has yet to comprehensively adopt and adapt orthodox participatory schema in a meaningful way, though the empirical evidence to do so is accruing: Davidson, Johnson, Lizarralde, Dikmen & Sliwinski (2007, p.100) compared four case studies exhibiting different types of 'active' community participation, from supplying the labour force at one extreme to taking an active role in decision-making and project management at the other. They found that having the opportunity to make meaningful choices led to more positive results. Unfortunately, the authors also noted that 'despite often-good intentions, this level of participation is rarely obtained and the [community's] capabilities are often significantly wasted' (2007, p. 100). Others talk about the relationship between the communities and recovery authorities in terms of social capital (Aldrich, 2011; Murphy, 2007; Lorenz, 2010; Pelling and High, 2005; and Vallance, 2011a and b). Hawkins and Maurer (2010), for example, found that bonding capital (based on close ties) was vital in terms of immediate support, but that bridging and linking social capital (between communities and government) was important for longer-term recovery and neighbourhood revitalization. The role of bridging and linking social capital post-disaster has been explored in terms of 'participative capacity' (Lorenz, 2011) which presents another lens through which community-led planning may be explored.

2. COMMUNITY INTELLIGENCE, CIVIC EXPERTISE AND MANDATE

In the aftermath of the Canterbury earthquakes, local, regional and central government (through the Canterbury Earthquake Recovery Authority) have all played a role in recovery. Although this combination of elected bodies may be regarded as the best representation of the wishes of 'the people' in a democracy (Arnstein, 1969), it may also be seen as a 'top down' approach that potentially marginalises parts of society and may leave communities disenfranchised (Coles & Buckle, 2004; Philips, 2004). The issue of adequate representation and mandate is particularly difficult post-disaster because processes designed to deal with incremental or rational modification are unable to cope with rapid, unpredictable and catastrophic change. Even the Civil Defence Emergency Management Act 2002, which has the aim of encouraging key stakeholders to work together and to develop the capabilities of communities to plan for themselves post-disaster (Norman, 2004), seemed unable to adequately legislate for civic involvement. The recent *Review of the Civil Defence Emergency Management Response to the 22 February Christchurch Earthquake* found that even during the response phase, community groups lacked an effective conduit to the Christchurch Response Centre (CRC) or held a recognised place within the Coordinated Incident Management System (CIMS). This effectively isolated most communities from decision-makers right from the beginning, and has arguably shaped the recovery as well. Though the Canterbury Earthquake Recovery Authority (CERA) is statutorily bound to promote public partipcation as part of the Canterbury Earthquake Recovery Act's purpose, the relationship between communities and decision-makers within CERA is unclear.

Another factor influencing the recovery is the geotechnical nature of the process which further excludes public participation. It has been argued that the public lacks the necessary geological expertise and that there is little room to accommodate community aspirations in the face of engineering, geotechnical and economic realities. This raises interesting questions about the role of 'community intelligence' in recovery processes, the communication that takes place between recovery agencies and the public, and the types of issues community networks seek to change or influence (Cuthill & Fien, 2005). It is particularly interesting to us given the literary consensus that community participation – at some level is cathartic, can help identify workable solutions; can be cost effective, can secure buy in and consumer confidence; can promote political stability (Olshansky, 2007; Chavcan et al.; Monday, 2002; Benight, 2004; Campanella, 2006; Kweit and Kweit, 2004); and be 'sustainable' in the sense that communities do not become dependent on external sources of funding for the recovery (Lawther, 2009). What is less clear is the type of participation that delivers these benefits.

If empowered communities with decision-making powers tend to facilitate recovery and deliver these benefits, further questions are raised about the mandate of community leaders' and their right to speak on behalf of 'the people'. One of the greatest challenges identified in the literature is getting the whole community – some members of which are likely traumatised by the event - to coordinate and communicate together (Becker, Kerr, & Saunders, 2006; Monday, 2002; Vallance, 2011b; Norman, 2004). Further, diverse communities may be dominated by particular groups, with strong ideals, and it may be hard for some members of the community to speak against this without fear of being ostracised (Shaw, 1997). A significant challenge for community-led planning is, therefore, the mandate under which it occurs in the absence of democratic or other recognised traditions.

The questions raised here, about community intelligence, mandate and type of participation that delivers significant benefits for the community were explored in the context of a particular case study. This paper revolves around lessons and insights derived from the Stoddart Point Regeneration Ideas Group – or SPRIG - vis-à-vis community led planning and associated challenges and opportunities. Our conclusions are based on observations and in-depth interviews with SPRIG members. The fieldwork was conducted mid- to late 2011, approximately one year after the first earthquake.[1]

[1] *A more detailed methodology is available in Love, R. (2012). Community led planning in post-disaster recovery: A.*

3. THE ROLE AND MANDATE OF THE COMMUNITY IN RECOVERY IN DIAMOND HARBOUR

Given New Zealand's 'peacetime' planning and regulatory framework, it was not seen as possible or ideal for the community to develop, design or formulate a comprehensive 'plan' as might be outlined in formal statutory documents. The SPRIG membership acknowledged early on that they had neither the skills nor the mandate to do so. Yet they still saw an important role in undertaking background work so that they could make a useful contribution to more official procedures that they assumed would follow at some later date. Our research suggested that, over time, SPRIG members decided that its role within the community and planning process was to act as a *facilitator of ideas* and *motivating force* that might encourage the community to participate in formal recovery plans. This was pointed out explicitly by the interviewees who told us:

"The main purpose is that it's about facilitating the processes of recovery and capturing and doing something useful with ideas. Moving them into reality some of them, but not in itself being a decision making body".

"It [SPRIG] *was created with the purpose of the need to do something to draw people back and make it a destination with lots of options for people to increase tourist numbers".*

"I think it is really important that in rejuvenating the community by new facilities and structures, but also businesses, and the social structure of the community, that there is grass roots participation".

Yet, as interviewee one pointed out, the group understood that the community should not be making all the decisions, as they are not the ones who have to implement or monitor the resultant plans.

In the end, the person who has to implement the plan is the council. The council owns all the infrastructure and services, and a bunch of private individuals are creating the plan... But the council runs them on behalf of the community…Councils also represent the views of groups such as businesses. And they look at all the views, so the approach they take is actually community planning that fits in with the councils systems, so they can actually implement it.

To overcome this tension, SPRIG adopted the role of facilitators and chose to create an 'ideas paper' by seeking contributions from the wider Diamond Harbour community. The first step in the process involved the local Community Board representative convening a meeting for the community to discuss the plans for the Godley House site. At that public meeting, a member of what was to become SPRIG noticed that there were a few passionate individuals in the crowd, and approached them after the meeting with the intention of capturing that energy. This led to the first community-led meeting where "Lots of thoughts and ideas were captured. Various people made their voices heard" (Interviewee one) and enough people from that initial meeting were interested in creating a group to manage the recovery of the Stoddart Point area. Since then, SPRIG have run their own local meetings, open to the public and advertised through the local paper. The group operates these meetings in an open forum format, with an agenda to keep on track. The relaxed attitude of the meetings has allowed for a fluid membership and input, described by interviewee three as an 'informal' setting "*that has allowed for the flexibility of people to come in for a bit and leave again".*

The ideas and suggestions captured at these meetings dealt with the future use of the Godley House site, and other concepts for the redevelopment of the Stoddart Point area. During the meetings, SPRIG gave itself the task of developing an 'ideas paper' titled *Getting to the Point* that will include some of the workable and desirable recovery options for the Stoddart Point area. The ideas paper was drafted out of all the possibilities presented, both at the initial public meeting called by the Community Board and

[1] *A dissertation submitted in partial fulfilment of the requirements for the Degree of Master of Applied Science at Lincoln University Diamond Harbour case study. A dissertation submitted in partial fulfilment of the requirements for the Degree of Master of Applied Science at Lincoln University*

through the group's ideas. The group intends to take this document to the local Community Association (the pre-existing Residents Association) for suggestions and approval, and thereafter back to the community for comment. The purpose behind this is to gauge support for certain ideas and to gather feedback. Once this process is complete, a document will be created and presented to the local authorities: "Then we would like the Christchurch City Council to prepare a detailed plan for redevelopment based on the outcomes of the community consultations held."

The group has purposely called the draft document an 'ideas paper', as they did not want to give the impression that they have created a formal plan, with some statutory backing, for the area. The purpose of the paper is to collate all of the different possibilities for the area and to encourage the public to debate what they want on the site. It was hoped that by leaving the process open, and giving it that title, the ideas paper would act as a 'spark' for the community. This aspiration is also highlighted in SPRIG's documentation:

This paper summarises the community's vision for the Godley House site in context of the whole of Stoddart Point. The overall purpose of this paper is to provide the community an articulated vision for their further input and comments, building from the consultation already undertaken. It is also intended to provide inspiration and a launching platform for the next step.

Key features of their consultation process included raising awareness of the Stoddart Point music festival (Figure 2); communicating through various media including pamphlets, mail drops, and developing a website; talking with locals they knew lived around the area; and the deliberate use of the term 'ideas paper' rather than 'plan'. Interviewees repeatedly made it clear that they were aware of the danger of becoming a group that was planning *with* the community to a group that tries to plan *for* the community.

4. DISCUSSION

Though the literature clearly indicates the importance of public participation in disaster recovery, 'peacetime' planning scholarship recognises a range of types of involvement/engagement and degrees of community empowerment. The issue addressed in this paper centres on the kinds of participation that might deliver the benefits indicated in the literature. Our results indicate that community members do not neccessarly want to have decision-making powers and that 'empowered' participation might take a number of different forms. In this case study, SPRIG wanted to have the abilty to *influence* planning processes, and its outcomes, but did not want decision-making authority. SPRIG members therefore walked a somewhat awkward path between understanding it was not their place to hold power or make decisions but, at the same time, needed some kind of legitimacy in order to act as a credible contributor to more official processes. They knew they lacked the mandate to act as decision-makers but were keen to take on a number of other roles including building awareness; bringing the community together and resolving some early conflicts; gathering information about the area, and becoming a 'community' with capability and capacity to become engaged in formal processes. They become empowered through recognition that their contribution was meaningful. SPRIG members understood the value of community input and their possession of specialised local knowledge including their ability to identify errors in plans that recovery agencies may otherwise miss. They also believed that the community are the most important stakeholders as they have to live with the consequences of the plan. Including community groups from the outset, they maintained, could avoid the development of plans that were controversial, inadequate, or that missed unique opportunities.

Figure 2: SPRIG's Music Festival at Stoddart Point

Though there is a great deal of literature devoted to the benefits of 'good' community engagement and consensus as to its benefits, very little work exists around the steps that could be taken by communities to facilitate and foster the process. Our research suggests that before any 'consultation' or 'engagement' occurs, it is helpful if a group of people (re)form a community of practice to discuss what a satisfactory process would entail, and what the relationship between community groups and recovery agencies should look like. Recovery authorities can actively encourage, facilitate (by providing meeting spaces and other resources) and even fund such groups if such mobilisation is seen as desirable. SPRIG members believed that they would best operate as a liaison between the community and the local authorities, primarily to enable a swift and easy transfer of information between the two parties. This does raise some interesting dilemmas for the recovery agencies and/or local government officials given they have limited understanding of how the community's ideas were generated, facilitated or captured. Nonetheless, when triangulated with other, more orthodox means of consultation, involvement or engagement, the community intelligence generated by such groups can be extremely useful.

5. CONCLUSION

Many of the suggestions about the benefits, difficulties and challenges associated with different types of public participation, involvement and engagement literature are supported by this case study. Further, our research suggests great merit in harvesting the 'peacetime' participation literature for the purposes of developing a 'best practice' around community engagement in disaster recovery because such literature emphasises there is a spectrum of possible approaches, depending on the overall goal. Such nuance is often missing from disaster scholarship community engagement models. Conversely, despite their value, we cannot simply apply 'peacetime' engagement models to the disaster recovery context because, critically, both 'the community' and 'the state' may be dysfunctional. Indeed, this is almost certainly the case given the nature of disasters.

The role of community groups in recovery planning needs to be evaluated in this light; in SPRIG's case it was assumed that formal processes of engagement would eventually be restored and they developed their recovery strategy on this basis. They therefore saw their role as helping the community become an entity capable of being engaged more formally, generating interest in the area and its possibilities, keeping civic interest alive until more formal processes of engagement were restored, and facilitating good working relations between the local council and the local community. Importantly, SPRIG demonstrates that communities do not always want to possess decision making *authority*, but they do want to be able to influence the process in a meaningful way. Members were aware that they lacked an electoral mandate to make decisions, but sought to complement, enhance and invigorate more official channels. They sought influence rather than power, and wished to be recognised by the local authorities as a legitimate and valued part of the official recovery effort for the Stoddart Point area. A process of triangulation with orthodox consultation and engagement strategies might be a useful way of resolving the tension between using community intelligence and accepting their unusual mandate.

On a related point, our research also highlights the value of fostering 'community competence' or 'civic expertise' as both a preparedness and risk reduction strategy,

particularly as they relate to resilience as a function of an entity's ability to bounce back, or even thrive, in the face of change. The SPRIG case study illustrates some of the skills and capabilities this community needed to achieve their goal, and it is useful to reflect on the various ways critical competencies - including conflict and data management, communication, leadership, fundraising, and so on - might be incorporated into more standard, peacetime activities.

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Zero Waste to Landfill: an Unacknowledged Supermegaproject

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ABSTRACT

Zero Waste is a global movement focused on replacing linear resource-to-waste systems with circular systems found elsewhere in nature, and Zero Waste to Landfill (ZWtL) is a specific interpretation implying the total elimination of residual disposal. Local governments worldwide have declared ZWtL goals with specific deadlines; however, to date none of these initiatives have proven successful. A grounded case study of ZWtL campaigns was conducted to investigate this chronic failure. The results indicate that ZWtL is an unacknowledged supermegaproject: requiring extremely deep and unprecedented change and sacrifice across all sectors, yet destined for failure because proponents fail to recognize the scope of the task and plan accordingly. Strategies for addressing waste upstream are critically absent, with insufficient downstream measures such as recycling the prevailing norm – reinforced by a consistent preference for technical solutions over fundamental behavior change.

THE CONTEMPORARY WASTE PROBLEM

Modern human society is based predominantly on linear systems of manufacturing,[1] with raw materials converted into mass-produced items largely designed for rapid obsolescence and disposability,[2] and made increasingly from problematic materials which defy efforts at resource recovery,[3] all of which fosters a dependence on developing new landfill sites for residual waste disposal.

Municipal solid waste generation is estimated to have been 1.2 kg/person/day worldwide in 2010, and is predicted to rise to 1.4 kg/person/day by 2025. Taking population increase into account, total generation is expected to increase from 1.3 to 2.2 billion tonnes/year over this period.[4] This is equivalent to a global output of 40 tonnes *per second* in 2010, expected to grow to 70 tonnes per second by 2025.

The environmental impacts of waste include the contamination of air, soil, and water by a myriad of different human-synthesized chemicals,[5] with toxic impacts on health.[6] Landfilling of waste is an insufficient solution, as partial decomposition in the ground leaches concentrated volumes of these substances into surrounding soil and water.[7] Meanwhile, the alternative option of waste incineration produces toxic particulates which spread throughout the atmosphere and fall onto land and water; and in any case incineration is not a complete alternative to landfilling as it produces toxic ash residue which requires disposal.[8]

** We wish to thank all who offered their time and energy in pointing the way to documents or provide interviews. This includes people at the ACT, Christchurch City Council and Environment Canterbury, City of Toronto and Province of Ontario, SF Environment and the State of California, and many independent sources as well. The piecing together of this story of zero waste to landfill would not have been possible without their efforts.*

[1]. Fricker 2003; Watson 2009.
[2]. van der Werf and Cant 2012.
[3]. Hoornweg and Bhada-Tata 2012.
[4]. Hoornweg and Bhada-Tata 2012.
[5]. Danilov-Danil'yan, Losev, and Reyf 2009; Meadows, Randers, and Meadows 2005; Rios, Moore, and Jones 2007.
[6]. Carroll 2008; Meadows et al. 2005; Puckett et al. 2002.
[7]. Murray 2002; Watson 2009.
[8]. Danilov-Danil'yan et al. 2009.

The widespread manufacture of products from poorly degradable synthetic materials such as plastics, with these materials forming a significant portion of what is ultimately landfilled,[9] means that the rate of waste generation far exceeds the rate at which resources can be converted back to their primary forms. The net result is that landfilling represents an unsustainable steady loss of finite land to waste disposal. In some places available land for new landfills has already run out, leading to immediate crisis and offloading of waste via exports to neighbouring or distant locations.[10]

ZERO WASTE, AND ZERO WASTE TO LANDFILL IN PARTICULAR

In response to the long-term unfeasibility of linear resource-to-waste systems, Zero Waste has arisen as an alternative concept, based upon circular resource-to-waste-to-resource systems such as those found throughout nature[11] and evolving from grassroots ideology to become part of official waste policy in local governments around the world.

Zero Waste initiatives span a wide variety of intended meanings, ranging from merely aspirational goals of general waste reduction without specific targets, to the most ambitious goal of Zero Waste to Landfill – 100% elimination of landfilling, with firm deadlines for achieving this. For this study, ZWtL with a specific deadline is of particular interest, as it is only this most extremely ambitious target that implies a paradigm shift from linear to circular systems.

The original research plan was to conduct an investigation of ZWtL initiatives at the local government level, with the aim to identify key factors which drive success versus failure. However, the initial research into such initiatives around the world revealed a significant finding: that there appears to be no exemplar anywhere of successful ZWtL attainment, with failure or looming failure noted in every single observed campaign.

In response, the focus of this study was shifted to asking the question of why ZWtL initiatives are consistently failing, and the follow-up question of what would have to happen in order to turn this failure into success.

METHODOLOGY FOR EVALUATING ZERO WASTE TO LANDFILL INITIATIVES

Grounded Approach to Theory

The chronic failure of ZWtL initiatives is a relatively recent phenomenon, with the earliest deadlines set for around 2010. As such, the literature contains a dearth of relevant material, presenting an opportunity for this research to fill a void in the discourse, but also posing a challenge with respect to identifying an obvious theoretical framework upon which to build the study.

In response to the relative newness of the topic of ZWtL failure, a grounded approach to theory was adopted, in which the initial investigation of ZWtL initiatives was conducted without any focus on pre-selected theoretical models.[12] Instead, the initial data collected was examined to identify emergent recurring patterns, and the literature was then canvassed for appropriate theory, with these patterns in mind. Theoretical models were applied to the data, until an overall framework was developed which best addressed the research questions. New questions which emerged sent the research back to examining ZWtL initiatives as well as the literature, resulting in a characteristically iterative process[13] that ran until a refined theoretical framework was established. Where existing theory left a residual gap, new theory was developed to address it, with the overall framework then tested against the data in a final addressing of the research questions.

Case Studies

With the initial finding that no ZWtL success exemplars were evident anywhere, the study population consists of *all* such initiatives

[9]. Barnes, Galgani, Thompson, and Barlaz 2009.
[10]. Brown 2008.
[11]. Fricker 2003; Murray 2002; Watson 2009.
[12]. As per, for example, Glaser and Holton 2004.
[13]. See, for example, Corbin and Strauss 1990; Gurd 2008.

worldwide – including not only already-failed/abandoned campaigns but ongoing ones as well, as the latter appear to be headed for similar failure/abandonment. The large, ever-changing, and globally distributed overall set of ZWtL initiatives precluded census-type coverage of all of them, while at the other extreme a single case study was deemed to be insufficient to capture the variation across all campaigns, with respect to factors such as geography, government type, and position on the timeline between launch and deadline or abandonment.

As ZWtL initiatives cannot be studied in a controlled, experimental manner, a case study approach was selected,[14] based on non-random selection of cases aiming for an appropriately diverse set.[15] Therefore, a sample size of three to five initiatives was targeted, to enhance diversity within study constraints. Random selection of cases was ruled out, as it carried the inherent risk of missing out on cases which possessed unique characteristics of particular interest, and also because this feasible range of sample size was an order of magnitude smaller than the minimum seventy or so required to offer statistically significant measurements.[16]

The following four case studies were selected:

- Australian Capital Territory (ACT) – Canberra and surrounds, Australia:
  - First local government ZWtL initiative in the world, launched in 1996 with 2010 deadline.[17]
  - ACT is a dual city/territory, governing both the city of Canberra and the surrounding capital district of Australia.[18]
  - Initiative was abandoned in 2009, one year ahead of the target date.[19]
- Christchurch, New Zealand:
  - Launched in 1998 with 2020 deadline.[20]
  - Local government initiative operated alongside New Zealand's aspirational-only campaign,[21] the first national-level Zero Waste initiative in the world.
  - Local initiative was largely abandoned after only three years in 2001,[22] and eventually dropped entirely in 2006,[23] followed by the abandonment of the nationwide campaign in 2010.[24]
- Toronto, Canada:
  - Launched in 2001 with 2010 deadline.[25]
  - Potential landfill availability crisis was a significant driver, with the last local site about to fill up, and with shipments of waste across the border to the USA facing increased public and political opposition.[26]
  - Initiative was abandoned in 2007, after a new landfill site was secured within Canada.[27]
- San Francisco, USA:
  - Launched in 2003 with 2020 deadline.[28]
  - ZWtL initiative is highly publicized by the City, particularly the percent diversion from landfill rate which is reported to be the highest in the USA.[29]
  - Initiative is ongoing.[30]

[14]. As per Rowley 2002.
[15]. See, for example, Flyvbjerg 2006.
[16]. See, for example, Bartlett, Kotrlik, and Higgins 2001.
[17]. Australian Capital Territory 1996.
[18]. ACT Government 2013.
[19]. "Rubbish Target Purely Aspirational: Stanhope". Australian Broadcasting Corporation, January 22, 2009. Available at http://www.abc.net.au/news/2009-01-21/rubbish-target-purely-aspirational-stanhope/273440.
[20]. Christchurch City Council 1998.
[21]. New Zealand Ministry for the Environment 2002.
[22]. Christchurch Press, September 8, 2001, WE6.
[23]. Christchurch City Council 2006.
[24]. New Zealand Ministry for the Environment 2010.
[25]. City of Toronto 2001.
[26]. Flynn 2011.
[27]. City of Toronto 2007b.
[28]. SF Environment 2003.
[29]. Lehmann 2011.
[30]. SF Environment 2013b.

