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Working towards Integrated Environmental Management – A review of key regional governance initiatives in New Zealand after *the Local Government Act 2002*

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Abstract

Integrated environmental management, enabling crosscutting and coordinated government and agency responses to environmental management was one of the main justifications for the introduction of the Resource Management Act (RMA) 1991. This new national government emphasis on a more integrated and decentralized approach to environmental management presented significant practical challenges at the local government level. It required re-training, capacity building and culture change at local levels and the adoption of new planning, consultative and cooperative governance mechanisms. In the view of some critics barriers to overcoming such challenges meant that the reform opportunity would be thwarted, or at least proscribed (See Frieder 1997). The introduction of the Local Government Act 2002 (LGA) changed the legislative and institutional environment and has renewed the opportunities for more integrated environmental management. This paper explores how these changes are making a difference in how key environmental projects and developments are being approached in the region. The legislation was informed by guiding principles of bringing decision making closer to communities, enhancing democracy and participation, promoting collaborative processes and structures and an accountability regime that requires policy makers to balance environmental with social, economic and cultural values and considerations. This paper provides the opportunity to examine moves toward a more integrated approach for Environment Waikato to its approach to traditional areas of concern for water quality and air quality as well as in its approach to long term planning. Through initiative such as the nitrogen reductions strategy at Lake Taupo, Long Term Council Community Planning process and its Choosing Futures Waikato initiatives, there are increasing opportunities for interagency coordination and stakeholder involvement at the project level, better information collection and dissemination of environmental information as well as the promotion of a more holistic conception and approach to environmental management informed by sustainability principles.

Disclaimer: The views expressed in this paper are my own and do not reflect those of my employer and are not to be considered policy of the Waikato Regional Council.

Current and Emerging Challenges in Resource Management for Regional Councils in New Zealand

A recent community survey conducted by Environment Waikato highlighted a range of coexisting and inter-related concerns about the State of the environment and the economy in the Waikato region¹. *The Environmental Awareness, Attitudes and Action Survey* (April 2007) reported that increasing numbers of people were concerned about the deteriorating environment and that water pollution was a major environmental concern in the region. Respondents also recognized that achieving better water quality would come easily and ninety percent agreeing that water quality should be maintained even if it meant that business bore greater costs. Even so, a sizeable group of 56% of those surveyed did not want the historically significant dairy farming sector in the region to decline to achieve a better environmental outcomes². Essentially, residents regarded sustaining economic growth (and in the Waikato, this at the present time means a viable dairy industry) and achieving a healthy environment were both high priorities and that neither should be compromised to a great extent. It is a finding that resonates with one of the essential challenges in regional and local environmental management government of being able to reconcile competing and interrelated needs and aspirations of the community and environmental imperatives. It highlights the particular challenge that Regional Council's have of the need to limit the adverse environmental effects of human activities (economic, social and cultural), whilst also maintain viability of key industries and opportunities for wellbeing in the region. This may broadly approximate with the challenge of sustainable development but it presents in the core business of Council as the challenge of integrated environmental management. It's not longer possible due to legislative and political requirements (as well as practical and pragmatic considerations) for regional council's to define their core business as the environmental intervention and protection in isolation from a focus on human interaction and behaviour and attitudes and cultural values that bear on the environment. Learning to engage with community, their needs, aspirations and behaviour and relate these environmental imperatives of clean air, water and soil and biodiversity and biosecurity are essential components of the business for Regional Councils. In this paper, the focus is tracing some of the organization's key learning as Environment Waikato's development of an integrated response to them.