Combination of Qualitative and Quantitative Methods

This study employed a mixture of qualitative analysis of policy implementation and stakeholder perspectives, as well as quantitative analysis of reported waste generation over time.

Analysis of policy implementation consisted of a chronological study of decisions and actions, beginning with events preceding the declaration of the ZWtL goal, and leading up to the initiative failure/abandonment and/or beyond to the present day. Data collected for this consisted mainly of a combination of official government documentation, responses to queries from government staff and elected officials, and site visits to each location. Relevant discourse from the literature provided additional information for each case.

Stakeholder perspectives were obtained via interviews, combining face-to-face meetings conducted during site visits, telephone conversations and email exchanges as necessary. Stakeholders were divided into three major groups: *Government*, including elected officials and staff; *Industry*, including waste producers and handlers; and the *Public*, including individuals and grassroots organizations. In keeping with the grounded approach of this study, interviews were mostly in a one-to-one format, with open-ended questions aimed at eliciting an enhanced and triangulated understanding of the history, people, and relevant factors surrounding each initiative. Quantitative or scale-type questions were not included in the interviews, as the number of available people in each stakeholder group was as low as just one or two in some cases, giving very small samples that would preclude meaningful statistical analysis. Rather, the interviews served the important purpose of shedding light on aspects of each initiative that were not revealed by policy documentation or the literature. This function served to drive the iterative, constant comparison process of the overall grounded approach to the study.

It was initially intended that this study would include a quantitative analysis comparing each case study's waste stream profile, broken down into constituent components, with specific strategies that targeted each component. However, none of the proponents could provide a comprehensive set of strategies targeting specific components of their waste streams. From a methodological standpoint, this meant that it was not possible to conduct the intended waste stream component–strategy articulation analysis, for any of the cases.

More importantly, though, this situation represents in itself a remarkable finding: the existence of a *planning void* in each of the initiatives, which as discussed later is a significant element in the overall phenomenon of ZWtL initiative failure.

Another limitation to quantitative analysis is the incomplete and inconsistent nature of waste data, as collected and reported by local governments.[31] The waste stream for each location is not fully measured, particularly where waste is handled by private contractors who, for commercial sensitivity reasons, may not be required to provide complete data. Where data is recorded or estimated, it is difficult to make comparisons across cases because different governments use different classifications for waste types, and what might be counted as landfilled waste in one jurisdiction might be recorded as diverted waste in another, due to subjective crediting such as for the use of waste as alternative daily cover in disposal sites.[32]

Despite these limitations, the year-to-year data available, of total waste generation broken down into diverted and landfilled amounts, provided a useful cursory picture of overall trends, which informed the bigger picture of chronic ZWtL initiative failure, and in accordance with the grounded approach directed the research to further qualitative investigation.

RESULTS

Waste Generation Trends

Table 1 gives a summary for each case study initiative, including year of launch, deadline, and year of abandonment and replacement

[31]. See, for example, Hoornweg and Bhada-Tata 2012; Murray 2002.

[32]. See, for example, California Department of Resources, Recycling and Recovery 2012.

goal/deadline, where applicable. The table also shows per capita waste to landfill and percent diversion statistics, at the time of launch, abandonment (where applicable), and most recently reported year.

	Canberra	Christchurch	Toronto	San Francisco
Year Launched	1996	1998	2001	2003
Target Year	2010	2020	2010	2020
Per Capita Waste to Landfill, Year of Launch (kg/person/year)	820	740 (1999 – earliest available data)	740	820
Percent Diversion, Year of Launch	42%	21% (1999 – earliest available data)	19%	60%
Year Abandoned	2009	2001	2007	Ongoing
Per Capita Waste to Landfill, Year Abandoned (kg/person/year)	610	700	640	N/A
Percent Diversion, Year Abandoned	73%	21%	25%	N/A
Per Capita Waste to Landfill, Most Recent Year (kg/person/year)	740 (2011)	450 (2010 – last year pre-earthquake)	560 (2011)	500 (2010)
Percent Diversion, Most Recent Year	75% (2011)	40% (2010 – last year pre-earthquake)	27% (2011)	77% (2010)
Replacement Goal	Zero Waste to Landfill	320 kg/person/year Waste to Landfill	70% Diversion	N/A
Target Year	None	2020	2010 (currently under review)	N/A

Table 1: Zero Waste to Landfill Initiative Results Across Cases.

The data in Table 1 shows considerable variation across cases, with respect to the length of time between initiative launch and target year, ranging from nine years for Toronto to twenty-two years for Christchurch. Notably, Christchurch's initiative was the shortest-lived as it was abandoned after only three years, while Canberra's lasted the longest at thirteen years before being dropped with failure looming just one year ahead of its deadline; San Francisco's initiative, meanwhile, is ongoing and ten years into its seventeen-year scheduled timeline. Another area of distinct variation across cases is the percent diversion rate: at initiative launch this ranges from 19 percent for Toronto to 60 percent for San Francisco; at initiative abandonment it ranges from Christchurch's 21 percent to Canberra's 73 percent; and the most recent rates vary from Toronto's 27 percent to San Francisco's 77 percent.

With respect to per capita waste to landfill, however, the data is quite similar across all cases, ranging from 740 kg/person/year (Christchurch and Toronto) to 820 kg/person/year (Canberra and San Francisco) at the time of initiative launch, and from 610 kg/person/year (Canberra) to 700 kg/person/year (Christchurch) at the time of abandonment. Also in all cases, there has been an overall decrease in this rate between launch and abandonment – with a similar downward trend in San Francisco between its campaign's beginning and most recent results.

Figures 1-4 show waste data for each of the case study locations, from around the start of their respective ZWtL initiatives, until the most recent available year. Total per capita waste generation is shown, along with the breakdown into diverted (from landfill) and landfilled amounts.

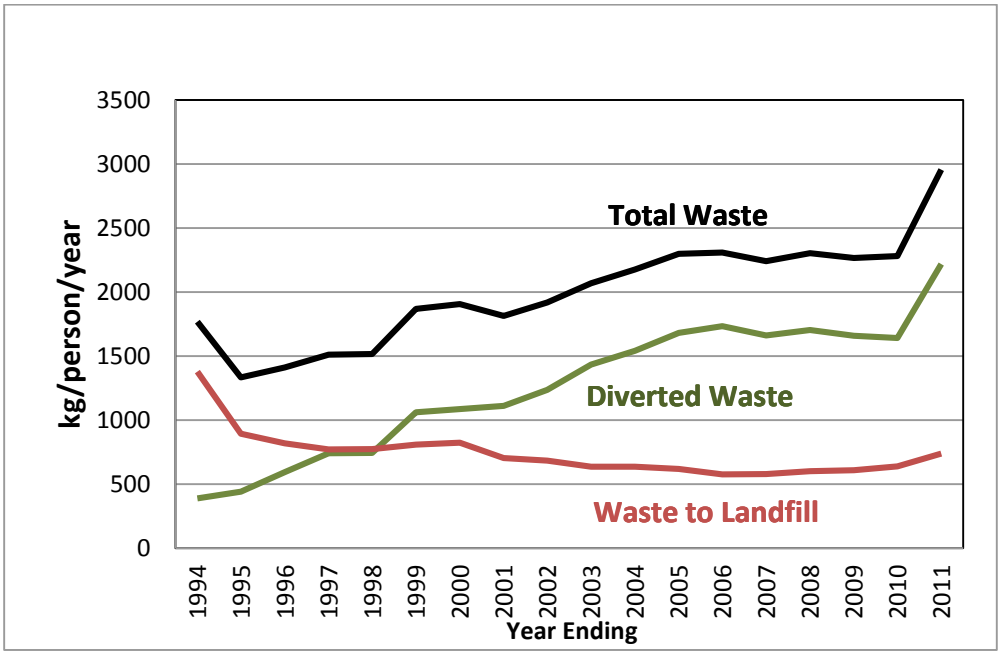

Figure 1: Waste Generation Trends in the ACT.

Sources: ACT Government Chief Minister and Cabinet 2011; ACT Government Territory and Municipal Services 2013.

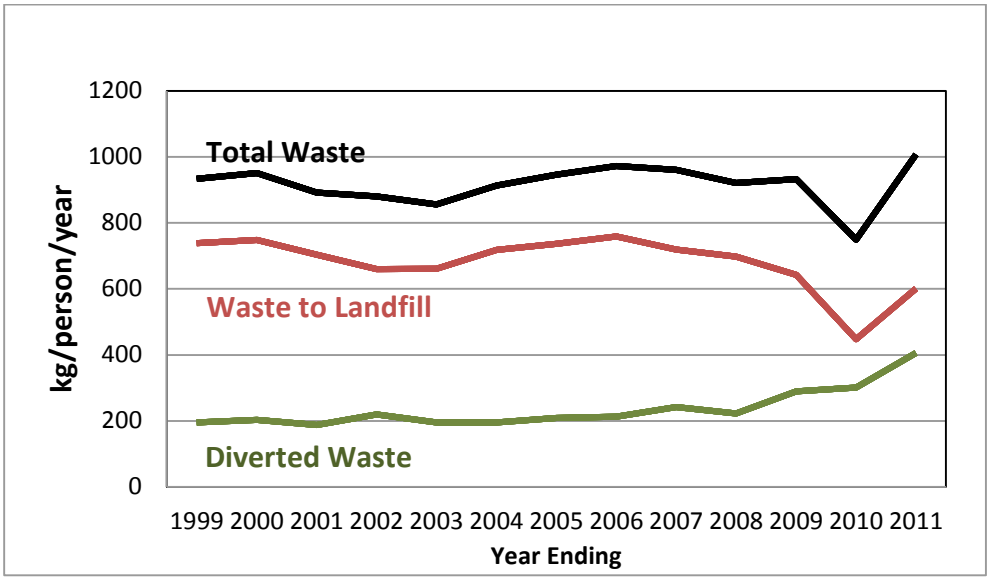

Figure 2: Waste Generation Trends in Christchurch (Note the sharp increase in waste amounts subsequent to first large earthquake event in 2010)

.Sources: Environment Canterbury 2008, 2012a,b.

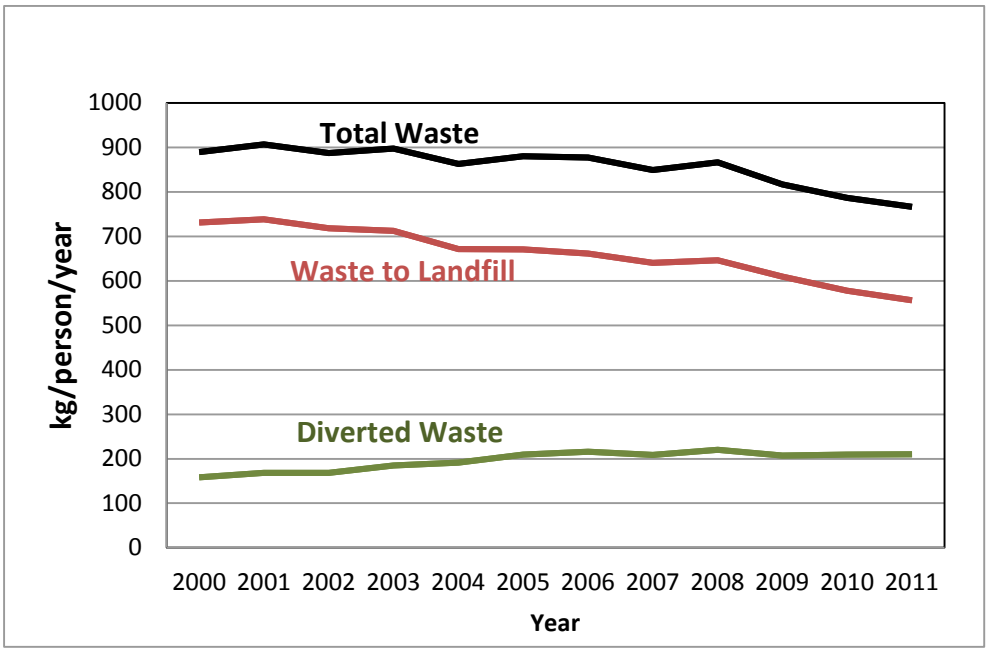

Figure 3: Waste Generation Trends in Toronto.

Sources: City of Toronto 2012a,b, 2013; Ontario Waste Management Association 2012.

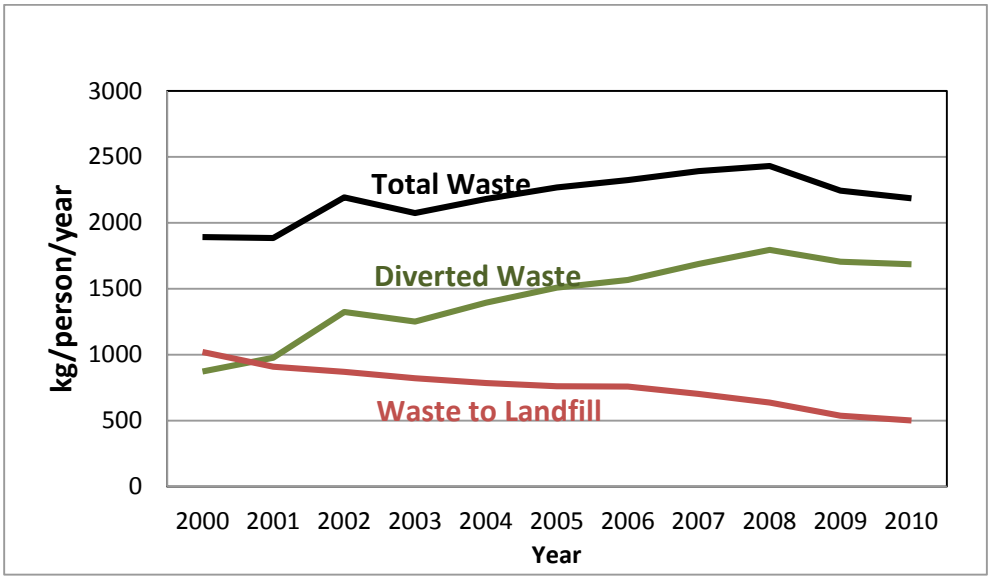

Figure 4: Waste Generation Trends in San Francisco.

Sources: California Department of Resources, Recycling and Recovery 2012; SF Environment 2012a; United States Census Bureau 2012.

In all four cities, the reported per capita rate of diverted waste has steadily increased over time, reflecting increases in the percent diversion rate, with Toronto at the lower end increasing from 19 to 27 percent, and San Francisco at the higher end rising from 60 to 77 percent.

Meanwhile, all locations have reported decreases in per capita waste to landfill since the launch of their ZWtL initiatives; however, these decreases have been limited as a result of continued high levels of reported total per capita waste generation, particularly in Canberra and San Francisco where total waste has actually increased since the launch of their respective campaigns (see Figures 1 and 4, respectively).

Planning for Zero Waste to Landfill

Each case study's ZWtL initiative was articulated publicly,[33,34,35,36] and in clear and sometimes bold language, as with Toronto Mayor Mel Lastman's declaration announcement:

"We need a plan which everyone can buy into so that by 2010 all our waste will be recycled, reused or composted. Task Force 2010 must find a made-in-Toronto solution that demonstrates leadership in waste diversion strategies and new solutions for the 21st century that move beyond the landfilling of garbage."[37]

These statements of ZWtL goal adoption included references to the notion that planning of some sort would be necessary to achieve 100 percent diversion, such as San Francisco's directive that their staff "develop policies and programs to achieve zero waste, including increasing producer and consumer responsibility".[38]

Each of the ZWtL initiative proponents, in launching their campaigns, made some reference to possible upstream 'top-of-pipe' measures for waste elimination, such as producer/consumer behavior change, government legislation, or research and development into materials.[39] However, in none of the cases was there an accompanying comprehensive plan which included details of how such strategies would be used to achieve the 100 percent diversion goal. Furthermore, there is scant evidence of subsequent concrete planning which was developed to implement these ideas. Accordingly, waste elimination measures were rarely implemented to any meaningful extent, in any of the case study locations. Instead, the years which followed the launch of the ZWtL initiatives generally saw little more than the implementation of downstream 'end-of-pipe' strategies, such as expanded recycling or the introduction of food composting programs.[40]

In the three case studies which have already run their course, this situation eventually led to warnings from within their local governments that the campaigns were not on track for success, signalling the likelihood of failure which eventually led to abandonment.

In Canberra, the ACT's Commissioner for Sustainability and the Environment released a report in 2000, four years after the No Waste by 2010 campaign was launched, in which concern was expressed that the initiative lacked comprehensive planning, and would likely fail without increased significant, combined, and well-structured support from government, businesses, and the public.[41] After these improvements did not eventuate, a subsequent report from a new Commissioner in 2007 included the opinion that it was unlikely that the ZWtL target was ever achievable, and a recommendation that the campaign be dropped in favor of a more realistic waste reduction goal.[42] By the following year, the ACT government had followed this advice and abandoned the initiative.[43]

When the City of Toronto, three years into its ZWtL campaign, reported on its success in meeting its first phase goal of 30 percent diversion, it also conceded that:

"it is unrealistic to believe we can recycle, reuse and compost our way to 100 percent diversion….The City will need to continue to explore new and emerging technologies that will allow us to manage the estimated 40 percent residual waste that will remain".[44]

33. Australian Capital Territory 1996, 1.
34. Christchurch City Council 1998, 2.
35. City of Toronto 2001, 1.
36. SF Environment 2003.
37. City of Toronto 2001, 1.
38. SF Environment 2003.
39. See Australian Capital Territory 1996, 12-13 and 18; Christchurch City Council 1998, 5-6; City of Toronto 2001, 4; SF Environment 2003.
40. See Australian Capital Territory 1996, 7 and 14-15; Christchurch City Council 1998, 3 and 7-9; City of Toronto 2001, 8-28; SF Environment 2003.
41. Office of the Commissioner for Sustainability and the Environment, ACT 2000.
42. Office of the Commissioner for Sustainability and the Environment, ACT 2007.
43. Australian Broadcasting Corporation 2009. Available at http://www.abc.net.au/news/2009-01-21/rubbish-target-purely-aspirational-stanhope/273440.
44. City of Toronto 2004a, 2.

Later that year, the City's New and Emerging Technologies, Policies and Practices Advisory Group released a report, in which they concluded that Toronto's 100 percent diversion goal was not achieveable, and instead a diversion rate of between 86 percent and 96 % could potentially be achieved via technological innovations.[45] In 2006 the City approved the purchase of a new landfill site within Ontario,[46] and by the following year the ZWtL goal was officially dropped, just six years after it was adopted.

Meanwhile, Christchurch City Council took only three years to abandon its ZWtL campaign, with the push for deserting the goal spearheaded by the same City Councillor who had previously championed its adoption.[47] Similar to the Toronto case, Christchurch's dropping of ZWtL coincided with its ongoing and eventually successful efforts to secure a new regional landfill site, in partnership with neighbouring councils and private waste contractors.[48]

San Francisco's ongoing ZWtL initiative, compared with the other three cases, has implemented a larger number of specific top-of-pipe measures, including green building standards,[49] environmentally preferable purchasing requirements[50], a bottled water ban[51] on city premises, and city-wide bans on styrofoam food ware[52] and plastic checkout bags[53]. The combined overall impact of these measures, however, represents only a partial addressing of the overall stream of residual waste, as reflected in the fact that around 500 kg/person/year is still going into landfill.

A notable example of the incompleteness of San Francisco's efforts to eliminate waste at its sources is the highly-publicized ban on plastic bags. Even after a recent revision increasing the scope of the original legislation, plastic bags are still permitted for bulk foods, to separate or protect sensitive items, to carry small hardware items, to carry prescription drugs, to keep delivered newspapers dry, and to carry or protect laundry or dry cleaning.[54] As well, plastic bags of many types continue to be available for consumer purchase. The net result is that in a city now widely renowned for its pioneering plastic bag ban[55], these items are still an ubiquitious part of the urban landscape.

A general observation which applies to all of the case study locations, based on site visits, interviews with stakeholders, and on the analysis of the policy decisions and actions which have taken place around their respective ZWtL initiatives, is that very little appears to have changed with respect to waste generation. Problematic items which defy attempts at diversion from landfill, such as food packaging, electronic devices, and a myriad of products designed for disposability, remain widespread and largely unaddressed, and the prevailing end-of-pipe measures such as recycling programs and resource recovery centres are simply not able to achieve results approaching zero residuals to landfill. Canberra, Christchurch, and Toronto abandoned their initiatives in the face of looming failure, and while San Francisco's campaign remains ongoing, the evidence points to a similar outcome unfolding there by the year 2020.

The sections which follow include a discussion of recurring patterns observed in ZWtL initiatives, and how they might explain how and why these campaigns are consistently failing.

THE COMMON TRAJECTORY OF OBSERVED ZERO WASTE TO LANDFILL INITIATIVES

A notable recurring observation across all of the case studies is the overall chronological progression that each campaign appears to follow from its launch onwards. This common trajectory is illustrated in Figure 5, and the sections which follow it examine key components of this trajectory, as they are illustrated by observations from the four case studies.