Limits to Integrated Environmental Management under the Resource Management Act

The Resource Management Act 1981 (RMA) when introduced, was hailed as innovative and comprehensive in that it seeks to provide a framework to identify and resolve complex environmental problems and bring together through one piece of legislation a range of areas of natural resource and environmental protection and management. It provides a step towards a more integrated approach in so far as it brings together a variety of agencies, removes complex and varied legislation, improves communication and decision making process and promotes a more holistic conception of the environment. It's policy intent at least to provide for integrated and sustainable management of resources and is supported by planning processes to facilitate a level of coordination and integration. Regional council's functions about identifying issues of regional significance and the development of regional policies and plans intended to promote integrated management of air, water and land. Have Regional Policy Statement and district plans and regional plans about controlling adverse affects of resource use and development. District plans actually guide those activities, specifying what is not allowed or prohibited activity. But reverse is true of regional plan as developers can only carry out activities specifically permitted for in the regional plan. However, the RMA ACT 1981 does not define what is meant by integrated environmental management, but does in its scope and approach encourage new questions to be asked and new ways of thinking adopted that relates to the concept of sustainable use and management of resources. According to Frieder, it's offering a new framework of approach based on evolving and developing experience rather than a specific set of questions and answers. Since its introduction, there has been a lot of questioning about the effectiveness

¹ *The Environmental Awareness, Attitudes and Action Survey* was last carried out in 2006 and finalized in April 2007.

² The Survey found that more than 50% of those surveyed were not aware that effluent run-off from dairying was the greatest source of water pollution in the Waikato River.

of the legislation in providing and scope in providing for an integrated approach, especially in its potential to deliver sustainable development and be responsive to community concerns and aspirations. These shortcomings may have been critical in motivating later reforms to Local Government Act 2002 that now requires local and regional governments to integrate and balancing the four well-beings of environment, economy, social and cultural in relation to natural resource management responsibilities.

The Resource Management Act 1981 (RMA) as main environmental statute in New Zealand requires that natural and physical resources be managed in a sustainable way and it assigns primary responsibilities to regional councils in achieving these aims. From inception, the RMA contained a policy judgment that *sustainable management* was a more appropriate or at least more amenable concept to deal with through the Act than the less readily defined or politically contentious notion of *sustainable development*³. The purpose of the Act was set in the choice of wording as to promote

“Sustainable management of natural resources in a way, or rate, which enables people and communities to provide for their social, economic, and cultural wellbeing, while: sustaining of natural/physical resources, safeguarding the life-supporting capacity of air, water and soil, and avoiding, remedying adverse effects”.

Much of the research and critical commentary on the subsequent operation of the RMA has suggested that these proposed connections between the environmental, economic and social have not been well recognized in practice (Parliamentary Commission for the Environment (2002, p. 25). The Act has through subsequent interpretation been has been interpreted in a more conservative way, with less emphasis on achieving integrated environmental approach in practice in favour of a strong physical environmental (protection and conservation) focus of the Act. In other words, it's a departure from some of the more holistic and integrated visions contained in the Brundtland Commission⁴.

It was noted by the Parliamentary Commissioner for the Environment in his 1997-2001 *Future Directions Statement* that the management approach that had developed with the implementation of the RMA, had failed to make the necessary linkages between social, economic and environmental policy. The RMA alone has not provided the answers in how to address the wider social and community aspirations and issues and thus left a vacuum, signaling the need for new or amended legislation. According to the Parliamentary Commissioner for the Environment, sustainability is ultimately about the interplay between people and ecologies and that our system of government needs to respond to and be reinvented around this dynamic interrelationship:

“Our fundamental task in the coming decades is to redesign our socio-political-economic systems in ways that reintegrate the dependencies between people and our underpinning ecological systems (Parliamentary Committee for the Environment 2002, Report Summary).

The Commissioner's insight from the 1990s anticipates the policy conundrum also represented in the findings of the current community survey mentioned above. Regional Council's can no longer function as environmental protection agencies and environmental watchdogs alone but are obliged increasingly to comprehend, interact and respond to community attitudes and behaviour in more complex and dynamic ways. The core work of government can not be done in isolation but through its interactions and cooperative work

³ Key researchers on the RMA in New Zealand acknowledge that the RMA was innovative in its time but was introduced when the concept of sustainable development was still new and less easily adapted to guide legislation. The paradigm shift was just getting under way and this has contributed to a legacy of uncertainty and different understating of how what sustainability means in the legislation and to develop effective plans and strategies for implementation ((Parliamentary Commissioner for the Environment in Ericksen, et al 1993, Foreword)

⁴ This holistic perspective encourages a focuses on looking at how all the parts of the system relate to each other, the need to consider the well-being of social, ecological and economic systems (See Hardi and Zdan 1997, p. 2)

with community, industry and business and the shared commitment, understanding that sustainability is the core business and responsibility of every person and organization. Another dimension to the conundrum can be attributable to what Skelton and Memon (2002, p. 2) identify as the uncertainty about how to interpret the meaning given in Section 5 of the Act to the concept of “sustainable management”. This reflects apparent lack of clarity about the underlying objectives of the legislation or more particularly, the resultant diversity of views and group and public perceptions about the meaning of sustainability (Skelton and Memon 2002, p. 3).

A more conservative interpretation has been that consideration of social and economic wellbeing should be treated separately. (This has since been espoused in the National Party’s Blue Green Vision for New Zealand (Smith 2006). It has also been the view of Treasury officials who have taken the stance that social wellbeing should be provided for through separate legislation and not compromise the bio-physical imperative required by environmental management legislation. The Treasury view, according to Skelton and Memon (2006, p.3) has been to oppose the RMA being transformed into an ‘environmental planning statute that provided a forum for resolving diverse values disputes in a community as part of the wider local government democratic process (the integrative or the “triple bottom line” model).’ The counter position offered by the Parliamentary Commissioner for the Environment who argued that specific consideration and action is required by government to promote sustainable development. It is not enough, the Commissioner argued, just to have ‘good strategy and intentions to promote sustainable development’ but we need to focus on how “to convert strategies into action to make genuine progress towards sustainability for the benefit of society, the environment and wealth creation in New Zealand” (PCE 2002, p. 16).

Perhaps it is the interplay of both arguments that give impetus for sustainable development to be linked to other areas of legislative reform and a way beyond an apparent impasse set by the ambiguities surrounding the purpose of the RMA. The *Local Government Act Amendments, 2002*, stand out in this regard as they embrace strategies for promoting sustainable development (embracing social, cultural and economic standards), albeit leaving the RMA with a narrower focus of environmental bottom lines. A series of amendments to the RMA in 2003, 2004 and 2005 have been initiated to improve its functionality and promote increased coordination. These have led to the adoption of a more streamline and cooperative approaches across central, regional and local governments, and so a more coordinated approach to environmental management. Regional Council’s now develop of Regional Policy Statements⁵ in close cooperation with local (territorial) authorities and National Policy statements are a device that are attended to have force under the RMA to guide regional and local authorities towards the achievement of directed national policy standards and targets. Dickie (2007, p.1) has noted that, “integrated resource management will now depend upon the nurturing of excellent relationships within and between local authorities in the regions and this is guided more by the requirements of the *Local Government Act 2002*, which stipulates standards for coordination and integration through devices such as the development of Triennial Plans, as well as the need to develop long term plans informed by wider standards of community, social and cultural well-being. Whether by design or by compromise, it is the amendments to the Local Government Act 2002 and its interaction with the RMA, to which we can look to present new opportunities for achieving a more integrated approach to sustainable development in New Zealand.

The Paradigm Shift in approaching Environmental issues in New Zealand

One of the intentions in this paper is to explore what it means in practice to make the policy shift from sustainable management of resources to the adoption of sustainable development as strategic focus for Regional Councils, albeit within the parameters and shifting opportunities set out by the RMA and LGA and their amendments respectively. Racing this

⁵ Regional Policy Statements are a key requirement of the RMA. Each region is required under Section 59 of the RMA to develop one in order to give an overview of the main resource management issues for the region and the policies and methods chosen to give effect to integrated management of the natural and physical resources within the region.

recent history of response is part of a broader narrative of shift and adaptation in approaches to environmental management internationally. In some European research emanating from the Netherlands, (Schenkel 2000, p. 160) this shift is not just about the focus on broader social, ecological and economic needs of current and future generations but as a process that requires reform and re-orientation of policy making styles and actor arrangements (Paehlke, cited in Schenkel, 200, p. 160). Part of this is the integration of economic, environmental and social issues but it involves a particular focus on government in organizing a process of social change involving ecological modernization. (Beck et al 1994, cited in Schenkel 2000, pp. 162-163). Sustainability as an organizing concept and principle implies that we do not look at the environment in isolation but related policy concerns of living condition, social welfare and economic growth. It involves questions of interplay and trade-offs, is not time limited (is linked to considerations about the future and decisions about what is ethically and morally acceptable". With this more dynamic approach, there is also the need for change in the role that governments play. It's about managing the process for working out the trade-offs, promoting the vision and enhancing understanding based on science, technology, values and reason. It may also involve creative use of economic and market instruments but essentially involves the transition to what Hajer 1995, 31 called "the state's changing role from bureaucratic to communicative steering" (sited in Schenkel 2000, p. 164).