45. City of Toronto 2004b.
46. City of Toronto 2007a.
47. Christchurch City Council 2001.
48. See Perriam 2002.
49. San Francisco Board of Supervisors 2004.
50. San Francisco Board of Supervisors 2005.
51. SF Environment 2007.
52. San Francisco Board of Supervisors 2006.
53. San Francisco Board of Supervisors 2007; San Francisco Board of Supervisors 2012.
54. San Francisco Board of Supervisors 2012.
55. Romer 2007.

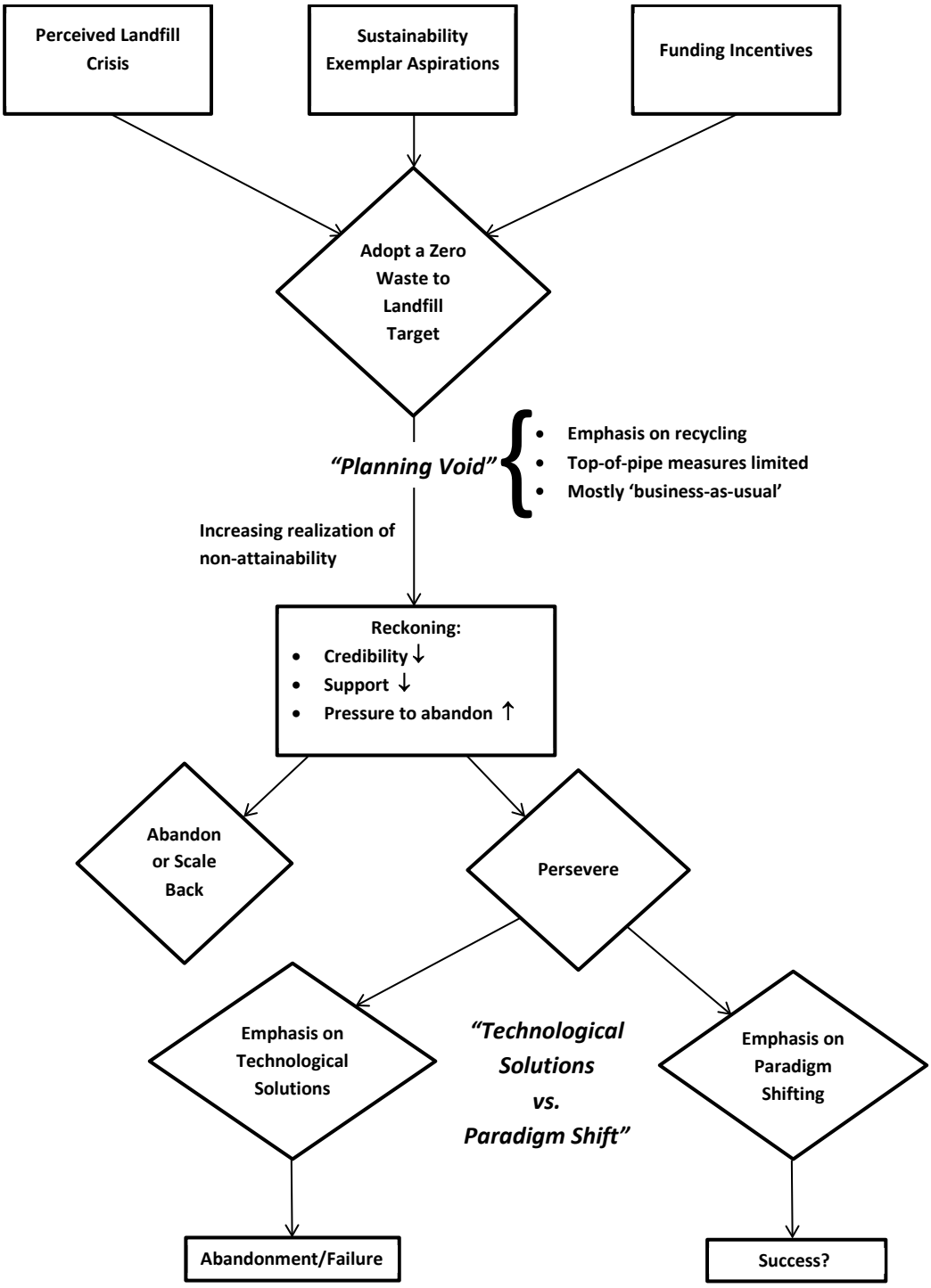

Figure 5: Common Trajectory of Zero Waste to Landfill Initiatives.

WHY DO LOCAL GOVERNMENTS DECLARE ZERO WASTE TO LANDFILL GOALS?

The decision to undertake a ZWtL initiative appears to be based upon three different types of motivating factors. One of these is a *perceived landfill crisis*, whereby future landfill capacity appears to be in doubt, based on a shortage of available land near the community, or else on difficulties to gain public or environmental approval for a new site. Toronto's campaign was launched at a time when there were growing concerns that sufficient new landfill space might not be obtained,[56] while in Christchurch the initiative offered a hedging of sorts against the

[56]. *Flynn 2011.*

possible failure of ongoing attempts to secure a new landfill site.[57]

Sustainability exemplar aspirations can also lead proponents to aim for ZWtL . Canberra and San Francisco are examples of this: the former having promoted itself as the world's first local government to declare a ZWtL goal,[58] and the latter featuring zero waste as part of a wider public profile as a global leader in sustainability.[59]

Funding incentives, in the form of financial support in return for launching a ZWtL initiative, represents an additional type of motivation with particular relevance in cases where there would otherwise be little likelihood of adopting such a goal. None of the case study locations fall into this category; however, the majority of local initiatives launched across New Zealand around the time of Christchurch's campaign are examples of this.[60]

The 'Planning Void', and Subsequent Period of Reckoning

All of the case studies shared in common a missing comprehensive plan for achieving 100 percent diversion, coinciding or following on from the launch of the campaign. This *planning void* is characterized by an emphasis on end-of-pipe over top-of-pipe strategies, and an overall 'business-as-usual' approach to waste-generating behaviors in spite of the ZWtL goal.

ZWtL initiatives generally experience an initial post-launch period during which there is very little questioning or second-guessing of the goal, and during which time the campaign is focused on the implementation of the mostly end-of-pipe strategies such as expanded recycling. These early years are typically marked by increases in the reported percent diversion rate – and as this tends to be the statistic of preference during this phase, these early results have a tendency to reinforce a positive image of the initiative's progress.

The more pertinent per capita waste to landfill data, however, eventually emerges to belie the success story presented via percent diversion figures. Once it becomes evident that per capita waste to landfill is either decreasing too slowly, staying level or increasing, there commences a period of increasing realization and public admission that the ZWtL initiative lacks comprehensive planning and sufficient across-sector support, and might therefore ultimately fail.[61]

During this phase, the initiative faces escalating challenges, including losses in credibility and support from various stakeholder groups, and increasing pressure to abandon or scale back the campaign, with additional external factors such as newfound additional landfill capacity exacerbating this pressure, as was notably observed in the Christchurch[62] and Toronto[63] cases.

A critical junction is thus eventually reached, at which time the proponent must decide between stepping back or continuing forward. Christhurch abandoned ZWtL at this point, while Canberra and Toronto chose to persevere. Meanwhile, San Francisco's initiative is still basking in the early glow of impressive reported percent diversion statistics,[64] and with seven years remaining until its 2020 target date it has yet to endure its period of reckoning.

Technical Solutions vs. Paradigm Shift

When the decision is made to persevere with a ZWtL initiative, it is by then better understood that there is a need to revise the overall strategy. This presents an opportunity to make a radical move: to switch focus from end-of-pipe strategies such as expanded recycling, which are not working, to top-of-pipe strategies involving across-sector behavior change. In other words, it is a chance to make a paradigm shift from linear waste management practices to circular zero waste ones.

[57]. Perriam 2012.
[58]. Australian Capital Territory 1996.
[59]. SF Environment 2013a.
[60]. Snow and Dickinson 2003.
[61]. See, for example, Office of the Commissioner for Sustainability and the Environment, ACT 2000; Christchurch City Council 2001; City of Toronto, 2004a.
[62]. Christchurch Press, September 8, 2001, WE6.
[63]. City of Toronto 2007b.
[64]. SF Environment 2012b.

In all initiatives observed, however, proponents at this stage have chosen instead to pursue an emphasis on *technical solutions*. Top-of-pipe measures are routinely mentioned as potential strategy elements, but there is typically little or no firm planning or commitment to pursue these options, whereas actual planning and commitment is invested mainly in end-of-pipe measures such as expanded resource recovery, as happened in Canberra,[65] or else in unproven or vaguely-defined 'new and emerging technologies', as in the Toronto case[66].

The persistent attachment that ZWtL proponents have to recycling in particular is a notable element in the overall preference for technological solutions. Recycling is a widely recognized means for recovering resources from present-day waste; however, it is also often criticized as being unfeasible economically due to unreliable markets for recovered materials.[67] Moreover, recycling is well understood to fall far short of reducing residual waste levels to zero,[68] making it a clearly unfeasible central component for any ZWtL initiative. Recycling is even cited by some critics as a net *detriment* to waste reduction efforts, as it is argued that its 'feel-good' image diverts attention, support and energy away from more meaningful strategies at the top-of-pipe.[69]

FAILURE TO PARADIGM-SHIFT: THE 'UNACKNOWLEDGED SUPERMEGAPROJECT'

In all of the case studies, the adoption of the ZWtL goal was heralded with clear language articulating the intention to end landfilling, along with rhetoric suggestive of a fundamental transformation from linear to circular systems thinking.[70] It is noteworthy, then, that in all cases the launch of the campaign was followed by the existence of a planning void, instead of a comprehensive plan for achieving the 100 percent diversion goal.

To better understand this apparent disconnect between goal-setting and planning for attainment, it is helpful to consider what ZWtL would actually entail. Dependence on landfilling of residual wastes is the result of the widespread existence of products made with problematic materials, including but not limited to:

Plastics in general – which are found in almost every category of human-made items;

Electronic devices such as computers, cell phones and televisions – which include plastics as well as other problem materials such as heavy metals;

Medical equipment;

Food packaging;

Automobiles;

Appliances.

Under present economic and social conditions, it seems highly unlikely that members of society would, en masse, willfully give up even a single one of these categories of items. And yet, the continued existence of any one set of these items by itself represents an obstacle to the attainment of ZWtL.

Achieving the 100 percent diversion goal would require a wholesale retooling of industry to phase out the incorporation of problematic materials, deep sacrifice from a public who would be required to give up many of the conveniences and utilities that they have grown to depend upon over the course of lifetimes, and strong leadership from government in the face of industry resistance and public apathy/antipathy. In other words, ZWtL is a *supermegaproject*.

However, in none of the observed ZWtL initiatives did the local government proponent openly articulate that the goal represented an undertaking of such massive proportion. In each case, there has been no overt message to industry that systems of production would have to be revised to completely eliminate the incorporation of problematic materials. And there has been no overt message to the public that getting to zero waste would mean that everyday things like computers, cars and food

65. See Australian Capital Territory 2004.

66. See City of Toronto 2005.

67. See, for example, Carroll 2012; Hoornweg and Bhada-Tata 2012; van der Werf and Cant 2012.

68. See, for example, Braungart, McDonough, and Bollinger 2007; Kumar et al. 2005; MacBride, as cited in Royte 2005; Watson 2009.

69. See, for example, MacBride, as cited in Royte 2005; Watson 2009.

70. See Australian Capital Territory 1996; Christchurch City Council 1998; City of Toronto 2001; SF Environment 2003.

packaging would have to disappear from their lives because they cannot be fully recycled. In other words, ZWtL, to date, have been unacknowledged supermegaprojects.

Supermegaprojects such as ZWtL operate against a very steep gradient of resistance, which consists of public apathy/antipathy, industry pushback, and government unwillingness to use their powers to enforce compliance. Against such strong opposing forces, supermegaprojects cannot succeed by accident; rather, they require fundamental and concerted cooperation across all stakeholder groups. Unacknowledged supermegaprojects, lacking the impetus to rally such necessary extreme effort, are therefore destined to fail.

The planning void is a direct consequence of ZWtL initiatives being unacknowledged supermegaprojects: since there is no recognition by the proponent of the magnitude of the endeavor, it follows that there is no recognized need for any comprehensive planning, beyond adjustments to existing and mainly end-of-pipe measures such as recycling. Similarly, the choice of technological solutions over paradigm shifting, which proponents consistently make if and when they decide to persist with flagging campaigns, is a further consequence of ZWtL being an unacknowledged supermegaproject.

Acknowledgement of these initiatives as supermegaprojects tends to finally occur once a formal decision is made to abandon them – at which point the proponent typically cites the extreme requirements of the undertaking as a justification for giving up and switching to a more 'realistic' waste management goal.[71] This appears to be the common way that ZWtL initiatives come to their conclusions: in the face of a reality check which happens too late.

THE WIDER SET OF ZERO WASTE TO LANDFILL INITIATIVES

While the in-depth analysis of policy decisions and actions, and associated discourse, has been limited to the four case studies, there has also been a more general survey of the wider set of global zero waste to landfill initiatives, conducted as part of the overall research.

As discussed earlier, a significant early finding of this study was that no evidence of 100 percent diversion attainment could be found in any of the ZWtL campaigns launched around the world. This includes examples such as Tauranga, New Zealand, which adopted its ZWtL by 2015 goal in 2001 and then abandoned it in 2010,[72] and Nelson, Canada, where a ZWtL by 2020 campaign started in 2003 has since faded into non-activity.[73]

Of the many ongoing ZWtL initiatives around the world, Kamikatsu, Japan's bid to end landfilling or incineration by 2020, is a notable example of a campaign cited as a waste reduction exemplar. This remote village of 2,000 residents declared its 100 percent diversion goal in 2003 in response to strict regulations on dioxin emissions which forced the closure of two incinerators. A notable feature of this initiative is the implemented system of sorting waste into no less than 34 different bins.[74] By 2005, Kamikatsu had reported a 90 percent household recycling rate; however, it is acknowledged by the community that closing the loop completely is a difficult challenge, as the remaining residual waste represents items that they are unable to recycle.[75]

ZWtL initiatives such as those in Tauranga, Nelson, and Kamikatsu would require further in-depth investigation, before the recurring patterns from the case studies could likewise be atttributed to them with the same level of confidence. From the cursory evidence, however, it does appear likely that these other ZWtL initiatives are unacknowledged supermegaprojects as well – lacking proper articulation of the magnitude of the undertaking, developing subsequent planning voids, and

[71]. See Australian Broadcasting Corporation 2009, available at http://www.abc.net.au/news/2009-01-21/rubbish-target-purely-aspirational-stanhope/273440; Christchurch City Council 2001; City of Toronto 2007a.

[72]. McPherson, Michele. "Zero Waste Plan Thrown Out". Bay of Plenty Times, June 10, 2010.

[73]. Author's interview with Nelson City Councilor Donna Macdonald, February 6, 2012.

[74]. McCurry, Justin. "Climate Change: How Quest for Zero Waste Community Means Sorting the Rubbish 34 ways". The Guardian, August 5, 2008.

[75]. Hill, Hislop, Steel, and Shaw 2006.

featuring inherent preferences for technical solutions over paradigm shifting.

CONCLUSIONS

Zero waste to landfill initiatives are consistently failing because success requires a paradigm shift from waste management to zero waste principles – and the proponents of these initiatives are not willing or able to effect this fundamental change.

While all of the ZWtL initiatives observed in this study were launched with official and unequivocal pledges to eliminate landfilling by specified deadlines, every single campaign also proceeded to fall into a planning void, instead of developing a comprehensive plan for getting to 100 percent diversion. Accordingly, all of these initiatives have either failed, or if ongoing are on a clear track for similar failure.

The apparent disconnect between formal goal adoption and the subsequent planning void can be explained by the fact that ZWtL initiatives are unacknowledged supermegaprojects: undertakings requiring enormous and unprecedented effort and transformation across government, industry and the public, yet lacking the overt signaling of such by the proponents that is necessary to elicit the required action.

The far-reaching influence of economic globalization means that local governments worldwide are extremely ill-equipped to achieve ZWtL on their own. Innumerable products, made with a myriad of problematic materials, flow into each community from untraceable sources, and as such local governments have virtually no control over the top of the waste pipe. Rather, local governments are empowered only to implement strategies at the end of the waste pipe, such as the recycling programs which are observed to be the main extent of significant action emerging from these campaigns. The irreconcilable reality is that, with all of the problematic wastes coming into their communities from places and through means outside of their spheres of control, local governments have lost the ZWtL battle far upstream, before the garbage reaches the curb.

For ZWtL initiatives to succeed at the local level, there must be some means to prevent 100 percent of problematic wastes from entering the waste stream in the first place. Under present conditions, this appears to be impossible to achieve, and therefore it would seem unfeasible for any local government to declare such a goal.

One hypothetical scenario for ZWtL success is where a local government imposes its own total ban on allowing problematic materials into the community's waste stream. Such a strategy would depend upon the development of an extremely localized and self-reliant economy, which was able to provide the community with goods that satisfied all criteria for zero residual waste – something more or less unprecedented since the advent of the globalized consumer marketplace several decades ago.

It appears much more likely that ZWtL attainment could be approached through intervention from higher levels of government: national or even supranational. This is consistent with the fact that problematic wastes are flowing into communities from sources all over the world: ie, the top of the waste pipe sits mainly at the global level, so it is logically there where control over the waste stream could most successfully be asserted. For this reason, any local government not prepared to take drastic and unprecedented local steps of their own to enable a shift to ZWtL will likely have to lobby and/or wait for fundamental change to come from higher levels of government before 100 percent diversion can be realized in their community.

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The Aranui/Hampshire Paradox: Planning and the politics of street naming in Christchurch, New Zealand

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1. INTRODUCTION

As far as suburbs with bad reputations go, Aranui in Christchurch often seems to dominate local public perceptions. High crime, high unemployment, low incomes, run-down state houses and uncared-for neighbourhoods have been the key words and phrases used over many decades.[1] This reputation achieved national standing over the same period and in 2001 Aranui gained the dubious distinction of becoming the pilot project for the Labour Government's state housing Community Renewal Programme initiated in 2001.[2] It is common to read "Don't buy or rent here" comments on websites and blogs advising prospective immigrants on where to live.[3] One of the dispiriting moments in Aranui's history came in September 2009 with the discovery of two bodies under the floorboards of a Hampshire Street property and the subsequent charge of double-homicide and conviction of local resident Jason Somerville for the murder of his wife Rebecca Chamberlain and neighbour Tisha Lowry.[4]

Over the past twelve months barely a week has gone by without mention of a house fire in this neighbourhood. [5] This is despite the fact that while properties may have been damaged or abandoned since the earthquakes of 2010-2012 no part of the land in Aranui has been "red-zoned", i.e. deemed unfit for occupation by domestic dwellings. Red zoning is sometimes used to explain why structures have been set alight in adjoining neighbourhoods where both houses and the land have already been condemned; it merely speeds up the process of desertion. Although there are some 1500 houses in Aranui - of which the government owns more than 450 as rental housing - most are deemed in need of repair only and in principle can be fully let. This local "burned-over district," as Mike Davis has re-purposed the evangelist's term when describing urban problems in Los Angeles,[6] seems, on the surface at least, to have a self-destructive element to it.

There has also been a perception, reasonably accurate until the earthquakes, that Aranui was increasingly becoming home to high concentrations of Maori and Pasifika people in Christchurch.[7] Although it was not evident when judged by the generally muted appearance of houses and gardens in the neighbourhood, throughout the 1990s and 2000s, attendances at local churches and some public events made it clear that there was a distinctly non-European feel beginning to take hold. This changed dramatically after the earthquakes when many Maori and Pasifika moved to other areas of Christchurch or parts of New Zealand.

Yet if one looks at a street map of Aranui, the streets suggests an area that could hardly be more quintessentially English, even by Christchurch (New Zealand) standards. Hampshire, Basingstoke, Purbeck, Solent and Lyndhurst, for example, connote the green English countryside or picturesque port locations. The sandy soils and treeless brown landscapes of Aranui could hardly be further apart in appearance and feel to the leafy heart of Albion, so how did this happen? Was colonialism so entrenched that it stayed mindlessly perpetuated

in New Zealand planning bureaucracies until the mid-1970s when Aranui received its final batch of Anglophile street names? Was it more a case of random or idiosyncratic selection, left to a faceless individual? This discussion firstly explores how the streets in Aranui got their names. I then ask whether it matters how they got their names and I argue that the political and policy dimensions of street-naming are not merely historical questions; planners need to be prepared to revisit and reconfigure the identity of local neighbourhoods in partnership with local communities as circumstances and values change, particularly in "under-developed" locales.

2. NAMING THE SUBURB

As a local historian has been at pains to point out there are, in fact, two areas or neighbourhoods that make up what is labelled by most as Aranui.[8] "Wainoni" has disappeared from usage except as the name for a main road and a public park yet at one time it was an official designation.[9] Wainoni is often translated as "bend in the water" and is usually traced back to the name given to the house and large property established in 1884 by the undeniably eccentric Alexander William Bickerton. Bickerton's estate bordered the southern bank of the Avon/Otakaro River and became the well-known "Wainoni Park" attraction over the next two decades. Whether he merely adapted an existing or earlier description is not clear but its lack of romantic or fanciful connotations suggests that it may simply have been a longstanding local description for the area.

"Aranui" translates as "great or major pathway" and again this may refer simply to a pragmatic description by local Ngai Tahu of the most convenient transit route between, say, Kaiapohia and Rapaki. Scattered historical notes suggest that there was archaeological evidence of a crossing point near the Bower Avenue Bridge which would support the idea of a transit route cutting across the area. More light needs to be shed on the origins of these names, but the important point is that apart from the addition of Ben Rarere Avenue in 2006 – named in honour of an important local community member and Maori Warden who had worked in the area since the 1970s - the reference to tangata whenua stops there in most sources. With the exception of "Wainoni Park" and the impressive carved po on the Hampshire Street frontage, everywhere you turn in the labyrinth of streets suggests that you are in the heartland of southern England and its southern coast, rather than the South Pacific.