In New Zealand as elsewhere, this shift in environmental approaches away from technical prescriptions informed by scientific knowledge and regulatory based responses and top-down government response to one that recognizes greater uncertainty and complexity (Glasbergen and Driessen 2002, pp.3-4). Environmental problems are now seen in more complex terms and a variety of lenses including economic and social costs and benefits and the more liberal understanding of sustainable development. In the New Zealand case, an early direction for change was indicated by the Strategic Consultative Group on Sustainable Land Management Research (1995. p1). It was established to help set up a strategic framework for sustainable land management in New Zealand which it recognized to include "consideration of all the various environmental, economic and social linkages between people and the land". This group provided a cogent and dynamic understanding of a more integrated environmental management approach that linked central, regional and local government and bridges a focus on rural and urban areas, land and waterways. A final element of the approach is the recognition that sustainable land management will require changes in attitudes and values and a focus on behaviour change (The Consultative Group, 1995, p. 1)⁶. This perspective relates quite directly to policy conundrum identified above in relation to Section 5 of the Resource Management Act and the need to address "biological and ecological and physical issues" but linked to "people and communities in terms of their direct relationship with biophysical and ecological issues (RMS 1982, Section 5). It thus anticipates the linkages, more fully developed in the Local Government Act (2002), of the need to appreciate and be responsive and understanding of community behaviour, expectations and aspirations and for these to inform planning processes, management regimes and programme development. It also about the adoption of integrated, multi-disciplinary and systems-based approach which is both "flexible and adaptive and considers environmental, economic and social objectives (Strategic Consultative Group 1995, p. 7).

This developing, integrated approach entails a more participatory and collaborative style of operation where priorities and action are worked out amongst resource users and where private users and interests must also take responsibility (Glasbergen and Driessen 2002, p. 4). We have seen clear shifts in this direction in New Zealand with Triennial agreements linking the actions of various government agencies, the development of cooperative frameworks such as choosing futures Waikato bringing together government agencies and NGOs and community groups together and in government industry agreements such as the

⁶ The Consultative Group gave particular credence to the need to connect and relate scientific and technical knowledge to policy makers and the community reflecting the need for both better communication and integration of knowledge and understanding.

Clean Streams Accord between Environment Waikato and Fonterra as well as in Integrated Catchments Management projects at sub-regional levels.

Modern environmental politics defines the issue of guided change as being the problem of establishing a course of action in collaboration of public and private actors. . . Governance therefore needs to take the form of organization of various discursive learning processes (involving government, market interests and civil society) (Glasbergen and Driessen 2002, p. 4)

As with the international trend, we are moving in the direction of less strict reliance on scientific knowledge and regulatory response to accounting for private, industry group and community perspectives and through the shared perspective the opportunity to find consensus and agreed approaches to dealing with environmental problems. It involves closer emphasis on consultation, participation and partnership involving land and resource users, policy makers, scientists and the community reflecting “shared responsibilities, shared commitment, shared benefits and shared control (Strategic Consultative Group 1995, p.15).

Emerging Roles for Regional Councils supported by the LGA Amendments 2002

At the global level, increasing focus and attention on the role of local government in environmental management and sustainable development was given particular focus after the 1990s. One source of impetus was the 30th World Congress of the International Union of Local Authorities preparation of the *Oslo Declaration on Environment, Health and Lifestyle* and the subsequent formulation of *Agenda 21* (Hardi and Zdan 1997, p. 144). The document calls for action at the local level in recognizing that sustainable development is not just a matter for central governments but a matter for all, including, local government who had a significant role to play. Many problems have their origin in local activities so that solutions should involve local government and they should be encouraged to address environmental problems through their planning and activities. It corresponds to an increase willingness to prioritize environmental issues, undertake more systematic approaches, including monitoring and collating information about the state of the local environment.

In the New Zealand case we see sustainability principles specifically taken up in *the Local Government Act 2002*. This followed the initiative of Local Government New Zealand establishing a Sustainable Development Project Team in 2001 to specifically build capacity and support local government’s role in promoting sustainable development. Initiatives included developing a toolkit for sustainable development, establishing support networks, developing an implementation programme for the new Local Government Act 2002 (PCE 2002, p.111). The Local Government Act 2002 defines this purpose for local government as firstly to enable democratic local decision making and secondly to promote the social, economic, environmental and cultural well-being of communities in the present and for the future. Reconciling Council’s role and responsibilities in promoting sustainable development is one of the key policy and programme responsibilities that Environment Waikato and regional council’s in New Zealand are currently grappling with. The LGA (s14(1) (h) assigns a more active role for local government in realizing sustainable development rather than the more passive approach in the RMA which is to “manage resources in a way, or at a rate which enables peoples and communities to provide for their social, economic and cultural well-being”. The new requirements under the RMA for the development of more integrated and collaborative Regional Policy Statements is also supported by the provisions of Section 91 of the LGA through its community outcomes process and making the aspirations more tangible, measurable and actionable through district and regional plans.

Integrated Planning – The Long Term Council Community Plan

It is the Long Term Community Plan process which enables regional councils to appreciate and begin to respond to the community’s understanding of long term social, economic and cultural and environmental well-being. The LGA amendments as Oram describes them have expanded the roles and responsibilities of local government by opening up ‘a mechanism for

a co-operative approach to settling environmental goals in a broader social and economic agenda (Oram 2007, p. 14). However, it's far from apparent that councils are fully prepared and equipped to do so as they take on new roles and grapple with the range of challenges in developing new governance models and approaches. Some implementation challenges include how to work with other agencies and authorities in more coordinated and integrated ways as well as the need to recognize and respond to the complexity of tradeoffs, and relative priorities within the complex mix of identified community outcomes and aspirations. A key recommendation from the Local Agenda 21 forum was for local authorities to work with local communities to develop a plan of action. The Parliamentary Commissioner for the Environment also encouraged local governments to extend its role in working with their communities to help shape their own future. It's an attempt to empower communities. (PCE 2002, p. 115)⁷. This principle is reflected in the amended Local Government Act in New Zealand which identifies a central line of accountability for government to the community. It identifies a central purpose through the device of the Long Term Council Community Plan (LTCCP) under s.96 (6) to promote accountability to the community through a number of means. These include describing the desired community outcomes of the district or region, providing integrated decision-making and coordination of resources, providing a long term focus for decision and activities of the authority and an opportunity for participation by the public in decision-making processes.

The consultation undertaken through the planning process is not an end in itself but helps to foster public interest in the activities of council through promotion of new opportunities for community discussion, debate and input so that government decisions reflect community concerns and aspirations⁸. The integrated management component is apparent in the LGA requirement that Council to take account of the need to maintain and enhance the quality of the environment, the social, cultural and economic well being of people and communities and to reasonably for see the needs of future generations.

The principles guiding legislation included subsidiarity – that decisions should be made at the level of government closest to the people and that the legislation should enhance democratic participation beyond voting at elections. It also values giving broader opportunities for the community to express views and collaborate as well as a means of promoting accountability and transparency of government. The outcome is the development of a more broadly empowering legislative framework. The Act established a role for local government to promote community wellbeing in and on terms defined by the community and that requires creating opportunities for community choice. However debates continue as to how alive the process is? Is it a procedural requirement or an active process of engagement? Other reservations expressed about the legislation include the concern that it has onerous reporting requirements that can exhaust strategic thinkers and council planners in a cycle of report writing and stifle creativity and initiative. An additional concern is that the planning and consultation processes can establish a clear agenda of what needs to be done without necessarily ensuring clarity about means and processes and or managing expectations about what can actually be achieved and by when. This can be a particular challenge for regional council's who do not have legislative or programme competencies to be able to deliver across all of the well beings defines in the Local Government Act 2002.