3. NAMING THE STREETS

How the streets of Aranui and Wainoni received their very localised English names appears to have gone unrecorded despite extensive archival research to trace the process by which names were allocated. The general approach and methodology to making state housing development was followed here as elsewhere. Central government, via the then Housing Construction Division, the Ministry of Works, and the Lands and Survey Department, all operating between their Wellington Head Office and Christchurch District Branches, created the maze of streets and most of the houses within the neighbourhood. The word "most" in the sentence above is important as it is often assumed, wrongly, that Wainoni and Aranui were pure state rental housing projects from the outset, in keeping with the tradition of state housing provision established by the Labour administrations of the 1930s and 1940s. In fact the scheme, as envisaged here along with others that were delivered under a new National administration in the early 1950s, was conceived as a more or less even mix of state rental and private dwellings. The latter were to be delivered via a much vaunted "group housing" scheme. The state broke in and serviced the land, then sold the sections to builders or groups of builders to build houses with the guarantee of purchase of unsold properties. The state houses were for the most part to be standard single family home detached state houses for initial rental and potential on-selling later. Again, unlike pre-War specifications which were of a high standard and which many private builders had long thought undercut their own competitiveness, the 1950s state housing designs were pared back and flimsier, by some accounts (including tenants), than those of the Labour era. A number of multi-units for more or less permanent renting were also included.

Major development work began late in 1952. The initial land purchase involved much legal and engineering work. Amongst many straightforwardly negotiated land purchases there were a few compulsory acquisitions (and several cases of protracted litigation for higher compensation over twenty years including one where the legal action outlived the complainant). There was the cutting and filling of sections and the provision of what we now call "infrastructure" i.e., water mains, stormwater and sewerage drainage followed of course by the making of roads, thoroughfares and a number of parks and reserves. At this time the development was referred to as the "Wainoni Block." There were a few pre-existing roadways with names such as Marlow, Rowan, Rowses and the slightly more intriguing Eureka Street. These were absorbed into the new development.

Although the Wainoni Block was the principal focus for development and was added to in a substantial way by the purchase in the late 1950s of the "Speedway Block", named after the former motorcycle and midget car speedway that had operated in the area in the late 1940s, the first streets to be completed and opened up for both group and state house building contracts were in fact in a small enclave to the south of the main development. The origins of Betty Place, Doreen Street and Merrington Crescent make for mildly endearing reading even if it smacks of male condescension. These names, according to one source, acknowledge the spouses of draughting staff at the Lands and Survey Department local office in Christchurch. Doreen Street, for example, acknowledged Doreen Frances Brown, wife of Alfred Vernon Brown and Betty Place paid tribute to Betty Spear, wife of Roy Bramwell Spear.[10] The other street developed at the time, Merrington Crescent, has not been explained to date.

4. THE NEED FOR NAMES: A LIGHTNING RAID ON HAMPSHIRE, DORSET AND THE ISLE WIGHT

In the main development, the Wainoni Block, at least twenty brand new streets appeared on the first maps that emerged during early 1950s and in the first sketches they would merely have been labelled numerically by engineers and draughtsmen. One of the earliest plans from 1955 shows a proposed layout and some provisional names (see Figure 1). It is certain that these names and the ones mentioned above were fixed by mid-1955 as a small article on new streets in the city that appeared on page 5 of *The Press* of June 28th listed all of the names shown here.

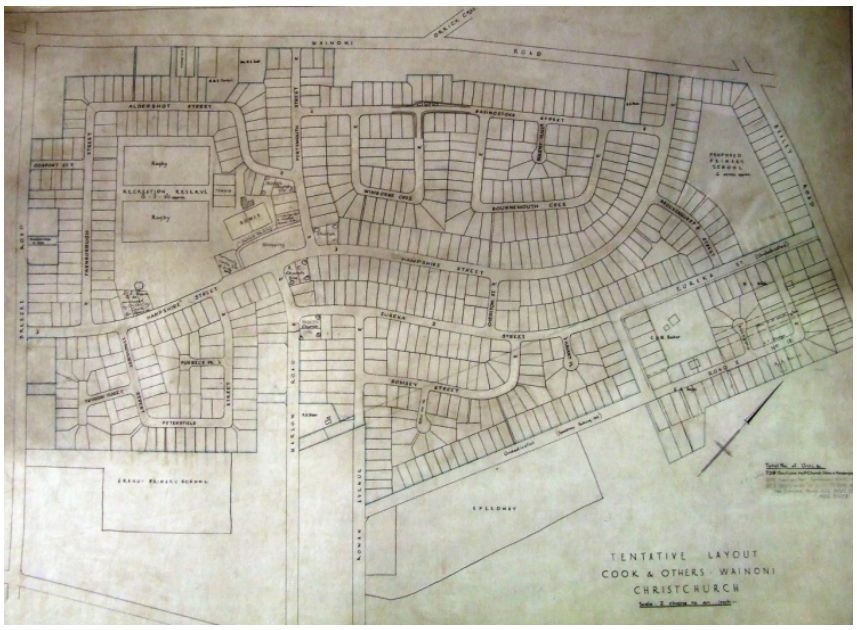
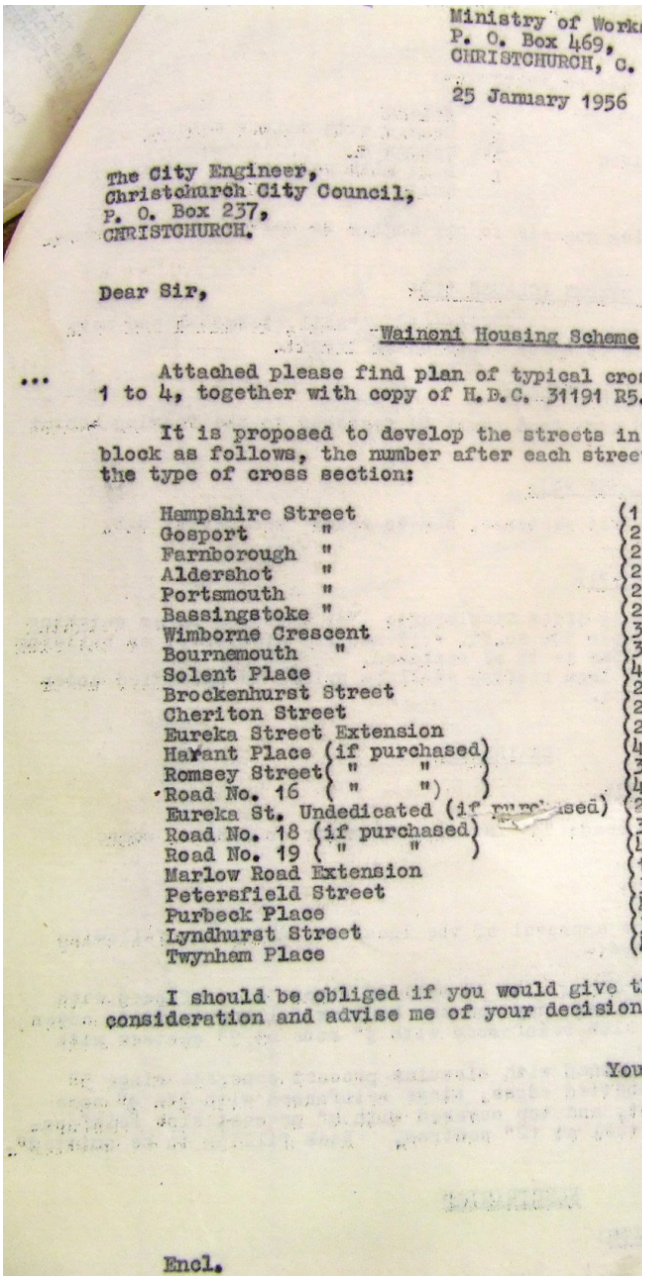


Figure 1: Tentative Layout, Cook and others, Wainoni Christchurch 1955 (Archives New Zealand, Christchurch File: R22245204 HDC31191 Scheme Plan Wainoni Block).

As reproduced here the street names are difficult to read, but a piece of official correspondence from the time provides a list (See figure 2). The letter is principally concerned with street widths and the order of names does not tally with road numbers on the plan above but it provides the first real capture of the "flavour" of the nascent suburb.



Ministry of Work
P. O. Box 469,
CHRISTCHURCH, C.

25 January 1956

The City Engineer,
Christchurch City Council,
P. O. Box 237,
CHRISTCHURCH.

Dear Sir,

Wainoni Housing Scheme

Attached please find plan of typical cro
1 to 4, together with copy of H.B.C. 31191 R5.

It is proposed to develop the streets in
block as follows, the number after each stree
the type of cross section:

Hampshire Street (1
Gosport " (2
Farnborough " (2
Aldershot " (2
Portsmouth " (2
Bassingstoke " (2
Wimborne Crescent (3
Bournemouth " (3
Solent Place (4
Brockenhurst Street (2
Cheriton Street (2
Eureka Street Extension (2
Havant Place (if purchased) (1
Romsey Street (" ") (1
Road No. 16 (" ") (1
Eureka St. Undedicated (if purchased) (2
Road No. 18 (if purchased) (1
Road No. 19 (" ") (1
Marlow Road Extension (1
Petersfield Street (1
Purbeck Place (
Lyndhurst Street (
Twynham Place (

I should be obliged if you would give t
consideration and advise me of your decision

You

Encl.

Figure 2: District Supervisor H. S. Sherbrooke to City Engineer, 25 January 1956. File: Archives New Zealand, Christchurch R20012408 Group Building Wainoni Block.

By reconciling this list above with the fragmentary map information available it is possible to construct a street number/street name list to which I have added some descriptive information where (H) stands for the County of Hampshire, (D) stands for Dorset and (IW) stands for the Isle of Wight:

1. Hampshire Street (H) – Hampshire is a large and populous county on the south east coast of England with an area of some 3900 km2 and a population of more than 1,760,000. The County Flower is the Tudor Rose.
2. Basingstoke Street (H) - Basingstoke was a small market town until the 1950s and lies west of Farnborough and Aldershot.
3. Portsmouth Street (H) - Portsmouth is a large city on the south coast and a major base for the Royal Navy.
4. Bournemouth Crescent (H) - Bournemouth is a large coastal resort town and was within the boundaries of Hampshire until it became part of Dorset in 1974 and it is the nearest city to Christchurch.
5. Brockenhurst Street (H) - Brockenhurst is a picturesque village in the New Forest northeast of Christchurch and south of Lyndhurst.
6. Solent Place (IW) - "The Solent" refers to the strait that runs between the Isle of Wight and Dorset.
7. Cheriton Street (H) - Cheriton is a small village in the South Downs between Winchester and Petersfield.
8. Havant Place (H) - Havant is a market town north east of Portsmouth and south of Petersfield.
9. Wimborne Crescent (D) - Wimborne is a market town north west of Bournemouth.
10. Aldershot Street (H) - Aldershot is a large town south of Farnborough and is known as the "home of the British Army".
10. Farnborough Street (H) - Farnborough is a town to the north of Aldershot and east of Basingstoke best known for its annual Airshow.
11. Gosport Street (H) - Gosport is a port town on Solent Peninsula opposite Portsmouth and the Isle of Wight.
12. Lyndhurst Street (H) - Lyndhurst is a village in the New Forest north of Brockenhurst and south of Romsey.

12. Petersfield Street (H) - Petersfield is a market town in picturesque location.

13. Twynham Street (D) - Twynham is a school in Christchurch, Dorset (but was in Hampshire until county boundary changes in 1974).

14. Purbeck Place (D) - Purbeck peninsula is a noted geological form, often referred to as an island, which terminates at Swanage.

15. Romsey Street (H) - another market town dropped later makes up triangle between Winchester, Southampton and north of Lyndhurst.

As it happened, Romsey Street, Petersfield Street and Havant Place did not make the final configuration while Farnborough was reassigned during the final phase of expansion of the development. Nevertheless, the total number of streets as envisaged here was 17. The Hampshire and south coast theme continued with the subsequent additions of streets and housing to Aranui during the 1960s. The official records do not specify the dates and order of new names that were assigned but a pattern can be derived from first mentions in street directories which the Christchurch Public Libraries have used to gather information on street name origins[11].

1964

1. Yarmouth Street (IW) - Yarmouth is a port and coastal resort town on the west end of the Isle of Wight across the Solent from Lymington.

2. Sandown Crescent (IW) - Sandown is seaside resort on the eastern end of the Isle of Wight.

3. Carisbrooke Street (IW) - Carisbrooke is a village dating from medieval times west of Newport on the way to Yarmouth.

4. Soberton Street (H) - Soberton is in the Meon Valley a few miles south of Corhampton.

1966

5. Mattingley Street (H) - Mattingley is a very small village between Farnborough and Basingstoke but to the north.

6. Warblington Street (H) - Warblington is a suburb of Havant.

7. Meon Street (H) - Meon is named either after the River Meon or West/East Meon in South Downs where the Meon rises.

1968

8. Ventnor Place (IW) - Ventnor is a seaside resort south of Sandown.

9. Winchfield Street (H) - Winchfield is a small village between Farnborough and Basingstoke.

10. Corhampton Street (H) - Corhampton is a very small village on the west bank of the River Meon in South Downs.

11. Portchester Street (H) - Portchester was once a small village and is now part of a conurbation just above Gosport in Portsmouth Harbour.

12. Netley Place (H) - Netley Marsh is a small village in the New Forest.

[13. Farnborough Street – held over from 1955].

During the period 1972-75 the very final phase of Aranui's development took place and the names St. Heliers Place, Channel Place, Carteret Place, Casquet Lane, Pateley Lane, Cornet Lane and Guernsey Street might appear to extend the English connection in a deliberate manner. However, this was predominantly a private subdivision at the southern edge and the developer, Ronald Cyril de la Mare (1925-1975), who was the managing director of the Bower Egg Farm Ltd, named the streets to acknowledge his home area of Guernsey[12]. The final layout for Aranui is shown marked in green in Figure 3.

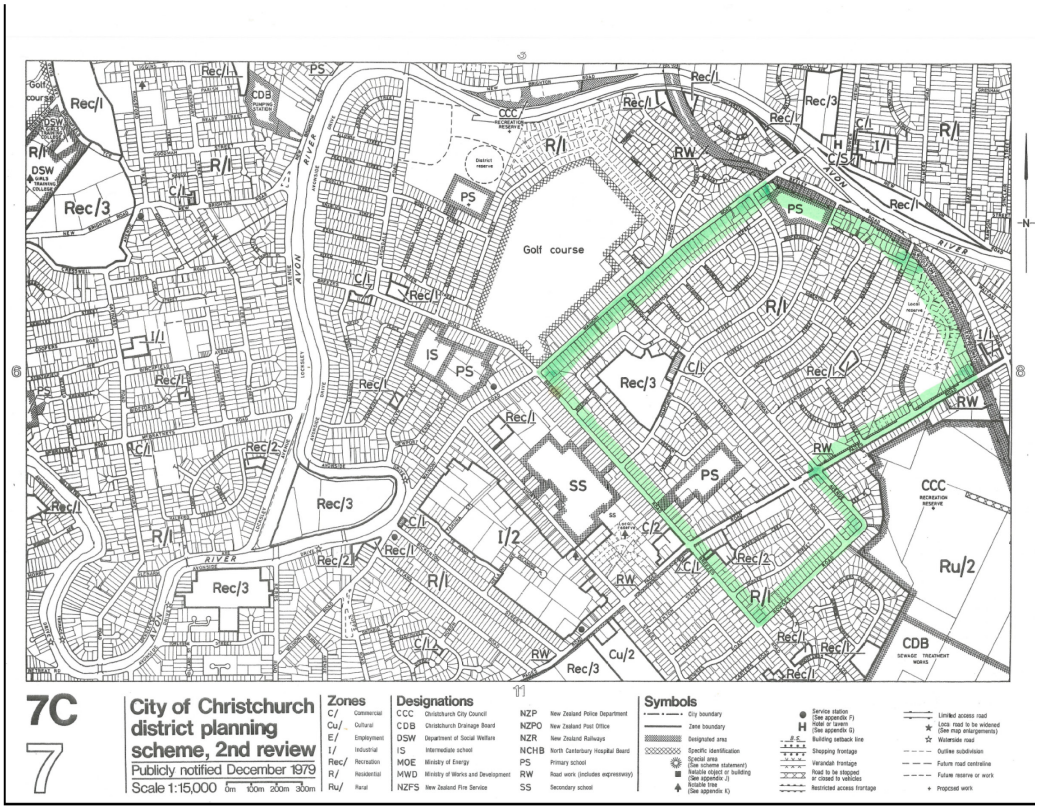


Figure 3: City of Christchurch district planning scheme 1979 planning map 7C (Aranui is shown in the area contained within the borders marked in green)

To the 17 names listed earlier another 12 must be thus be added in this apparent miscellany of English place names. In the absence of any official explanation, direct guidance or clues, the 29 choices evoke a classic and extended Monty Python sketch. In "the Cycling Tour," the unutterably dull Mr Pither, played by Michael Palin, embarks on a cycling tour of Devon which he fastidiously records in a diary.[13] His daily entries invariably start with "Fell off near…" places such as Bovey Tacey, Tiverton, Ottery St Mary, and Tavistock to mention but a few.

Similarly, the list of names for Aranui and Wainoni reads like the travelogue of a motoring or cycling (and probably rather damp camping) excursion through lower Wessex just after the Second World War with a few grimy towns thrown in for good measure. While this may seem rather fanciful when judged by present standards of naming – typically a committee-based process using multiple forms of consultation with multiple stakeholders including tangata whenua – in the 1950s at least the addition of a large suburb to Christchurch would most probably have been delegated to one or two individuals at most, with the main proviso being keep it English and avoid repeats of names already in use in the city. What is clear, based on correspondence between the Wellington Head Office of the Ministry of Works and the District Branch in Christchurch in the later rounds of name selection, is that the job was that of a central government employee, not the local authority. Who, if anyone, stands out as the most likely candidate for that task?

5. "SPIKE" THE DRAUGHTSMAN AS PRIME SUSPECT

While the great thinkers of planning are much written about in city histories, "planning professionals", if one excludes star architects from this grouping, rarely command attention. Like their fellow professionals of the twentieth century, i.e., engineers, surveyors and draughtsmen and draughtswomen, the price of salaried security for most planners is usually anonymity. Ranking within an organisation does not provide any greater guidance as so many planning functions are delegated. Thus, while in this particular case one might be tempted to look to a senior appointee at the local level, such as Ministry of Works District Supervisor H. S. Sherbrooke who penned the letter shown in

Figure 2 above, his career biography is non-existent.[14]

If there is a prime suspect or candidate for these naming choices then it would appear to be one of the people involved in the designation of the very first new Aranui street names: Roy Bramwell Spear, whose wife Betty, as mentioned earlier, was the inspiration for Betty Place.[15] According to Auckland War Memorial Museum records, Roy "Spike" Bramwell Spear, was born in Christchurch and served in the Royal New Zealand Air Force from 1940 to 1954. He reached the rank of Squadron Leader and received a number of awards including the Distinguished Flying Cross (DFC).[16] A note in the Lands and Survey Annual Report to Government for 1939 shows that Spear was transferred as a Draughting Cadet from New Plymouth to Christchurch.[17] It is clear that following discharge from the Air Force Spear recommenced work as a Lands and Survey Draughtsman in Christchurch and he would have been in the thick of the Aranui project upon his return to his home city.

While Spear may have idly selected the names that sought to define Aranui as if he were retracing a post-war touring holiday through the pleasant English countryside, there are some clear military references in Farnborough, Aldershot and Portsmouth. A more specific pattern emerges when these and other names are correlated with former Royal Air Force bases and airfields of the World War Two era. During the war, Spear flew with 218 Squadron, which was based in Norfolk, East Anglia. His postings after then are not clear but based on the assumption that Spear was instructed by one of his seniors to name around 20 streets in a major new subdivision with an obvious connection to Hampshire and the Christchurch in England he appears to have used this opportunity to tick off a number of key RAF bases and airfields that figured in critical bombing campaigns and invasions launched from the south coast of England.[18] The streets of Aranui, then, appear to owe their existence to the mental map of a local World War Two flying ace thinking back to events less than a decade past.

6. CONCLUSION

What, you might ask, has all this to do with present day Aranui and Wainoni? There are a number of points to consider. Firstly, there is the contradiction that among the few suburbs in Christchurch that bear Maori names and which, until recently at least, held one of the highest urban concentrations of tangata whenua (and Pasifika peoples), these are overwhelmingly "ultra-Anglo" in nomenclature. And these are not old suburbs. They are a post-war product and coincide with the first serious efforts to recognise a bi-cultural, if not multi-cultural, society – the population boom in Aranui occurred during the 1960s, the time of civil rights campaigns here and abroad.

Secondly, Aranui has been stigmatised to the extent that incremental housing renewal programmes, such as those carried out under a Labour administration between 2001 and 2008, will not be sufficient to reset the compass, so to speak. As with other master-planned state housing projects of the post-war period it needs to be acknowledged that having made such commitments once, ongoing recommitments will always be required, perhaps not at the master plan level, but at the very least in terms of periodic reviews without prejudice, where such things as the configuration and naming of streets might sensibly be revisited.

Thirdly, the earthquakes of 2010-2012 have left Aranui in another paradoxical position. The streets and housing stock, although damaged, have fared better than some of the immediately adjoining neighbourhoods and suburbs. Within two to three years Aranui will be a residential island in a sea of red-zoned, light industrial and utilities e.g., sewage treatment, land. Adding to this novel situation Aranui is at the centre of one of the largest post-earthquake Christchurch school re-organisation decisions whereby the existing primary schools within the suburb will cease to exist to become part of a campus combining five schools on the edge of the suburb. A significant part of Aranui will have to be re-planned as a result. The risk is that without reinvestment Aranui will be a kind of desert island if things are left to progress incrementally or by attrition.

Fourthly, the natural environmental conditions in Aranui are not reflected in the built environment. Prior to the making of the state housing subdivision Aranui was an undulating sand hill and hollow landscape with very dry and very wet underlying soils and a wider topographical profile than most would imagine. Exposed to the prevailing easterly it supported hardy coastal vegetation. The apparent proximity of the Avon/Otakaro River, once an integral part of the local ecosystem, is a practical illusion since that natural feature has been fenced off from Aranui by virtue of the Bexley motorway. If ecological restoration projects are good enough for other parts of Christchurch, and these are common throughout many other suburbs, whether public or private, they ought to be emerging in Aranui.

With these points in mind it is time, in my view, to reconsider, reclaim, rename and revitalise Aranui and Wainoni. Those with the greatest commitments and investments there, including residents, neighbourhood groups, Ngai Tahu, Pasifika organisations, church groups, Housing New Zealand (and their planners) and Christchurch City Council (and their planners) need to collaboratively redesign the area. Talk of "anchor" projects is rife at present in Christchurch with most of the rhetoric directed at the Central City. In the case of Aranui a different metaphor seems more suitable: "kaharoa," a Maori term which translates loosely as "large net." The way forward may be multiple but interwoven projects which draw people back to the east. Aranui is at the core of that net, a net with loose ends that need tying up. We are not in Hampshire anymore.

[1] http://www.stuff.co.nz/the-press/news/7992714/Setbacks-slow-Aranuis-road-to-recovery. Accessed 2 August 2013.

[2] *Six Community Renewal projects made up the programme between 2001 and 2008: Aranui, Clendon, Eastern Porirua, Fordlands, Northcote and Talbot Park. The projects were discontinued after the National Party won the 2008 election. During the life of the Aranui Community Renewal Project 62 units in multi-unit configuration were replaced with 48 single-storey units.*

[3] http://www.geekzone.co.nz/forums.asp?forumid=48&topicid=114597. *Accessed 2 August 2013.*

[4] http://www.stuff.co.nz/national/crime/2836777/Slow-recovery-of-buried-bodies. *Accessed 2 August 2013.*

[5] http://tvnz.co.nz/national-news/christchurch-arson-attacks-mean-and-vicious-4755474. *Accessed 2 August 2013.*

[6] *Davis, M. 1999. The Ecology of Fear: Los Angeles and the Imagination of Disaster. London: Picador, pp.112-122.*

[7] *Maori comprised 21.3 % and Pacific peoples comprised 18.1 % of the local population according to the 2006 Census. The ratios for the Canterbury region were 7.2% and 2.1% respectively.*
http://www.stats.govt.nz/Census/2006CensusHomePage/QuickStats/AboutAPlace/SnapShot.aspx?ParentID=1000013&type=au&p=y&printall=true&tab=Households&id=3593100.

[8] *Baker, T. 2007. Aranui and Wainoni History, Christchurch, New Zealand. Christchurch: Tim Baker.*

[9] *The original government purchase of parcels of land in the area in the early 1950s yielded what was labelled the "Wainoni Block" even though it encompasses what most people now call Aranui. In official government archives, most of which are held at the offices of Archives New Zealand in Christchurch and Wellington, the name Wainoni is used on most files until well into the 1970s.*

[10] http://christchurchcitylibraries.com/Heritage/PlaceNames/ChristchurchStreetNames-B.pdf. *Accessed 2 August 2013. Research Librarian Margaret Harper conducted an interview in 2005 with a member of the Spear family.*

[11] *http://christchurchcitylibraries.com/heritage/placenames/*

[12] *Baker, T. 2007, p. 86.*

[13] *Monty Python's Flying Circus "The Cycling Tour" Episode 8 Season 3, aired on BBC One 2 December 1972.*

[14] *H. S. Sherbrooke is mentioned in the Appendices to the Journal of the House or Representatives 1950 Session I, D-01 p. 14 Ministry of Works Statement as a District Supervisor moving from the Napier office of the Christchurch office that year.*

[15] *This research has found no record of the life or works of Alfred Vernon Brown the other staff member at the Ministry of Works.*

[16] http://muse.aucklandmuseum.com/databases/Cenotaph/129357.detail

[17] *Appendix to the Journal of the House of Representatives 1939 Session I, C-01a, Department of Lands and Survey Annual Report, p.13.*

[18] http://en.wikipedia.org/wiki/List_of_former_Royal_Air_Force_stations. *Accessed 2 August 2013.*

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Transport planning – the orphan child

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Transport planning is an orphan child: land use, resource management, environmental and energy planning all touch on transport planning, but are incidental to a different main focus.

Who does cover transport planning? By default maybe traffic engineers, but (even if 'integrated' or multi-modal) their focus on traffic and technical solutions brings its own bias.

Then there are experts in public transport, rail freight, or cycle route networks, but each is a niche area. For example, passenger rail planning may end at the station, leaving integration with other transport, or 'transit-oriented development', to others.

Urban designers may prescribe street narrowing, traffic calming, shared pedestrian spaces and grid layouts – all anathema to traffic engineers, because urban designers see a street as a space, and traffic engineers as a movement network link.

Then there's funding – what isn't funded won't get built. In New Zealand the *National Land Transport Fund* (NLTF), hypothecated from motor traffic revenue (petrol tax, diesel road user charges, registration and licencing), may be seen as 'belonging to' motorists and trucking firms. This has led to motor-traffic benefits being given greater weight in economic evaluation, compared to non-car benefits and urban form effects (which may even be ignored).

People not directly paying motor traffic revenue may be seen as freeloaders, even though they also pay for transport through local body rates, as car owners, or as income tax payers and even though they may benefit motor traffic by using different forms of transport.

For example, the Palmerston North-Wellington passenger rail service receives no NLTF funding and struggles financially. Elsewhere, a proposed Hamilton-Auckland service has strong public support yet is again refused NLTF funding. Ironically, an NLTF 100 percent funded *Road of National Significance* is being built in parallel with each of these. This has the potential to undermine rail service viability while bringing significant motor traffic into major centres, and requiring parking spaces where land values are already at a premium.

The NLTF system, set up as a user-pays system for motor traffic, usually means economic evaluation at the 'micro' level of individual projects and users. Very little 'macro' NLTF evaluation ever takes place, regionally or nationwide. Previous attempts by the NZ Transport Agency predecessor bodies to address this, such as the 'package approach' (from 2004), have never broken away from the NLTF's micro-level, user-pays and road-based focus.

Planners have a key role in wider evaluation, because only planners look at the overall context of land use planning, urban form, natural resource management, energy use and environmental effects. Planners can also discern the substantive reasoning behind sometimes angry public voices. For example, when the public says a new road isn't needed, planners may understand the reasons behind this better than the traffic modelling professionals.

Some serious thinking is needed on what transport is and why we 'do' it, before we consider needs, issues and problems (such as traffic congestion). This may stop us wasting time on false goals, or missing wider effects. We may even question sloganised statements such as "roads bring jobs" when in fact public transport tends to bring more. Sometimes less travel is better, especially if that means savings in fuel use, time use, adverse environmental effects, and land taken up for roads and parking.

Transport planning hasn't properly embraced the internet yet. This is much more than real-time information, home-working or telecommuting; everywhere we are doing more on-line instead of hard-copy, meaning less physical travel. This brings into question the extent to which traffic forecasting (which tends to extrapolate past trends) is appropriate as a basis for identifying transport needs.

Face-to-face interaction – what towns and cities have always been about – would suggest a strong focus on walking, not as a safety issue but centre-stage because of its wider benefits. It's the most space-efficient of all transport, with health and social effects, quite apart from environmental benefits. As Danish urban designer Jan Gehl has pointed out, spaces attractive for walking induce people to linger, stay and interact (Gehl, 2004). Crime prevention also heavily relies upon 'eyes on the street'.

Next should come cycling. A form of transport often seen as an environmentally-aware and health-conscious option but perhaps only for those 'keen' on it as a 'lifestyle choice'. What if we created a public realm where hopping on a bike was as normal as walking? This goes way beyond providing 'cycleways', and in fact it is now well demonstrated that cyclists benefit more from reduced motor traffic volume and speed than from the provision of 'cycling facilities' - although still important (NZ Transport Agency, 2004). There are also public image issues, such as debates around compulsory helmets; even some medics oppose them because of the missed health benefits of those put off cycling, and the false sense of security which may encourage risk-taking (Hillman, 1992). Also the thinking behind the 'Frocks on Bikes' movement that is, to normalise cycling, and get away from its perception as athletic males 'working out'.

Walking and cycling aren't so good over long distances and here public transport is more space-efficient than the car. Even with ride-sharing, cars need much more road space per person, as well as parking land in areas where it is in high demand (notably city centres). Much of the Auckland CBD rail loop debate is at cross purposes. While NLTF funding rules tend to focus on 'transport benefits' such as saved commuting time, 'wider economic' or 'agglomeration benefits' count benefits from larger volumes of people brought into the centre doing business with each other, without needing a car park (APB&B, 2010).

All this has implications for continuing professional development. Planners haven't tended to focus on some of the areas alluded to above, which are sometimes fluid and contentious. This requires exploration, critique and debate, not just familiarisation with established knowledge – although planners do need to start with a basic knowledge of areas they may not have previously explored.

Transport planning, as an 'orphan child', is searching for a parent. I hope planners will 'adopt' and 'bring it up'.

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On Compact Cities

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1. INTRODUCTION

Planners of the nineteenth and early twentieth centuries reacted to the overcrowding, disease and general poor quality of life in cities by reimagining the urban form (Hall, 1992). Cities became more decentralised, living spaces more open, and accessibility to green spaces more readily available. With the almost universal uptake and utilisation of the motor vehicle in a large portion of western societies post World War Two, massive decentralisation and suburbanisation on the ever-expanding city fringe occurred and still continues today. The sprawling development has often been demonised as "sprawl," a term that has become axiomatic for unsustainable growth. Sprawl has overtaken prime agricultural lands, destroyed ecosystems and habitat, added to infrastructure costs and is responsible for masses of greenhouse gas emissions due to the necessary transportation issues that arise from this type of expansion (Beatley, 2000). Over the last generation, there has been a push back to the urban centre with the concept of the "compact city" at the vanguard of a cohort of concepts that relate to a greater population density and a more liveable urban environment. This essay will argue that, while there is merit in the concept of the compact city, in many instances the reality of the situation means that all that glitters is not necessarily the gold of sustainable development. In this piece, a definition of what is meant by the compact city will be given. Following this, a critique of the compact city ideology will be delivered from several angles. While not exhaustive, the critique will examine the more prominent issues associated with the compact urban form. Additionally, the city of Portland, Oregon in the United States will be used to better illustrate the difficulties and issues surrounding the compact city model as set down in the critique. This essay will, due to the need for brevity, largely ignore the compact city from the viewpoint of developing nations where a myriad of additional complexities exist, and will instead focus on the developed world.

2. DEFINING THE COMPACT CITY

There is not an exact and satisfactory definition of what comprises the compact city that is readily presented (Neuman, 2005). However, descriptions of the compact city typically give characteristics and functions of the manipulation and containment of the urban form, so as to obtain improved sustainability in the realms of environment, society and the economy. Characteristics and functions include:

- Well-connected and accessible communities facilitated by strong public transport options in addition to quality walking and cycling infrastructure. This aspect of the compact city is widely hailed for eliminating unnecessary vehicular movements and in doing so, reduces carbon emissions, creating a healthier society that is more active and more interactive with one another.
- A mixture of land and building uses to promote high levels of residential and employment density. The removal of zoning restrictions, within reason, is encouraged to allow for the mixing of business and residential use. This in turn supports a diverse, integrated and lively culture as people are attracted for different reasons due to the varied nature of what is on offer in the city.

- The renewal and repurposing of industrial lands as well as infill projects for commerce and housing. This permits existing infrastructure such as for water, sewers, roads and electricity to be used. Additionally, this increases population density and preserves land on the urban border (Neuman, 2005; Burgess, 2000; Burton, 2000; Jenks, 2000; Thomas & Cousins, 1996 Westerink et al, 2013).

The compact city concept may be implemented at differing scales, from an entire metropolis through to an unconnected town and a single neighbourhood (Gordon & Richardson, 1997; Westerink et al, 2013).

3. CRITIQUE

Perhaps the most heralded aspect of the compact city from a sustainability viewpoint is that of the energy saving and carbon reducing benefits, as well as lower traffic volumes due to the reduction in vehicle movement. The mixed use aspect of compact cities allows for most needs to be satiated nearby, whether groceries, a movie, a doctor's appointment or a simple cup of coffee, and the need for independent vehicle travel is said to be much reduced when compared to suburban areas. Champions of the compact city assert that high-density environments can provide the critical mass necessary to make public transit work efficiently to create substantial energy and emissions gains (Burton, 2000; Duany, Plater-Zyberk & Speck, 2001; Newman & Kenworthy, 1999). However, research into this aspect of the compact city finds that there is evidence to suggest that this is not the case. Analysis of a 1995-96 Department of Transportation study conducted in England showed that compact urban forms in themselves had no significant influence on private vehicle use or the length of trips taken (Williams et al, 2000). It notes that planning policy variation can have some impact but has the potential drawback of restricting mobility overall. The effect of personal choice and preference on travel behaviour is also discussed, using the examples of specialist employment, recreation and shopping as means of drawing people out of an immediate area and causing more travel. Jarvis (2011) contends that it is naïve to consider that urban form alone can reduce vehicle usage to the claimed extent. She cites the complexity of modern family living, the requisite need for a family to have two incomes and the basic practicalities of life as obstacles to both social and environmental sustainability in the compact city. She states that when these issues are considered, there is no difference in the number of private vehicle trips undertaken. Gordon & Richardson (1997) opine that compaction can actually increase private vehicle use. They note that the shorter distances to services and amenities made possible by the compact urban form make private travel less expensive and more convenient than public options, thereby actually *increasing* the number of trips taken. Neuman (2005) takes a broader approach, reviewing considerable literature and empirical studies on the effects of compact city approaches to transport. He asserts that claims of reduced vehicle trips and energy consumption are ambiguous at best and that the results of various studies on the matter are often inconsistent in their results. Melia et al (2010) identify what they term the "paradox of intensification." This paradox is in essence that while compactness and population intensification will reduce the number of vehicle trips per person, the overall concentration of vehicle traffic will increase leading to deterioration in local environmental conditions. A doubling of population density will not halve the number of vehicle trips taken. In fact, studies show that doubling in density would only reduce vehicle trips by 5-7% (Gordon & Richardson, 1997; Melia, Parkhurst & Barton, 2010). The works outlined above all lead one to the conclusion that claims surrounding increased environmental sustainability specifically relating to vehicle usage are flawed and that the opposite of these claims may well be true.

Proponents of compact city philosophies often point to the improved social conditions that occur in higher density areas. They point to increased and improved social interactions, safer communities, better access to facilities and a greater mix of housing opportunities that allow for a greater homogenisation of social and cultural backgrounds (Burton, 2000; Duany, Plater-Zyberk & Speck, 2001; Newman & Kenworthy, 1999). When looking at the issue of social equity (the way in which a city distributes associated costs and benefits to its residents), the compact city is often given a free pass without

due scrutiny (Burton, 1997). Burton (1997) found that the term "social equity" was too broad when trying to establish the correlation with the compact city concept. Instead, to be more accurate, social equity needs to be broken down into constituent parts. Only on an individual basis can the relationship between compactness and each element of social equity be established. Burton found that the only true measures of social equity were when intervention in the neoliberal housing market structure took place to provide social housing in close proximity to services and facilities, and thus protections and security of tenure to those at the bottom end of the socio-economic ladder. This is a point expounded upon by Gordon & Richardson (1997) highlighting the fact that housing affordability in many compact communities, as compared to more standard suburban areas, is considerably worse than the average in their findings. Increases in house prices in compact cities is due to constraints on land use that do not allow for expansion into Greenfield spaces – expansion that would otherwise loosen up land supply, reducing demand and keep purchasing costs lower (Gordon & Richardson, 1997). This point reinforces Burton's position that without the use of public funds to subsidise housing, the compact form does not increase social equity.

Other measures of social sustainability claims within compact cities are also open to criticism. Bramley et al (2009) undertook empirical research that examined five British cities for neighbourhood pride and attachment, social interactions, safety, neighbourhood, environmental quality, satisfaction with the home, residential stability, participation in groups and use of neighbourhood facilities. Findings suggest that neighbourhood pride and attachment, stability, safety, environmental quality and home satisfaction showed a negative relationship with increased compaction, especially where there was no capacity to access a garden. When access to green space and/or a garden was possible the relationship with density improved. The link between social interactions and group participation with population density was positive but only to a point of "medium" density. When the density increased further, this relationship deteriorated. A similar study conducted in Taiwan also found social sustainability suffered when exposed to increased compaction (Lin & Yang, 2005), indicating that this is not just a British phenomenon. Similar to the Bramley et al study, Lin & Yang (2005) identified complementary planning approaches including the need for sufficient green space. These studies clearly show that communities are complex places and that wielding densification and compactness as broad-brush tools does not bring about social sustainability.

A final issue that confronts advocates of the compact city is of public perception and the reality of choice. In other words, do people actually want to live in a compact urban environment? There is a considerable amount of research that illustrates that while many people like the idea of other people living in compact cities, given the option they would prefer to live in a lower density, "typical" suburban environment. In addition to this are the views and actions of current residents that are content with their existing level of surrounding population density, despite seeing the shift to compaction happen around them. Gordon & Richardson (1997) as well as Neuman (2005) suggest that the idea of suburban living and the associated spatial patterns is now ingrained in American and other Western societies. As such, the development of "sprawl" by developers is simply providing what the market is asking for. This is also apparent in Christchurch, New Zealand where open spaces and low density were deliberately created to escape old world, industrial revolution city living, as built during the second half of the nineteenth century. With this almost instinctive attitude of avoiding cramped living conditions, there is resentment to the idea of compaction and increased population densities, by way of infill developments, that threaten a well liked and established way of life (Vallance et al, 2004). Breheny (1997) provides evidence that people living in the highest densities were the least satisfied with the area that they lived in, while the opposite was true for those that lived in the least densely populated areas. The author shows that over ten times as many people would prefer to live in a detached dwelling as opposed to apartment type living. Breheny goes on to conclude that "people aspire to the very opposite of the compact city"

(Breheny, 1997, p. 7). This is hardly an advertisement for urban intensification. In Dublin, Ireland, it has been shown that the compact urban form and the associated apartment type living conditions are only attractive to a small segment of society. These people were predominantly in early adulthood and affluent (Howley, 2008). When this group was questioned regarding their future plans, almost half responded that they thought they would live in a stand-alone house and a third thought they would live in open countryside or a small town or village. This implies that preferences are strongly weighted toward lower densities (Howley, 2008). As many governing authorities are pursuing and implementing the concept of compact cities, it would seem judicious for them to examine such research as that delineated above and observe that residential housing preferences appear to be at odds with what is being planned and enacted.

4. PORTLAND

The city of Portland, in the State of Oregon in the United States of America, has been at the vanguard of cities in the United States in term of the planning and policy implementation aimed at enacting the core principles of the compact city. Founded in 1845 at the confluence of the Columbia and Willamette Rivers, Portland, now a city of almost two million inhabitants, has for the past 40 years been the largest ongoing example of the compact city movement in the United States (Abbott, 1983; Beatley, 2000; Gibson & Abbott, 2002).

In the late 1960s and early 1970s, energy that was going into the civil rights and anti-Vietnam War movements in Portland began to shift to a more local level. Activists saw concerns rising in Portland about the decay and potential collapse of the Downtown area as was happening in other cities throughout the United States (Abbott, 1983). In reaction, an alliance of citizen advocates, city officials, downtown business owners, property owners and neighbourhood groups was formed. Together they sought to solve one another's problems as part of a single wide-ranging package rather than in piecemeal fashion (Abbott, 1983; Gibson & Abbott, 2002). In 1972, through negotiations and trade-offs, a strategy involving improved public transport and parking, retail reinvestment and the formation of more appealing public spaces and street scaping, was agreed upon (Gibson & Abbott, 2002). This strategy was the genesis for Portland to move along the path toward the compact city model. Another solidifying feature that pushed Portland in the direction of compaction was the State mandated Urban Growth Boundary (UGB). The UGB in Portland came into effect in 1980. The UGB sets the margin for where infrastructure and services are placed to give surety for development and business decisions, to protect farm and forest land and encourage infill projects, and to redevelop and rejuvenate core urban areas (Metro, 2013). The Portland UGB has been "loosened" on multiple occasions to allow for the controlled expansion of development when it has been deemed appropriate, as the State mandate requires 20 years supply of land be available. Between 1979 and 2000, an additional 6000 acres of land was released (Gillham, 2002).

Portland continues on its path of compaction. Since 1972, many seemingly radical actions have occurred to create a city inline with the ethos of the compact city doctrine. Examples include a six lane highway that followed the river being removed and replaced with a public park, the removal of a downtown parking building to make way for a civic square that is used for many cultural events, and federal funding to the city for highways was diverted to create a light rail system that has since expanded from its original 15 miles to more than 52 miles with further plans for expansion (Abbott, 1983; Gibson & Abbott, 2002; Beatley, 2000; Gillham, 2002; Metro, 2013). In addition to the light rail system, a network of pedestrian and cycle-friendly access ways was created with over 149 miles now in use (Beatley, 2000). Infill housing projects were made necessary as a result of the UGB. In the twenty years from 1978 to 1998, the average house land lot reduced by over a half, from 12,800 square feet down to 6200 square feet (Gibson & Abbott, 2002).