Realizing a Vision for Sustainable Development - Choosing Futures

As the Strategic Consultative Group (1995, p.13) notes, there have been a plethora of strategic statement identifying environmental issues and sustainable development visions to which New Zealanders might aspire to. The challenge though relates to how these strategies can be supported by meaningful action. We are reminded pointedly: "strategies must be backed by processes and means to translate them into reality (Strategic

⁷ The PCE (2002, p.115) notes cites research which notes that notes a three fold increase in local government authority increase in Local Agenda 21 activities (1997-2002), Some 6,400 local authorities in 113 countries had become involved by 2002.

⁸ Section 3 of the LGA 2002 recognizes that Local Governments will "play a broad role on promoting social economic and environmental wellbeing of the communities taking a sustainable wellbeing approach".

Consultative Group 1995, p. 13). It is appropriate therefore, to give specific attention to the implementation and application aspects of the environmental management reforms. In relation to community outcomes process, there is now a greater commitment at Environment Waikato to ensure that community members are both informed and involved. Decision-making is transparent and Council and reflects the priorities and needs of the community. It is based on belief that the public have a desire to participate in environmental processes and to protect the environment⁹ and identification of the linkage between increasing levels of community awareness and the effective environmental action and management. The Community Outcomes statement report asserts that, on behalf of the Waikato community: 'we are educated and informed and have the resources we need to take responsibility for our environment'. Statutory requirements under the LGA 2002¹⁰ are for the LTCCP process to be supported by a triennial agreement framework which ensures the collaboration between local authorities within the region. This is supported by a commitment to robust relationships with Maori groups. It is also council's responsibility to coordinate key agencies in the region to ensure progress is being made towards achieving LTCCP Community Outcomes (especially in relation to areas not part of Environment Waikato's core responsibilities). The processes are also supported by comprehensive regional information and data management.

Organizations are increasingly establishing interagency arrangements to address complex issues and develop projects to address social, economic, cultural and environmental needs. The approach that seeks to integrate economic, environmental, social and cultural considerations in planning and decision making processes and is supported by the LGA which recognizes that local authorities will need to collaborate with a variety of agencies to find solutions to local issues. The purpose of *Choosing Futures Waikato* is to provide a way for agencies to work together to provide a basis for strategic planning which supports and monitors progress towards community outcomes. Initially, it offers the prospect for coming together and regular interaction to promote the development of trust, networks and shared understanding. Through this interaction, it is intended that new ways of working together and providing value will develop. The new policy context has meant that the focus of regional and local authorities extends beyond the focus of the RMA on managing natural resources and the environment more sustainable to more broadly embrace quality of life issues. A sustainable economy, issues of culture and identity, participation and equity all have importance and are factors brought directly into the mix of decision-making. LGA gives significant impetus to integrated approach: Under S3 of the Act local governments will "play a broad role in promoting social, economic, environmental and cultural wellbeing of their communities, taking a sustainable well-being approach". It involves recognizing the interactions between these variables and of the tradeoffs that must be recognized and worked out among these variables. In practice, this achieved through the Long Terms Community Council Plan process which requires that councils must:

1. identify, prioritize and integrate economic, social, cultural and environmental outcomes that the community wants to achieve
2. Describe council's actions to achieve those outcomes
3. take ten year (long term focus)
4. Provide integrated decision-making and coordination of council resources (Local Government Act 2002, S. 93)

Council's, including Environment Waikato, are thus seeking to be proactive in introducing new ways of working, planning, using and managing information. A large part of the initial focus is on information management. A big emphasis is on the development of integrated data sets to inform and guide integrated models and decisions making and support systems

⁹ This belief is not mere assumption but is borne out in the conduct of Environment Waikato's Environmental Awareness, Attitudes & Actions Survey 2006 which has highlighted increasing interest and stronger views in the community about the environment and in their willingness to take individual actions to address issues of environmental degradation.