Portland is regarded as the “poster child” of U.S. cities with regards to sustainable development and the compact city design. It is hailed as a model example for other cities to

follow. The virtues of Portland's effective public transport, vibrant urban core and neighbourhoods, as well as its pronounced walkability and cycle-friendly nature are often espoused as cutting edge and highly sustainable (Beatley, 2000; Gibson & Abbott, 2002; Gillham, 2002, Richardson & Gordon, 2001).

However, research exists that questions this notion for Portland, much of it similar to the earlier overall critique of the compact urban form as a planning strategy. In a comparison study with 32 other similar sized metropolitan areas in the United States, Jun (2004) found that Portland's UGB failed to control urban sprawl or to significantly reduce private vehicle usage. The study found that Portland was in the top third of the 32 metropolitan in terms of urbanised land area and placed 15th in terms of population density.

In another study, Richardson & Gordon (2001) are scathing in their analysis of the effectiveness of Portland's compact growth strategies. Their study compared Portland with Los Angeles, often cited as being notorious for sprawl and air pollution due to vehicle use. Evidence presented by these two authors showed that Portland is less densely populated than Los Angeles with 3021 and 5801 people per square mile respectively. Additionally, the study shows that there is 2.8 times more road length per capita in Portland and commute times in Portland increased 19 percent between 1992 and 1999, whereas the increase in Los Angeles was only 1 percent over the same time period. The study even showed that Los Angeles had become more affordable than Portland in terms of housing and directly related this to the "choking effect" (Richardson & Gordon, 2001, p. 17) of Portland's UGB.

Unfortunately, even the social sustainability aspect of Portland comes under scrutiny. Along with the urban renewal policies has come an inevitable level of gentrification. Gentrification has driven low-income residents out of their often longstanding neighbourhoods as they become more desirable to a more affluent set. This is illustrated in the traditional African American neighbourhoods of North-eastern Portland. As the area became more desirable, there was an influx of non-blacks, changing the composition of the area (McGee, 2010). While creating more diverse cultural and ethnic mixes, the long-standing communities were forced to disperse, leading to a breakdown in networks and social institutions. Richardson & Gordon (2001) also hypothesise that monies that would normally have been used to improve public services such as health and education programmes were siphoned off for use in the campaign of compacting the city. If true, then this surely reduces the social equity in the city by denying services to portions of the population.

Finally, the issue of choice again comes into question. Evidence on population growth in Northern Oregon where Portland is located, as well as Southern Washington State, indicates that the UGB has slowed population growth in Portland. Evidence shows that communities outside of the UGB have grown much faster than Portland. Across the Willamette River in Vancouver, Washington, a town that is in essence part of Portland but under a different jurisdiction absent the planning policies of Portland, population growth far outstripped Portland. Vancouver, in 1990, had one-tenth the population of Portland yet added more residents over the course of the following decade (Richardson & Gordon 2001; Jun, 2004; US Census bureau, 2000). This is surely an indication that people desire to live in an environment that is less densely populated. Even within the UGB, there is dissatisfaction amongst members of the public with comments such as "Metro planners moan about the suburbs as if they were a disease" (Gibson & Abbott, 2002, p. 432) and the recalling of council members (by voters in classic suburban districts where compaction is not favoured) that supported the compaction policies in Portland (Gibson & Abbott, 2002).

5. CONCLUSION

The philosophy surrounding the compact city is alluring as a means of implementing a sustainable urban space. There are certainly merits in the concept. However, the literature on the subject indicates that compaction on its own does not have the desired effects. Or, if the positive effects are present, they are certainly not on the scale that some may suggest. The ample literature on Portland illustrates in very real ways

why the compact city concept is a flawed model of planning. This essay should not be misconstrued as advocating for the status quo of ever expanding urban areas. Instead, this piece merely serves to illustrate that creating a sustainable city is a problematic issue that is not easily overcome simply by use of the single instrument of compaction. Instead, multiple approaches that are specific to the circumstances of the individual urban area are required for success. Rather than plunging headlong into compaction, planners and city designers can use it as a complementary tool to provide residential environments that are suitable throughout a person's life and give an improved quality of life to all.

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Why New Zealand dairy farms are not socially sustainable

Phil HOLLAND

Prime Minister Helen Clark made the following bold claim in her 2007 statement to Parliament:

"*I believe New Zealand can aim to be the first nation to be truly sustainable – across the four pillars of the economy, society, the environment, and nationhood*" (Clark, 2007).

These are fine words but what do they really mean? In this comment, I explore the social sustainability of New Zealand dairy farms.

Since the Agenda 21 Report (United Nations, 1992) defined the three pillar model of sustainability which included social sustainability as well as economic and environmental sustainability, there has been a great deal of debate about what the term social sustainability means. This debate centres on what socio-political indicators should be measured (Littig & Griebler, 2005). Becker et al (1991) define it as the "*persistence and preferably improvement over time of desirable and necessary characteristics in people and their communities*" (Becker et al, 1991 p.4).

In 2007, Dr Michael Cullen, the then Minister of Finance, in a speech to the Auckland Chamber of Commerce, defined these desirable and necessary characteristics in the following statement:

"*The things that actually matter to people are time with family and friends, a sense of contribution through work, being part of the community, the ability to trust each other, and having good health, just as much as financial situation*" (Cullen, 2007).

The ability for everyone in a society to fulfil these simple goals, highlighted in Cullen's speech, over time will mean that a society can endure and maintain sustainability. Using these aims, I will assess why the dairy industry is not socially sustainable. I have specifically chosen three goals where the industry fails to deliver social sustainability. These are as follows:

- Time with family and friends
- Being part of a functioning community
- Health effects

The first question that needs to be addressed is that of whether life as an employee on a dairy farm in New Zealand in 2012 provides a sustainable amount of quality time with family, friends and for the pursuit of personal non work goals. DairyNZ, the industry good organisation which is funded by a levy on milk solids, has created a website called 'GoDairy' for the purpose of promoting dairying as a career. On a page headed 'Life on the farm' a typical day's work on a dairy farm is described. It starts at five a.m., includes two one hour breaks and finishes at five p.m. Therefore a ten hour working day. The website goes on to say that sometimes there is office work to be done in the evening and some night's sleep can be disrupted by the need to help cows calve! In addition to these long hours is the fact that a typical dairy farm worker will work for 11 days and have a two day 'weekend' as exemplified below in a typical example of a dairy industry job advertisement.

Our client this upcoming year is working on a 750ha farm with cow numbers at 2000. Roster for this farm is 11 and 2 with shared Quarters (Agstaff).

These two facts combined mean the accepted industry norm is that employees are working ten or more hours a day for 11 consecutive days with

only a 48 hour break between stints. Therefore an average of at least 60 hours a week. Independent research paints a more extreme picture with an analysis of census data showing that 32 percent of staff in 2006 were working more than 70 hours a week (Wilson & Tipples, 2008). New Zealand led the world in the implementation of a 40 hour working week and the current accepted industrial norm is still 40 hours (Blackwood, 2007). In 1840, Samuel Parnell, widely credited with founding Labour Day, famously said:

"There are 24 hours per day given us; eight of these should be for work, eight for sleep, and the remaining eight for recreation and in which for men to do what little things they want for themselves" (NZ History Online, n.d).

The right to earn a living wage within 40 hours a week is a fundamental tenet in the New Zealand social contract based on Parnell's simple principle that, to be a fully functioning person, one needs enough non-work time to do it! The dairy industry promotes itself as a family friendly working environment in its television and web-based advertising as demonstrated on the GoDairy website as follows:

"As a dairy farmer, you will know that you are doing something honest and worthwhile – for yourself, for your family, for your community and for the people who will benefit from the most important thing you produce – milk" (GoDairy 2013).

This family friendly sentiment is contradicted elsewhere on the same website by both their own admittance of what 'normal hours' are on most farms (GoDairy, 2012) as well as the census work hours data (Wilson & Tipples, 2008). The simple fact is that a worker cannot be an effective and fully functional member of a family when working the amount of time required by these jobs. Twelve years of personal experience in dairying has shown me that the level of exhaustion and lack of time, means that your family and partner miss out on a great deal. Couple this effect on the family, with the personal cost on the worker, and it is obvious that this level of work is not sustainable.

One major effect of the hours and conditions of work, and the second point that I would like to discuss, is that dairy farm workers and owners are often unable to commit to, and fully participate in, local community organisations and events. Dairy farming work routines require a level of commitment and presence that generally means that workers need to live on farm (Pangborn cited in Tipples, 2010). Sue Trafford expresses the reality of the dairy farming life thus: "*this can isolate workers from social activities although tiredness and unsociable hours often result in workers having little energy and time to socialise anyway*" (cited in Tipples, 2010). This leads to less functional communities and a downward spiral of nonparticipation and unavailability.

In the 12 years I was involved in farming in the Rotomanu/Inchbonnie area, the community lost three schools, a community hall, two churches, a netball club, twilight cricket, a basketball league, and the number of events at the remaining community hall dropped from upwards of 20 events a year, to one a year. While some of this change may be put down to the intensification of the local dairy farms, I believe much of this change can be attributed to increased work expectations. Compounding this is the growing transience of the work force with turnover rates amongst staff as high as 40 percent (Tipples, 2010) and unpublished data putting this figure as high as 60 percent with up to 15 percent leaving the industry each year.

In my time as a dairy farmer I witnessed a change - from a relatively stable local workforce to a high degree of transience, with each new wave of arrivals bringing with them a new set of problems. This pool of staff is increasingly less experienced and often brings with them many social problems, in particular, drug and alcohol issues. I observed Codeine and methamphetamine use added to the mix, along with increased alcohol and cannabis usage. As the divide between the owners and the workers has increased, the dishonesty (on both sides) has also increased; communities where houses went unlocked for generations and access to land was open, now drip with padlocks and 'no trespassing' signs.

What then of the health implications of dairy farm work given the long hours and high levels of stress that are accepted as the norm within the industry? This is the third and final point that I would like to discuss.

The negative health effects manifest themselves in many ways and have many causes. For the sake of simplicity, I will restrict myself to discussing three consequences that flow directly from the long hours and high stress involved in the job. This discussion is with the caveat that the three discussed are just a small sample from a very long list. The three most obvious problems are as follows:

- Accidents
- Obesity and medical issues
- Mental health issues

The dairy industry is a dangerous place to work. This is demonstrated by the Accident Compensation Commission (ACC) levy which is based directly on injury and death claims in a sector. It is $3.01 in the dairy industry whilst in the coal mining industry (which is perceived by the public as a dangerous industry) it is much lower at $2.23. The reasons for this are many, but analysis of slips, trips and falls data has identified that stress and fatigue are an underlying contributing factor in many ACC claims in the industry (Bentley & Moore, 2003).

The recent accident prevention television advertising campaign: "Rural People Die on Rural Roads" highlighted the high death and accident rate amongst rural people. The rural macho culture combined with fatigue, and often alcohol, is a deadly mix. The Waikato Child and Youth Mortality Group in their hard hitting report *Preventing Rural Deaths* states "…*fatigue, for example, is one of the most significant risk factors and is something dairy farmers or sharemilkers have to deal with every day*" (Waikato DHB, 2012).

Obesity and other health problems are linked with high stress and lack of sleep. Research at the Harvard Medical School states quite bluntly that there is a causal link between weight gain and sleep deprivation (Patel 2008). The industry's own research has shown that health outcomes are poor amongst dairy farmers. In a survey of 800 dairy farmers, DairyNZ found the following:

- 67 percent had not had tetanus injections.
- 79 percent did not wear helmets on bikes.
- 27.5 percent experienced pain that interfered with work or sleep.
- 9.6 percent were smokers.
- Blood glucose levels (an indicator of potential to develop diabetes) averaged 6.2 mmol/litre (normal is 3.6 – 5.8 mmol/litre).
- 44 percent had systolic blood. pressure > 140mmgHg (desirable level is 90 – 119 mmgHg).
- 48 percent had cholesterol > 5 (desirable level 4).

(Inside Dairy, 2011)

Lead researcher Mark Paine of DairyNZ stated "*This information is just one element. There are more insidious issues emerging around chronic stress and fatigue on farms…*" (Inside Dairy, 2011).

This research in itself is a damming indictment. On the basis of health alone, it raises doubt that the dairy industry may not be sustainable for many communities and individuals in its present form and with its current culture. There is also the possibility that many of these problems are being masked by the continued importation of foreign workers (Trafford& Tipples, 2011).

Finally in the section on health, we must discuss mental health, an issue that is just starting to come to the fore in dairy farming circles. The Ashburton Guardian led their news on 20 August 2013, with the headline *'Rural suicide rates massively higher than cities'.* This was a response to both the growing disquiet in rural areas about the subject, and the release of a Ministry of Health (MoH) report, *Suicide Facts* (MoH, 2012). The report revealed the total suicide rate for those residing in urban areas at 10.8 per 100,000 population compared to 15.9 for those living in rural areas. This was the first time MoH has reported the figures with the urban-rural split. Again, bitter personal experience showed me that the toll is too high: two suicides, two children under five killed in

farm accidents, three deaths in car accidents. These combined with numerous major and minor accidents, are part of my memory of the 12 years I spent in the dairy industry. Sustainable? I think not.

The on-going tendency of the farming sector, founded in the traditional staunch rural attitude, is to "tough it out" (Lueders Bolwerk, 2002; Rosmann, 2010). Add to this a culture of silence where the issues creating stress and depression are often not addressed. Therefore solutions are not often found (Spiers, 2011). In 2008, a local doctor, in a personal communication with me said "*Depression is endemic in the dairy farmers in my practice*". He went on to say that he felt that he was only seeing the "*tip of the iceberg*".

At this point I feel that I want to relate some of my personal experience. I worked and lived in a small semi-isolated dairy farming community for 12 years. The community was made up of about 30 farms and about 70 households. In that time, five people had major mental episodes which required extended periods of hospitalisation. Local health professionals were so concerned they called a public meeting where the issue was discussed. A group of ten locals 'came out' and shared their personal stories of their struggles with mental ill health. At one infamous local school board meeting in 2005, the eight members of the board (including myself) compared our experiences and dosage rates of the anti-depressants we were taking. Whilst none of this necessarily confirms a causal relationship between the dairy industry and poor mental health, it certainly gives rise to concerns about that relationship. Some in the industry may argue that *'it is no worse than in any other industry*' or '*it is just a reflection of what is happening everywhere in our society*.' These attitudes may well be valid, but the fact remains that mental health is a problem in the industry. Where ever the cause may lie, it adds to the social unsustainability of the industry to the detriment of the many of the individuals that work in it.

In writing this piece I have tried to find evidence that the New Zealand dairy industry is addressing this issue. Apart from the rosy view portrayed in their "Go Dairy" advertising campaign I have found nothing. By contrast, I have found several reports and documents that point to the fact that the human side of the industry is in crisis (Speirs, 2011; Inside dairy, 2011; Lueders Bolwerk, 2002). The only thing preventing a total social breakdown within the industry, is its ability to recruit new "cannon fodder" from the unemployed and migrant labour pools (Tipples et al., 2010). This means that the level of burn out, ill health and dysfunction within the industry is masked. The industry as a whole and in its individual parts fit perfectly Coser's (1967) description of "*greedy organisations*". These "*make total claims on their members*" and "*attempt to encompass the whole personality*''. In their greed they insist on "*exclusive and undivided loyalty*" and try to "*reduce the claims*" of their workers and members. *"Their demands on the person are omnivorous"* (Coser, 1967).

Now as I look back as a 'survivor' of 12 years in the industry, at my own struggles with depression and obesity, the breakdown of my relationship, the family time and opportunities that my children missed, I know that I traded my health, my future and my children, for half a million dollars. That cost was too high.

I have painted a pretty bleak picture of the dairy industry as it behaves at the moment - but it is not without the possibility of redemption. DairyNZ continues to fund research into these areas and is valiantly trying to change farmer behaviour. Many small groups of volunteers and professionals spend countless hours picking up the pieces. While there are many 'decent employers' and 'happy workers', the fact remains that the industry retains its 'dirty secret' – a festering underbelly of dysfunction and disaffection. Until this is addressed the industry will remain socially unsustainable.

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Reflections on Residential Living and Eco-Villages

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In New Zealand there is a growing demand for affordable homes due to immigration, kiwis returning from overseas, and in Christchurch the loss of approximately 10,000 red zoned homes as a result of the earthquakes. The media has featured all sorts of ideas to address the shortage - from traditional three bedroom brick or plaster homes to innovative and more resilient container type homes. Container dwellings are thought to be difficult to establish despite the ease of buying them second-hand and fitting them out personally or of building container type homes assembled in factories to maximise efficiencies. In the New Zealand environment, container type accommodation provides mobility and resilience, but perhaps does not provide the desired outcome of meticulously designed subdivisions. It often seems that developers in New Zealand, as in many Anglo-Saxon countries, are able to dictate the rules in terms of the home types and landscapes they want to create and sell. Their main objective is usually to maximise profits, not necessarily to create the best possible community environment or low cost options for people who wish to own their own home on their own section but are not prepared to spend a lot of money on designer homes. The current residential living saga is very market driven without much freedom of individual expression.

Developers increasingly protect their subdivisions through covenants to avoid attracting eccentric individualists wanting an affordable home or maximising the use of the land by having a small one bedroom home (formed by a set of two containers). New Zealand developers could be accused of encouraging a nanny state within the residential housing environment and it seems authorities do not mind.

Interestingly enough, the permaculture movement for example seems to be a challenge to this 'developer' led paradigm. These communities have a strong focus on living in a more resilient and self-sufficient way by looking at minimising their natural resource use while maximising the utility and reuse of resources. These communities came together because of their different ways of viewing society, and in many cases they have been alienated from the wider community for their perceived 'unconventional' way of thinking. This bottom-up communal society has gained a lot of momentum in the last few decades, not just from the individuals and families seeking greater depth from their living community but also through the efforts of individuals promoting the activities of these communities. For instance, a thriving entrepreneurship has emerged in education. Courses on more resilient living with topics such as permaculture, off-grid electricity generation options and organic farmstays are just a few examples. It is relevant to acknowledge that though this more community orientated residential living is perceived as "fringe", it is likely to be the driver behind the growing transitional town or eco-village movements that are slowly gaining popularity.

The term "eco-village" is increasingly observed in the New Zealand media without a clear understanding of what the term means. Eco-villages are defined as communities aiming to be more socially, economically and ecologically sustainable. The community size is not relevant

as such, as the range goes from small to large. The Earthsong Eco-village (Figure 1) in Auckland is small compared to the large-scale BedZED (Figure 2) community in London. The Beddington concept is based on Zero Energy Development. The basic idea of the eco-village is applying sustainability and ecological principles across the board and implementing these by taking a bottom-up approach.

Figure 1: Earthsong
Source: (http://www.earthsong.org.nz)

Figure 2: BedZED, London, UK
Source: (http://www.peabody.org.uk/mediacentre/casestudies/bedzed.aspx)

As mentioned before, the eco-village concept is neither new nor specific to any one country, though it appears to be more common outside socialist or communist countries. Historically, it is highly likely to have been derived from the sixties and seventies commune and hippie movements associated with the upcoming of the green movements and Green Parties that became established in most European countries in the late 1970s and early 1980s. At the same time, a number of universities around the world, particularly in Europe, encouraged holistic thinking by integration of degrees in architecture, civil engineering and social sciences for example, Gesamt-Hochschule Kassel (GHK).

GHK was the first university of its kind in Germany, integrating many disciplines and concepts. It was later followed by other traditional universities like Dortmund or Kaiserslautern. The academic staff employed at the time came mainly from the 1960s movements and the Land of Hessen was the most progressive in terms of a Green movement at the time. Politicians like Joschka Fischer, leader of the first German Green Party, came from Hessen and had a large influence on Kassel University. The adjunct agricultural university "Witzenhausen" was renowned for leading technology into solid waste management including research into composting technologies. Kikuth was one of the leading researchers to emerge from the European university movement in the mid 1970s. He developed algae water treatment systems for small communities independent of city treatment systems, and one of his colleagues became famous for mud brick adobe houses built in the first eco-villages.

These new concepts were implemented in small eco-villages until they gradually became fully accepted by the wider community as a result of the green movements across Europe that were, at the time, primarily focused on environmental issues. These movements emerged strongly in the Netherlands, Scandinavia, Germany, and Austria and were subsequently adopted in other European countries.

Despite studying in Germany under the influence of famous architects like Schinkel, Karman, Mies von der Rohe, Niemeier, Le Corbusier, Eiermann, Jahn, Otto and Behnisch, the trend of picking up the principles of ecological planning in terms of technology and infrastructure took up its momentum in the early to mid-80's.

New Zealand can learn a lot from the many European examples that have been developed over the last 10 to 30 years. Some are called *car free cities*, like "Vauban Siedlung" in Freiburg. And in a definite sign of maturity, the "Nordweststadt" in Karlsruhe is not even mentioned per se as an "eco-village" development since the concept of planning infrastructure for people and not cars and requiring excellent public transport systems to be integrated prior to construction is now a basic principle. This Transit Orientated Development (TOD) is still largely ignored in New Zealand apart from perhaps by Len Brown, the Auckland City Mayor.

From discussion with peers, it is obvious that the perceptions of eco-villages go in many directions; I like the principles of "Earthsong" in West Auckland and the newly developed "Braemar" concept in Nelson as they provide a lot of freedom and space to the people living there, whereas others will deny they are "eco-villages" because they are not integrated into a city concept since both are located outside cities and require more transportation than someone living in a city apartment.

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Interview with Crile Doscher – GIS blogger

Rachel WILSON

Lincoln University graduate in Bachelor of Environmental Management and Planning, 2013

RACHEL WILSON: We should probably start with your name and position here at Lincoln University.

CRILE DOSCHER: I'm Crile Doscher, Senior Lecturer in GIS - Geographic Information Systems.

RW: Great. Now, why did you decide to start a GIS blog?