¹⁰ The LGA Act 2002 provides a statutory requirement for communities to be involved and consulted. It contains elements that enable more democratic local government decisions making. Through elections, meetings submissions, formal consultations and public meetings attention is being given to ensure community is more involved in priority setting and decision making and in turn ensuring that people have access to the information and knowledge.

that and the ability to use the resulting knowledge and information to inform community consultation and engagement processes. Attention is now being given in Council to developing frameworks for integrated assessment to support longer term community planning¹¹. The particular focus of the project is in data management collection and use and development tools and models that can inform planning processes. The particular feature and benefit of the process is that it links agencies and organizations together in shared responsibility and coordinated discussion and planning.

Under the new legislative regime, councils require planning tools that enable them to work across agencies and with communities so that all are informed about issues and consequences and effects of actions and patterns of behaviour. This is critical to the realization of sustainable development. Effort is being directed to develop more refined tools to expose the links and tradeoffs in policy and program choices relating to the four well beings of economy, culture, environment and social/community¹². It is an approach which recognizes that resource management and achieving sustainable development is also a community matter and responsibility. It's about clarifying and developing the processes and framework for a more collaborative and community engaged approach. Local governments work with partners and agencies to contribute to more sustainable, integrated and efficient resource management. Regular monitoring and reporting process on community perceptions about the environment and other issues. These surveys confirm that the community has stronger and more developed positions about the environment. They confirm that then people value the region's natural environment and are concerned about threats and degradation. The surveys also confirm that people values the central location of the region and its waterways and landscapes. They also announce social and cultural values such as relationships, sense of connection place and of community and belonging and the opportunity to lead relaxed and less stressful lifestyles. There is a fundamental value orientation and recognition that a healthy and prosperous society depends on a healthy environment.

In moving towards adoption of a sustainable development strategy there is recognition that council is in a position to influence some but not all community outcomes. The areas Council has traditional strengths are in biodiversity, coastal preservation, maintenance of iconic landscapes, management of water demand, protection of energy sources. An area of increasing importance and dynamism is in the up-take of sub-regional debate and dialogue about the benefits of particular environmental versus development trade-offs, (e.g. Taupo and upper Karapiro water quality management projects, the Tokoroa Warm Home, Clean Air projects and various integrated catchment management initiatives). The key features of these attempts at integrated environmental management will be discussed below.

Lake Taupo – A Community Change Process to promote Sustainable Development

Lake Taupo is one of the most highly valued natural sites in New Zealand. It is the largest lake in New Zealand and features clear water that is valued by international tourists, local indigenous communities and other New Zealanders. However, water quality in the lake is declining and of increasing concern to Environment Waikato and the community. The water quality is under threat due to increased nitrogen levels due to intensification of land use, particularly dairying, which releases high loads of nitrogen to surface ground waters as compared to forestry¹³. The scientific evidence presented by Petch et al (2005, p.3) is that a reduction of nitrogen loads of at least 20% is required to maintain current lake water quality.

¹¹ A particular example of this innovative approach is the FRST research project Regional process for Community Outcomes, a jointly funded and undertaken between Environment Waikato, Hamilton City and eleven district councils as well as district health boards, central agencies, Iwi organization and central government agencies, industry and NGO groups. A more integrated approach follows from the representation of the cross agency representation and coordination moving beyond silo thinking and in the adoption of a longer term perspective (20- 50 year time frames).

¹² The development work is now focused on developing frameworks by which spatially explicit scenario analysis tools that integrate across economic, environmental, social and cultural issues can be used to inform the LTCCO process, (FRST Regional process for Community Outcomes, 2004)

¹³ Vant and Huser (2000) estimate the current nitrogen load to Lake Taupo at 1100 tonnes per year, which compares to predevelopment load of predevelopment load (400 tonnes from rural sources and 30 tonnes from sewerage and urban runoff).

The response has involved a careful process of community engagement and environmental management, not just about protecting the water quality from a scientific standpoint, but of involving local residents and stakeholders in a change process relating to a range of well-beings relating to the environment, economy, cultural and spiritual values and social well-being. A restrictive nitrogen policy impacts on the community in different ways with concerns about economic impacts on agricultural activity but with also prospective benefits for the forestry and tourism sectors. Broader community perceptions also matter because the lake is so widely valued and it contributes much to the vibrancy and vitality of the community. Community perception in the area were recorded in 2000 which showed that 96% of those surveyed stated that clear, clean water was the most highly valued characteristic of the water and that 90% of respondents favoured protection of the lake over economic development (Petch et al 2005, p.4). However, pastoral landholders faced the prospect of a significant loss of income and the risk of devaluation of the value of their farms so the trade-offs required for environmental protection would not prove so easy or straightforward to manage.