CD: Well... that's a good question. It was mainly because I know there are a lot of people out on campus who use GIS, but they don't necessarily know about each other. So it's kind of trying to build up a community. And we've tried various things over the years to do this, and we just thought this would be a nice way to try and bring it all together. 'Cause a lot of the time I get lots of questions, lots of similar questions, so if I can answer them in one go - it makes my life a bit easier. I don't have to say the same thing over and over again. And it's already working, which is good. I guess ultimately we're trying to bring GIS users on campus together.

RW: So it's trying to build connections.

CD: Yeah. Yeah, it is.

RW: And where can we find this blog?

CD: So it's on the Lincoln website, www.lincoln.ac.nz/conversation/gis.

RW: How do you get the word out about it?

CD: Basically by email. I've got a list of people, and whenever I update it, I send a message around to them - and the list is basically just people who I know are GIS users, or who have an interest, or who would like to be interested. So whatever gets updated, I just send it on to them.

RW: What programs do you use for it? Is it mainly the Arc programs, ArcMap and so on?

CD: Yeah. I know there are some people out there who don't use it - I mean it's mostly about Arc GIS, but I try and keep the blog mostly generic. I use mainly the ArcGIS suite, yeah; but some people use R, some do what they can with Google Earth, Google Maps, and there are others around... I'm open to anything. But since most of what we teach is Arc GIS, it makes sense to use it on the blog.

RW: Just out of interest, how many GIS papers does Lincoln have?

CD: Two undergrad and two post grad. Erst 202 and 310, and then 606 and 607. I take 202 and 606, and then Brad Case and I - he's over in Ecology - we take the other two.

RW: And with the blog, do you collaborate with other people, or is it more an individual thing?

CD: I try to collaborate, I mean it's still early days. Brad's really busy right now, once he gets some things out of the way he'll probably start doing more. And I'm hoping we'll get guest bloggers on. I try and update once a week, I'm going to try and maintain that. The blog's only been going about five weeks, so it's early days yet.

RW: Okay, so it's only started up this year?

CD: Yeah, just recently.

RW: Right. And what's your aim with the blog? Are you wanting to inform people, or just show off your skills...?

CD: Well of course that's part of it. *Laughs* No, it's really just... I see GIS as a really valuable tool for a lot of people, and so I'm trying to see this as a way to facilitate people using it, really, and as I said to try and hopefully bring people together a bit. There really are a lot of people out there using it. I can do one blog post and it tells people how to do something, and then everybody knows. So I'm hoping that eventually it'll be people going, "Can you talk about this?" and that way I know that I'm responding to what people are interested in. So the aim I guess is just to make GIS more accessible.

RW: Sounds good to me. But you do like showing off your skills with GIS.

CD: *laughs* Well, I don't know how much I'm showing them off, really. But I certainly - I mean if I can do it, anyone can do it.

RW: You have more experience, though.

CD: Yeah, true.

RW: On the blog, is there a section for comments? Questions?

CD: Yeah. There is, yeah. So if people are having trouble with it, they can come back to me and say "I've run into a problem here, what do I do?" I think that would be great. 'Cause then everybody gets to see it. And in fact on the last post, somebody put a comment in saying "Oh, can you talk about this," and that's great, that's - I want to see that happening.

RW: So you are getting conversations started.

CD: Hopefully, yeah. It's fairly small still, fairly new.

RW: True. So what projects do you have on at the moment?

CD: Oh, gosh... Heaps. The beauty of it is there's all sorts of stuff in all different areas. We've got one project on teen smokers, one looking at the activity of schoolchildren, we've got a big project on about Lake Forsyth, a whole lot of stuff about internet mapping, yeah, there's a fair bit going on.

RW: Do you have a pet project?

CD: They kind of come and go, you know... Flavour of the month type thing. Projects are intense for a short time, and then they tail off and another one comes up. It changes from week to week. Which is kind of the beauty of GIS, really, we're working in geomorphology, engineering, social science, health science - it's all over the place.

RW: That teen smokers project - tell me a bit about that.

CD: I'm working with a colleague down at Otago, looking at the relationship between tobacco outlets and secondary schools, if there's any correlation in the locations, schools with outlets near them vs. schools without outlets, and if there's any impact there. Trying to reduce teen smoking. Do we need to have zoning regulations in place to say you can't have a dairy or a tobacconist within a certain distance of a school, that sort of thing. So we know where the schools are, we can map where the outlets are, and factor in a walking distance, what the smoking rates are, and look at the relationships there. We're looking right across the country.

RW: So there's actually a lot of practical applications: it's not just a gimmick, a party trick.

CD: Absolutely. Anything where you might need a map to understand it, GIS can help. The question is where doesn't it help.

RW: So it's pretty much unlimited.

CD: Yeah, I think so. 'Cause it goes beyond just a map, and you ask questions, look for relationships, try and understand what's happening.

RW: Okay. Cool. I think that's all my questions. Did you want to say anything else?

CD: Well, just that I hope people find it useful, and if they have anything they want to see on the blog, let me know. Email crile.doscher@lincolnuni.ac.nz.

RW: Excellent. Thank you for your time.

CD: Thank you.

LUPA – Lincoln University Planning Association: The 2013 Year

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ABSTRACT

A regular addition to the Lincoln Planning Review is the update from the Lincoln University Planning Association. LUPA supports all those students studying or with an interest in planning at Lincoln University. The club has a primary goal of bridging the gap from academic studies and being students, to the diverse and practical world planners operate in.

LUPA (The Lincoln University Planning Association) has had a great year building on the work of Jess Bould, Holly Gardiner and Alyce Melrose. The club continued to grow and offer planning students' excellent events, network opportunities and more. On the leadership front, I have taken over the president role of the club and as Lincoln University's student representative on the Canterbury branch of NZPI. Sara Sahagian and Kimberley Freeman have stepped up to the roles of treasurer and secretary respectively, bringing new ideas to the club with them.

LUPA's first event of the year was a successful 'Meet the Planners' on the 13th March in conjunction with the NZPI Canterbury Young Planners. This speed dating event saw nine young planners volunteer their time to answer questions from students. There was a great turnout with over thirty students participating. Thanks to all those involved, namely Claire Lindsay who helped organise this! A brief snapshot of the event can be seen in Figure 1.

Other successful events held this year included a July screening of the award-winning documentary 'Urbanized' by Gary Hustwitt and an August transport seminar in which Christchurch City Council Transport Planners Michael Ferigo and Ruth Foxon both presented.

Figure 1: Meet the Planners – a speed dating style event held on campus Wednesday 13th March 2013.

On top of this there have been a few social events, and as we near the end of the university year, an end of year function is also planned. Turnouts at the main events have increased and over 100 students now receive the regular LUPA updates and notifications. The LUPA presence at other planning events in Christchurch held by NZPI, the Young Planners group and the young RMLA has also been more prominent.

After a successful year of LUPA events, the club is beginning to look to 2014 considering new event options. Lastly, many thanks for all the continued support and commitment towards LUPA and LPR.

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The importance of NZPI membership to private sector planning consultants and new graduates

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Organisations that restrict their membership to people that have met and maintain particular knowledge and skill standards, and agree to be bound by particular codes of conduct, appear to be generally accepted by New Zealand society as valuable. In some cases there is legislative support for particular professions' certification systems, for instance lawyers practising certificates, registered surveyors and engineers, and the certification of hearing commissioners under the Resource Management Act 1991 (RMA). Others, for instance architects, resource managers and planners, lack such legislative support and consequently it is more difficult to gauge their value.

There are qualitative mechanisms that provide an indication of the value of such professional organisations and certifications. For instance, in RMA hearings, expert witnesses state the basis for their expertise and if they are presenting planning evidence one basis for claiming professional standing is that they are full members of the New Zealand Planning Institute (NZPI). There are instances of hearing commissioners seeking confirmation of an expert's professional membership when they have given planning evidence and in at least one instance I am aware of a lawyer who was frustrated in his desire to lodge a complaint about unprofessional conduct when he found that the self-stated 'professional' planner was not a member of the NZPI.

The extent to which universities are prepared to invest in meeting NZPI requirements to have their course accredited is also indicative of the value of professional planning qualifications. In that context, Auckland, Massey, Lincoln and, recently, Waikato Universities have each invested in establishing four year under-graduate programmes accredited by the NZPI. In addition, each of these universities, and Otago, has a masters' qualification that enables those who have not completed undergraduate planning degrees to complete an accredited post-graduate qualification. A graduate of an accredited degree can obtain 'graduate member' status in the NZPI and after three further years of planning practice, may apply for full membership of the NZPI. Those without an accredited degree can apply for NZPI full membership after seven years of planning practice, but otherwise are only eligible for associate member status (which requires no qualifications or even planning experience and consequently is not recognised as of 'professional' status). Given that the requirements for an accredited NZPI programme are more onerous than ordinary or even other professional (e.g., law) degrees, the value of an accredited

programme is carefully weighed when a University decides to offer it.

In early 2012, Lincoln University decided that it would continue to offer an NZPI accredited Bachelors degree. The decision followed a 2008 NZPI review that recommended the existing accredited undergraduate programme should be re-accredited, but a subsequent change in the NZPI's Education Policy meant that the NZPI Council declined to re-accredit the bachelor's degree.

The reason for this was primarily structural. The then existing Lincoln programme required students to complete a 4-year programme that comprised a 3-year Bachelor of Environmental Management and Planning (BEMP) with a Professional Planning minor, plus a post-graduate fourth year that included courses specified by the NZPI (known as a 3+1 degree). The new NZPI Education Policy, unlike that of equivalent professional planning institutes overseas (e.g., the Planning Institute of Australia (PIA)), does not allow for a 3+1 model. The NZPI also viewed the number of different qualifications through which the fourth year of study could be taken was confusing, especially as none included the word 'planning' in their title (e.g., BEM(Hons), PGDip Resource Studies, MAppSc(Envt Mgt)).

While Lincoln University accepted that a single 4-year undergraduate degree provided a clear path for students to follow to a planning degree it was also aware that students choosing Lincoln University often did not identify professional planning as a career of interest until late in their degree. A stand-alone undergraduate degree in planning might struggle to directly attract sufficient student numbers to justify its existence. Lincoln first year students tend to be attracted by rural, land-based or environmental management issues and tend to see planning as urban-oriented, only seeing it as desirable as they advance through their study. The University saw its planning niche as being the nexus of environmental management, planning and policy and was confident in the quality of its programme, a confidence reinforced by the positive review by the NZPI's own review panel. Developing a new stand-alone 4 year planning degree also went against the then international trend to standardise international bachelors' degrees as 3-year, rather than 4-year. Other NZPI requirements regarding the input to planning programmes are also problematic, especially for smaller-than-Auckland planning programmes such as Lincoln's.

As noted, Lincoln University made the commitment in 2012 to offer a professional 4-year undergraduate degree, the Bachelor of Environmental Planning and Policy (BEPP). The accredited, professional standing of the BEPP meant that it emerged unscathed in an unprecedented 2013 comprehensive review and restructuring of all the University's undergraduate programmes and qualifications. The first intake of students into the BEPP degree was in 2013. In a transitional arrangement with NZPI, students enrolled in the previously accredited programme who complete the fourth year by the end of 2015 meet, the requirements of the NZPI for graduate member status. Students more interested in environmental management than planning, or who are unable to meet the standards required to advance to fourth year studies, can exit with a Bachelor of Environmental Management degree after three years.

THE SURVEY

Seeking re-accreditation was not an easy decision and the usefulness of an NZPI membership had to be demonstrated if it was to gain the necessary internal support. A colleague's

'ring around' of recruitment agencies to get an indication of the value of NZPI accredited degrees reported as follows (edited for confidentiality):

None of them suggested NZPI membership was essential; actually none of them knew off-hand what it was. They suggested a broad based degree with analytical skills and work (or extra-curricular) experience was desirable for - loosely - planning roles. One suggested degrees were more or less seen as an indicator of ability (more than knowing particular stuff) and that employers don't really expect new graduates to have professional membership. An observation is that when jobs are scarce employers are picky and use things like NZPI membership as part of selection. When there are many opportunities, employers are less fussy. Simple supply and demand.

This led some to call the value of NZPI accreditation into question. Observations that several Lincoln graduates, and others, with non-accredited degrees were able to obtain planning and related positions ahead of graduates with NZPI-accredited degrees reinforced the concern that the value of NZPI membership was at least overstated. The difficulty some able and well-performed, NZPI qualified graduates had in obtaining interviews or positions did not help support the value of NZPI accreditation.

Consequently, as part of the decision-making process, a survey was emailed in early 2012 to professional private sector planning companies/consultants listed in the NZPI directory. This survey targeted those private sector organisations most knowledgeable about professional employment, and theoretically most likely to employ professionally qualified planners, to see if the observations regarding council recruitment also held for the private sector. The survey was not seeking to identify what careers Lincoln University graduates went into and specifically did not seek a comparison of the perceived quality of different university planning degrees. The results are therefore of much wider relevance.

The survey started with the above quote and its origin and sought views on this summary. It then asked three further specific questions:

- Whether you consider NZPI (graduate) eligibility is essential for new 'planning' staff in your organisation?
- How advantageous having NZPI eligibility is for employment at any stage (ie in competing with another new graduate or in entry to higher level positions)?
- If our 4 year programme was accredited to the PIA (Australian equivalent of NZPI, which has reciprocal recognition agreements with NZPI) how advantageous would that be for our PIA- eligible graduates in gaining a position in your organisation?

The respondents ranged from some of the largest companies that did planning work to companies who no longer employed staff (but whose answers were based on either past experience or on what they would do if they took on staff).

The general tenor of responses to the views of the recruitment agencies was that as far as council recruitment went, the views of the recruitment agents was probably correct. As one commented, the recruitment agencies were merely reporting their experience and so it was difficult to question their views. However one respondent, with considerable experience in council and private sectors, provided an interesting alternative perspective:

I have had many discussions with recruitment agencies from around the country - many of them thought it was

their duty to try to convince me that the candidate they had was as good, if not better than a candidate with NZPI eligibility. This is because they tend to have more non eligible planners on their books at any given time than eligible ones. This is likely to be because eligible ones are snapped up by employers who recognise the value of this eligibility in the market place. I have spent many conversations with recruitment people trying to explain why eligibility for full NZPI membership is important, but it was always a bit like trying to buy a four wheel drive from a car dealer when all they had was standard drive.

The respondents' views on the value of professional membership to their own (and in some cases, previous) private sector company was somewhat different. The following is a summary of their responses to that part of the survey:

1. Academic ability and personal attributes are the most important features when recruiting new graduates. Virtually no-one requires NZPI graduate eligibility for new graduates, but having completed an accredited programme is an advantage for graduates when an employer is deciding between two evenly matched candidates. Only one person stated that eligibility for NZPI membership would be a decided negative in obtaining employment with them.

2. Eligibility for membership of NZPI is very important/essential for employment at senior levels as a planner because of the credibility it provides in the Environment Court (where a professional opinion is often required to be given) and for reassuring clients of the competence of the staff. Even those not impressed by the NZPI or the quality of NZPI members or their work, noted that they considered membership a 'necessary evil' at this level.

3. The market is a major determinant of the degree to which eligibility for NZPI membership is valuable to a new graduate. In times when there is a shortage of planners the market will take anyone, when there is a surplus of planners they become choosy. Some respondents contested this, however, noting that eligibility is always a requirement for their company.

4. NZPI membership appeared less important for smaller provincial based firms than with larger companies. Those larger companies with nationwide practices tended to be the strongest supporters of NZPI eligibility. Companies in the north of New Zealand also seemed to support NZPI membership more.

Most did not address the last question regarding the employment of PIA eligible members, but those that did were either neutral or indicated that they would not expect someone with PIA eligibility to have the same level of knowledge and competence in New Zealand planning systems and law as they would those with NZPI membership. One even noted that they would probably favour membership of the British equivalent of NZPI to that of Australia. This raises a number of questions about the appropriateness of reciprocal recognition agreements between planning institutes or the understanding of planning as a generic discipline by practitioners. These are issues that may usefully be explored in future research, but will not be further commented on here.

A number of respondents also volunteered comparisons between planners and those who did environmental, resource management, science or geography degrees. The general tenor of these was that those who had done accredited degrees were better at communicating and reasoning in the context of the RMA than were those with other degrees and that planning was

more than just the RMA, which was sometimes not appreciated by people with non-planning accredited degrees. One member, but critic of the NZPI noted "To be fair, they do offer good networking and training opportunities and information for the profession (e.g., planning focus, salary survey, etc), but this has nothing to do with an employee's ability or attractiveness to employers". Significantly, while the recruitment benefits of NZPI accredited degrees may be less obvious at the new graduate level, the clear indication that it is valued for progression to more senior levels sends a clear signal that studying for an NZPI accredited degree is a good long-term investment for a student who is interested in working in the private sector.

CONCLUSION

The overall findings of the survey suggest that NZPI membership only adds real value for a recent graduate when there is a shortage of graduates knowledgeable about planning and planning issues. There are, however, specifically 'planning' positions in, usually large, companies where NZPI graduate member eligibility is necessary. There are therefore advantages in studying for an NZPI accredited degree. It also suggests that where there are larger populations or larger companies (as in the north of New Zealand) NZPI membership is a means of enhancing credibility and employability.

Perhaps this reflects the traditional urban focus of the NZPI and traditional planning degrees and the higher level of urbanisation in the north. This in turn, implies a need for more niche, non-urban oriented degrees in other parts of New Zealand and flags a need for the NZPI to explore why it is seen as less relevant in less urban areas. This also supports the more environmental planning and policy focus of newer professional planning programmes such as Lincoln's and Waikato's. Speculatively, the lower level of importance attached to recruiting staff with accredited degrees in more provincial areas may also reflect stronger, well-established local or niche client networks that consequently may be less-competitive.

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Indigenous Disaster Planning – reflections on recent conferences

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The recent UN conference on Disaster Risk Reduction in Geneva continues worldwide efforts to adopt the Hyogo Framework for Action 2005-2015 (HFA) and its strategy of 'Building the Resilience of Nations and Communities to Disasters'. This year's conference included a side event called 'Engaging Indigenous People in Disaster Risk Reduction'. Organised by John Scott of the Centre for Public Service Communications, I was privileged to be invited onto the panel to discuss how Indigenous communities might contribute to local, national, and global disaster risk reduction practices. We stressed the *necessity* for Indigenous Peoples to have a voice in order to reduce disaster risk and vulnerability: imposing centralised solutions to local problems (many of which have successful solutions originating from Traditional Ecological Knowledge) threaten a community's capacity to initiate risk reduction and save lives. Risks may include some that are unique to Indigenous communities – exacerbated by our histories of colonisation and ongoing marginalisation – but also include those we have in common with other communities worldwide.

I spoke on our research about the Māori response to the earthquakes of 2010-11, emphasising our traditional cultural institutions such as marae and their role in civil defence for all community members, our comfort in clustering as whānau and the continued relevance of cultural practices of manaakitanga (the obligations of hospitality) and whānaungatanga (acknowledging bonds of kinship). I also drew attention to our mobility which saw many Maori leave Christchurch to shelter with whānau around the country as well as some emigrating to Australia.

Recommendations for 'HFA2' – the culmination of the UN programme in 2015 – from our workshop included:

- Recognition and better use of Indigenous perspectives and knowledge by incorporating these in HFA2.
- Support for the creation of regional Indigenous networks to give voice to Indigenous advocates for disaster risk reduction.
- Advocacy, through respective National Platforms, for 'a seat at the table' and for the inclusion of Indigenous knowledge in national disaster risk reduction planning.
- Provision of opportunities for Indigenous participation in regional and international forums.

I was also lucky enough to chair three sessions on Indigenous experiences of disasters at the International Geographic Union conference in Kyoto. The experiences of Indigenous Taiwanese geographers were of particular interest. Tung Hsiung Kuo, a Paiwan tribal member studying at National Kaohsiung Normal University, Kaohsiung, presented research on the cultural traditions of his people and how the knowledge around surviving in a seismically active region also subject to cyclones are passed down the generations. Government influence has seen villages relocated from historically safe locations to spaces now vulnerable to landslides such as those caused by Typhoon Morakot in August 2009. Australian geography was also well represented and given their proximity to our own shores (okay, that's 1,000 miles of salty water but it's all relative!), perhaps we should know more about the geography of that incredibly diverse land and its ancient occupation than the 'GC'.

Reflecting on these and other conferences (such as the Australia and New Zealand Disaster and Emergency Management event in Brisbane which has had minimal Indigenous presence, as in just one presentation on Indigenous experiences of disaster at the last two conferences), I am struck by the need for collective Indigenous tactics and strategies dealing with an overlapping of the four R's of disaster management – reduction, readiness, response and recovery. While still recovering from Cyclone Bola on the East Coast, Ngāti Porou communities will be responding to drought and engaging in reduction and readiness programmes for sea-level rise, all within a context of often extreme economic pressures. The Ōtautahi/Christchurch earthquakes have prompted a huge outpouring of research, much of it related to the geophysical sciences and this is to be applauded as we need to know more about this whenua or land we relate to in more ways than one…

A Masters thesis by Hauauru Rae, University of Otago, provides a powerful comparison of post-disaster planning landscapes for Indigenous Peoples in Taiwan and Ōtautahi/Christchurch. While a more participatory approach has evolved through the Taiwanese recovery to a major earthquake in 1999, Ngāi Tahu is acknowledged as a formal stakeholder in the rebuild through the Canterbury Earthquake Recovery Act (2011). Ngāi Tahu have, like the rest of the city, acquired considerable experience around the resourcing and skills needed in disaster response. But as Hauauru Rae points out, a formal role for Ngā Maata Waka, those Māori who do *not* trace their lineage through Ngāi Tahu (and who comprise a majority of Māori in the city), is not acknowledged in legislation and does not feature in planning thus far, other than ad hoc community and committee representation open to all.

It is always fair and perhaps fundamental to describe disaster risk reduction as a work-in-progress. I would argue we have the model for a more *insightful* – through its inclusivity – approach to each of the four 'R's by reducing our vulnerability through a more accurate assessment of the risks to Maori and Indigenous communities. This would also enable greater readiness by acknowledging the knowledges these communities hold; better responses by networking with, for example, Kaupapa Maori delivery services, and faster and stronger recoveries through partnering with all Maori.

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Conference Report: International Conference on Tourism ICOT) 2013, Limasol, Cyprus

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The International Conference on Tourism is an academic conference organised annually by the International Association for Tourism Policy. In 2013 the third conference was held from 5-8 June in Limassol, Cyprus at the Cyprus University of Technology (CUT). The focus was on "trends, impacts and policies on sustainable tourism development" and aimed for a stimulating exchange of ideas on how to achieve sustainable tourism. Papers presented ranged across spiritualism, economics, environmental and health impacts with the underlying theme of social, cultural and environmental sustainability. Abstracts were genuinely peer reviewed with most papers being at a reasonably high standard and these peer-reviewed proceedings are to be published. There were close to 150 participants from all ends of the Earth which made for interesting communication, even English to English!

Key note plenary sessions were held at the start of morning and afternoon sessions and the final session, with other papers being 15 minute presentations at concurrent sessions over the middle two days of the conference. The opening day included a walking field trip of old Limassol and beach front and the final day was an all day field trip that took us into the forested mountains of Cyprus. Indeed, a feature of the conference was the large number of field trips and especially the emphasis on religious tourism, with each field trip featuring at least one stop at a religious site. I now feel more familiar with the Greek orthodox religion than any other! The mountains, varied forests, beaches, sea, heritage and 30 degree temperatures meant I became a keen promoter of Cyprus as a tourist destination. The strangeness of a divided island ('occupied by illegal invaders' we were frequently reminded or corrected) at the cross-roads of Europe and the Middle East, with 800,000 Russian tourists and over a million UK tourists each year only adds to the allure of the place for someone interested in tourism.

Dallen J. Timothy's keynote speech on microstates, islands and sustainable tourism provided a stimulating opening that nicely set the scene for my later paper on disaster risk reduction and tourism in Tonga (Rennie et al. 2013). Other papers that will stay with me included a theoretical analysis of the concept of spiritual tourism, a spirited debate over whether tourism to the Pope-oriented World Youth Week in Sydney constituted a pilgrimage or some other form of tourism, and the health impacts on the porters of tourism treks to the summit of Kilimanjaro.

It did seem somewhat ironic to be presenting a paper on surf break protection (Rennie, 2013) in a popular island tourism destination where there are beaches but essentially no surf, but I appreciated the Conference organisers waiving the additional conference registration (they were charging for a second paper even by the one speaker!) in recognition of the costs of travelling from New Zealand.

Attendance at the conference was down on expectations and this was attributed in part to

the financial crisis and associated bad publicity that Cyprus experienced in early 2013. However, there was a wide range of friendly participants, with a number of high quality post graduate student papers. Their involvement as main session presenters is encouraged by the Association and was good to see. CUT is only seven years old and is still establishing its office and teaching facilities and associated technology, but the conference organisers were enthusiastic, affable and things generally ran smoothly with essentially minor technical hiccups. The 2104 ICOT conference is in Dalien, China, the first time it has left Europe, and I suspect that the ICOT reputation will continue to grow.

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Conference Report: Global Platform on Disaster Risk Reduction 2013, Geneva, 19-23 May

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The Indian Ocean tsunami resulted in the United Nations' reaching agreement in 2005 on the Hyogo Framework for Action (HFA) to achieve "the substantial reduction of disaster losses, in lives as well as the social, economic and environmental assets of communities and countries" by 2015. Every two years, 133 nations report on progress towards disaster risk reduction (DRR) to the HFA's Secretariat, the United Nations' Strategy Implementing Disaster Reduction (UNISDR). UNISDR also produces a Global Assessment Report (GAR) which is launched at the biennial Global Platform on Disaster Risk Reduction (GPDRR), at which the nations committed to the HFA also officially meet, report, share experiences and make decisions on the programme for the coming years.

The decisions and information shared at such conferences affect the future direction of public investment decisions, and therefore of associated businesses. The conference therefore has a large number of delegates who are officially representing their country (officials) and usually Minister's of the countries concerned make an appearance at some stage, and representatives of related United Nations organs (e.g., UNDP) are also present. As with most United Nations meetings of this type, there is considerable interest by non-government organisations (NGOs) of all types (business to environmental).

It is not a typical academic conference, instead comprising an official core or formal session at which only nations have a right to speak, but 'significant others' (e.g., the World Meteorological Society or the World health Organisation) may be invited to make comments. Such sessions are translated simultaneously into the languages of the United Nations and comprise plenary sessions. At other times formal programme, concurrent 'featured events' occur and questions are often taken from the floor in an attempt to stimulate discussion, although usually these questions comprise lengthy statements from representatives of groups or local governments that have not had a seat on that particular podium, but wish to push their particular interests to the fore. In addition there are also a large number of concurrent 'side events', that are not part of the formal programme, and exhibitions. The side events tend to be where many of the more significant, often academic, discussions occur in a more relaxed manner but positioning also frequently occurs. There are ongoing exhibitions featuring demonstrations of materials and technologies proudly and often energetically promoted to passers-by and some of these are genuinely breath-taking – the Tangible Earth project is especially so. A stage provided opportunities for those not on any particular event to give brief informal pitches about their work and these were also often well attended. Then there are the cocktail parties hosted by various organisations, usually governments, pre-'formal session' meetings of relevant technical and scientific committees and the behind-the-scenes meetings where key decisions are taken of various levels of importance. It is effectively a market opportunity and a gathering at which contacts can be made, networks established and strengthened that typically occurs at conferences.

The 2013 GPDRR was the last before the World Platform in Japan in 2015 at which nations will have to make decisions on whether to recommit to the HFA for a further 10 years or to take a different path. The 2013 conference therefore had a greater significance than usual as various interests sought to focus attention on their issues and achievements. Not surprisingly it was the most well-attended of the Platforms to date with 4060 delegates registered before the conference started, the majority of them from Europe and the Asia-Pacific regions. This was larger than the World Health Organisation's concurrent conference and consequently accommodation in Geneva was at a premium.

Lincoln University had been commissioned by UNISDR to prepare one of several Background Reports for the Global Assessment Report and the team, with Roche Mahon as Principal Investigator and with Prof Susanne Becken and myself as Investigators had produced a report of over 100 pages (Mahon et al. 2013), and as a result were given a three minute slot to present the key findings in what turned out to be a packed formal featured event at the launch of the Global Assessment Report. We had also been part of the review process for the GAR itself. As a result of these activities the Lincoln University logo was prominently displayed in the featured event and our involvement was fully acknowledged in the GAR itself. Roche did not attend the Platform as she needed to make up time on her PhD which had suffered somewhat from her efforts in researching the Background Report (while we were in Geneva she was actually winning the Lincoln University Thre3sis competition and a trip to Australia!). Susanne gave a very effective presentation and was the first of the expert presenters to stick to her three minutes, a feat that was noted positively by UNISDR.

Lincoln University was also represented by Dr Simon Lambert who was an invited presenter at a side event on indigenous peoples' issues and DRR. The Lincoln presence at the Platform was consequently relatively high, as was New Zealand's generally with a large official party that included the Minister of Civil defence (Nicky Kaye), the CEO of CERA (Roger Sutton), John Hamilton of the Ministry of Civil Defence who headed the immediate Canterbury earthquake response before the creation of CERA, and a large number of other prominent New Zealand-based disaster specialists and others who were working for other organisations (e.g. the International Red Cross). The Minister and Roger were panellists in various sessions due to the high level of interest in the Canterbury earthquakes and the recovery process.

In the build-up to the Conference, GNS/Massey University Professor David Johnston had ensured that those New Zealanders attending the conference were linked with the Official delegation (of which he was part). This led to invitations to attend a welcoming function at the New Zealand Embassy at which the Minister briefed us on New Zealand's official objectives and interests at the Platform. This created a sense of awareness and cooperation between the New Zealanders present that was retained throughout the Platform and has continued subsequently.

I have been a member of New Zealand's official delegations to United Nations Conferences of Parties to the Convention on Biological Diversity in the past, but this was my first experience of a UN conference as a non-official, and as someone not presenting a paper I had sufficient non-importance and anonymity to have considerable freedom. As a non-presenter my goal was to strengthen existing networks that had developed during our research and build new connections. I also aimed to ensure that Lincoln's presence was noted positively and that our research findings were shared widely, as well as learning as much as possible from the various sessions and supporting other New Zealanders where possible. Despite the size of the conference it was relatively easy to meet all the people I wanted to and I found the featured event on "Building resilience in urban planning and investments" of most interest.

The overall impression that left, was that politicians tend to address disaster planning after the disaster has already occurred, and do not give priority to funding the preparation period when a disaster is only a statistical probability. We have not found a means to combat this yet. A second,

heartening impression was the amount of effort being put in by some in the private sector to reduce the risk of disaster for sound business, but also social reasons. The one day post conference fieldtrip to look at the ways in which Switzerland was attempting to avoid disasters on its main roads through the mountains was also a memorable learning experience.

In summary, the GPDRR was an impressive event and it was notable that the GAR played a central part in shaping many of the discussions. As a direct consequence of our involvement, Lincoln University was subsequently included as one of only two places where UNISDR's Dr Andrew Maskrey, lead author of the GAR, gave seminars when he visited New Zealand in August. The focus is now on developing Lincoln's input to the future work of UNISDR in the build-up to the 2015 World Platform.

REFERENCES

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CAUTHE Conference – Lincoln University 2013

David SIMMONS[1], Emma STEWART[2]

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The *Council for Australasian University Tourism and Hospitality Education* (*CAUTHE*) is an incorporated association, established in Sydney in 1992. In February 2013 Lincoln University was privileged to host the 23rd CAUTHE conference, the first CAUTHE conference to be hosted outside of Australia. The theme of the Lincoln conference was tourism and hospitality and global change. A total of 194 delegates attended the conference from 17 countries. There were 82 delegates from Australia, 76 from New Zealand, 14 from the UK, three each from Thailand, South Africa and Hong Kong, two each from Norway, Sweden and Switzerland and one each from the USA, Germany, France, Slovenia, Japan, Malta and Malaysia.

The significant and disruptive earthquakes centred on Christchurch that occurred post formal bidding and throughout the 18 months leading up to the conference meant the event was organised in three venues (the first significantly destroyed, and the second subsequently deemed unsafe). Consequently, the quakes forced a refocus on a 'campus based' event, which created a significant benefit. This was confirmed by the post-evaluation exercise. The earthquakes themselves, the role of tourism and tourists in risk and resilience and the engagement of the tourism sector in the city's recovery became a major conference theme. These themes were augmented by an outstanding keynote speech from Tim Hunter the CEO of the Regional Travel Organisation to open the conference, a series of research papers presented as part of the scientific programme and a special interest group on risk and resilience and a conference tour of the CBD 'red zone'. The conference included two additional keynote addresses from Regina Scheyvens and John Urry, via video link.

In total, 72 Full Papers and 105 Working Papers were submitted for review, with 145 of these papers subsequently presented at CAUTHE 2013 (43 Full Papers and 102 Working Papers). The scientific committee was ably supported by a team of theme leaders and reviewers. The conference saw the trialling of a mid-career workshop initiated by CAUTHE fellows. This was well received and has been advocated as a bi-annual event. A successful PhD/Early Career workshop, themed around research methods was also well structured and well received. The Australasian team won the Great Debate; and the poster-based 'Ideas Factory' tried new ways to achieve greater interaction between presenters and the audience. Industry engagement was captured through an afternoon series of industry focussed workshops on issues related to water, the Chinese market and the digital age.

The conference enjoyed wide acclaim from participants and generated strong local and national media coverage. Both formal and informal commentary indicates this was at the top end of conference satisfaction within CAUTHE's 20 year history. Key elements for success were a campus based event - creating something of a 'village atmosphere', reasonable pricing, a well-balanced programme of strong keynotes, streamed papers, infusion of local culture, mix of social events and fieldtrips. This was all underpinned by a tight and well focussed

local organising committee and effective, efficient Professional Conference Organiser (Composition Ltd).

The tenacity of the CAUTHE executive and conference organisers in bringing the conference to Christchurch to both support recovery and understand better these aspects of tourism is acknowledged.

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Where are they now?

Rachel WILSON

Lincoln University graduate in Bachelor of Environmental Management and Planning, 2013

DAVID BIRCH MEP, GRAD DIP RES STUDS
ENVIRONMENTAL ANALYST, AL RESOURCES

David graduated in Resource Studies in 2010, and obtained a Masters degree in Environmental Policy in 2012. Since November 2012 David has been working as an Environmental Analyst with AL Resources, a small projects management consultancy in Christchurch that he did a research scholarship for in the summer of 2011/2012. David also sits on the Waimakariri Zone Committee of the Canterbury Water Management Strategy (CWMS). The most useful elements from David's degrees that apply to his chosen career are environmental research into best management practices both in NZ and overseas, a good foundation in NZ environmental law, and familiarity with national, regional and district government policy, standards, plans and regulations.

The key focus of David's work is on reducing the environmental impacts of irrigated land use on Canterbury's water quantity and quality, and he is working closely with the regional council, CWMS Zone Committees, farmers and key farming industry players, to implement mitigation measures such as Farm Environmental Management Plans (FEMPs). FEMPs address irrigation efficiency, reducing nutrient leaching to water catchments, good soil management, preventing stock access to waterways, containment of stock effluent, riparian planting and protection/enhancement of biodiversity on private land. FEMPs will become mandatory tools in the near future for most farmers under new regional policies and plans, in order to maintain nutrient leaching below specified catchment and land use limits, as set in the rules and regulations.

For the three years that David was at Lincoln University he was – and still is - a volunteer RM (resource management) Case Worker for Community Law Canterbury (CLC), a free legal service. This has helped his understanding of real RM issues, and complements his legal and planning training at Lincoln. This opportunity at CLC is available for most students in these lines of study.

David complements his environmental training and career with a passion for native conservation and restoration of indigenous biodiversity. He sits on the Silverstream Reserve advisory board, a partnership between a local community and the Waimakariri District Council to develop and restore a 52 ha piece of public scrubland astride a pristine spring-fed stream. David has managed the riparian planting of some 8,500 native trees, shrubs and grasses on 2 ha that were previously covered by rampant old growth weeds.

AGATHE GRENIER
M.APP.SCI (EM)
ENVIRONMENTAL ENGINEER, EDF

Agathe is a former student from France. She is now 28 years old and used to be an electronics engineer in France before she applied to study at Lincoln University. Agathe took the M.Applied Sciences in Environmental Management in 2010-2011 with a special focus on renewable energy infrastructures. She is now back in France after two wonderful years in NZ, and working as an environmental engineer at Electricité de France (EDF) as of January 2013. She is involved in very

innovative renewable projects such as a subsea tidal turbines project in the English Channel and floating wind turbines projects in the Mediterranean sea. Her first mission was to deal with the required documents to get the resource consents for the project developer and she was also part of the project management team looking at the environmental impacts of technical choices and dealing with public consultation. Her training at Lincoln was very appropriate to her new job especially the courses dealing with environmental law and resource planning, environmental impact assessment and environmental management systems. Agathe's experience of New Zealand was a significant plus during her job research especially due to our reputation in preserving our environment.

When Agathe first left France she planned to get work on renewable energy projects as an environmental engineer, and today she is more than satisfied as she is working on very advanced technologies she did not even dream of.

SHELLEY THOMPSON
M.APP.SCI (EM)
RESOURCE MANAGEMENT PLANNER

Shelley studied a Master of Applied Science in Environmental Management at Lincoln University during 2007, after completing undergraduate studies at the University of Otago. After graduating from Lincoln University, Shelley worked as a Graduate Planner at a global environmental and engineering consultancy based in the Hawkes Bay for a few years.

Following this Shelley travelled overseas for 2.5 years on her O.E. Based in the UK, she was unable to obtain planning work due to the economic climate and lack of UK experience and instead worked as a waitress and travelled frequently.

Shelley is currently working as a Resource Management Planner for an environmental and engineering consultancy based in Christchurch which involves the preparation of resource consents for industrial and commercial developments and rebuild activities. Shelley's post-graduate studies at Lincoln University assisted her in her job as a planner particularly due to the good understanding it gave of the Resource Management Act 1991 and also the wide consideration of stakeholders and potential effects of activities.

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Staff Profiles

Courtney GUISE

Lincoln University Bachelor of Environmental Management and Planning Student

Ian Spellerberg

Professor Ian Spellerberg (Photographer: David Hollander)

Ian Spellerberg was Professor of Nature Conservation and is now Emeritus Professor. In 1994 he was appointed as the Director of the Centre for Resource Management. He then went on to fill other various senior management roles within the university. In the early 2000's he focused on teaching and research. He has published many books, papers (including award winning papers), and popular articles. In 2008 he was awarded the Science Communicator award from the New Zealand Association of Scientists. At the same time and with support from the late Lady Isaac, he established the Isaac Centre for Nature Conservation. That Centre was responsible for many new initiatives including the Annual State of the Nation's Environment address. He has worked with many post graduates, supervised many PhDs and taught ERST 631 Environmental Sciences in Environmental Policies and ERST 636 Perspectives of Sustainability. Ian was responsible for establishing two international and jointly taught masters programmes; the Master of International Nature Conservation (with Goettingen University in Germany) and the Master of Natural Resource Management and Ecological Engineering (with BOKU University in Vienna). He was a key figure in establishing the New Zealand Chapter of the Environment Institute of Australia and New Zealand. He is now an Honorary Fellow of that Institute. His interests have always been in and continue to be in nature conservation and environmental sustainability. Although now semi-retired he continues to play an active role at University.

From here-on, Ian plans to continue guest lecturing, supervising, writing and editing. He will also be taking part in establishing research projects on the value of native trees in the Canterbury Plains as part of his patronage of the Ta Ara Kakariki Greenway Canterbury Trust. Ian hopes to see Lincoln University at the head of Sustainability research and studies in New Zealand. He believes the University has the opportunity, the skills, the knowledge and the resources to become the 'green' university of New Zealand. He also hopes the students at Lincoln University will benefit from their time here and take every opportunity that comes their way to improve their research and other educational skills. Ian is adamant that all graduates who become environmental practitioners must also join an environmental institute and aspire to certification. Ian has

thoroughly enjoyed his time at Lincoln University due to its close links to the "real world", opportunities for interdisciplinary teaching and research, the international status of the University, and the University's friendly and co-operative character.

Ton Bührs

Associate Professor Ton Bührs (Photographer: David Hollander)

Ton in currently an Associate Professor in Environmental Policy at Lincoln University. He mostly lectures postgraduate papers in Environmental Policy and Planning, International Environmental Policy and currently also a Group Case study. Ton had completed his Masters in Political and Social Sciences at the University of Amsterdam. In the Netherlands, he initially was a teacher of Social Studies and then went on to teach at The Social Academy; a Netherlands Polytechnic for social workers. Ton came over to New Zealand from the Netherlands in 1984 due to his want for change and he has never looked back. He did his PhD in Political Science at the University of Auckland while being a house-dad and a tutor. Ton's main research interests are Environmental Policy and Politics, including New Zealand, International and Comparative Environmental Policy and Politics. In particular he is interested in the institutional aspects of environmental policy and management. The project Ton is currently working on is an edited book on Resource Conflict in New Zealand, dealing with conflicts related to water, energy issues, mining, land use and fisheries. Ton has been at Lincoln University since 1991 and has seen many changes over the years. Originally a lecturer with the Centre for Resource Management, he is now a staff member of the Department of Environmental Management, of which he was the Head of Department until late last year. Ton is leaving Lincoln University at the end of 2013 and in 2014 he plans to retain his link with Lincoln University and continue his research and writing in areas he has not had the time to focus on as much as he would have liked to. He is also planning on balancing his intellectual efforts with some more social/community efforts and recreational activities.

Ton sees Lincoln University's future potential in the sector of 'Sustainable Futures' in a variety of areas and perhaps even worldwide. The marketing in this way, Ton thinks, would allow for expansion of the University which could attract more students and staff internationally. He sees this expansion as a link to Lincoln University's interdisciplinary and 'real world' orientation.

Ton's hopes for students in the future include helping to advance a sustainable future and that they have time to think and discuss what this means. He hopes these students will be able to critically think, question socio-cultural and political-economic structures and assumptions on which current practices are based, and look beyond technological issues and solutions.

Awards for Lincoln Graduates

Olivia KRIELEN

Lincoln University graduate Bachelor of Environmental Management and Planning, 2013.

Ruth Markham-Short

In 2013 the John Hayward Memorial Prize went to Ruth Markham-Short. This prestigious prize is awarded to the most outstanding Master of Environmental Policy student who has completed the degree, based mainly on academic performance in all the core/compulsory subjects of the degree. It was created after the death of John Hayward (in 1993), who was the founder, and for a long time director, of the Centre for Resource Management and of the Master of Science (Resource Management) degree, the precursor of the Master of Environmental Policy degree

Ruth Markham-Short

Jay Whitehead

Jay Whitehead has won the Brooker Prize for Lincoln University for 2013. Thomson Brookers is the major law publishing firm in New Zealand and has close connections with Lincoln University. It's online and hard copy versions of the Resource Management Act and other legislation enables students to keep up to date with relevant changes in planning law. It offers awards to planning/planning law students at universities throughout the country and the criteria for gaining the award varies from university to university. At Lincoln University the Brookers Prize in Resource Management is awarded each year to the student enrolled in the first year of the MEP who gains the highest marks in the five core subjects: ERST 630, ERST 631, ERST 632, ERST 633 & MAST 603.

*Both Ruth and Jay are now employed by Christchurch City Council in the regulatory and democracy services team.