The development of a framework of response from Environment Waikato lay in its recognition of the need to move beyond conventional traditional regulatory and scientific approaches. The challenge was to work with the community, and particularly the farming community who would be most affected by the changes, in a more engaged and constructive way. Those directly engaged in the process described it as so:

. . . a focus on participation, information sharing and involvement in developing acceptable community solutions was pursued, with the hope that the approach would engender self-sustaining change. Initial meetings focused on the farming community. These meetings were frank, with disbelief and skepticism expressed openly. Scientists and policy makers were challenged on the facts and were requested to provide further information and undertake new studies specifically in the catchment (Petch et al, 2005, p.4).

As it turned out, scientists and policy makers developed ongoing contact through monthly meetings with the farmers who organized themselves into Taupo Lake Care and local indigenous land holders (Ngati Tuwharetoa) providing a continuing and constructive forum for working out ideas in difference and ultimately a path through the policy maze. Consultations were numerous and ongoing but fostered inclusion and mutual understanding over non-engagement. The changes that were agreed upon included stricter environmental standards for waste disposal in the urban areas and the adoption of less polluting farm management practices so that less nitrogen is leached and increasing emphasis and support given to low nitrogen leaching activities such as forestry, silage and other horticultural crops.

Then leadership role of Environment Waikato in the process has been in its efforts to constructively engage with the stakeholders and to support this engagement with good research and help frame better understanding of options and their impacts. It has been about helping to steer a course through the process of engagement and to respond to issues, debates and concerns as they are discovered. It is not so much about enforcing compliance but of understanding scope for action, accommodation and compromise that can support behaviour change based on the development of long term relationships with the community. It features a willingness to meet with the community at their place to answer their questions and concerns and the ability and capacity to provide new and relevant information to address their concerns (Petch et al 2005, p. 5). It brings together a range of skills and knowledge from within government including science, traditional and local knowledge, economics, and policy development and in community engagement. These were the elements of a more integrated approach to environmental management. As the protagonists saw it as a more involved and exhausting process drawing heavily on community commitment and political will:

The use of trusted advisors (especially for the rural community) and a sharing in the development to solutions and proposal of restricted self-management has increased the sense of self-determination and the willingness to buy into the proposals. Undoubtedly, this would not have been achieved under a science dominated and rules based scenario of change (Petch et al 2005, p. 5)

The project development model at Taupo provided an opportunity for Environment Waikato to show leadership in the development of a process of integrated environmental management. It drew heavily on the extensive knowledge of issues, people, and relationships with stakeholders, extensive scientific and practical knowledge about best practices in farm management. As a process based experience it was an opportunity for the organization to learn about community development and community participation in the development of policy options. It also required substantial political acumen and competence to build alliances of support and overcome community resistance and initial skepticism. Most of all, the Taupo experience enabled project staff to recognize the potential of community members and residents as key partners and actors in the process that displayed resourcefulness, creativity, adaptability and resilience. Project officers also had the opportunity to learn much from the community in terms of the complex of attitudes and perceptions about the environmental, the social and cultural characteristics of the communities and groups, health social infrastructure and educations needs, the complexity of local business and farming ventures as well as insight into the psycho-social dimensions of life in a small rural based town. The value of these direct insights into and about the community is not usually recognized in policy making process. However, the learning from this experience in community immersion and local relationship building is perhaps a critical part of overcoming the challenges presented in the Taupo project.

The Approach in Action: Tokoroa Warm Homes Clean Air Project

The Tokoroa Warm Home Clean Air project was established to address negative effects of poor quality caused by the use of wood fires and heaters. It is overseen by a steering group that works as a partnership including Environment Waikato, South Waikato District Council, Waikato District Health Board and the South Waikato Pacific Island Health Committee. The project outcomes have been formulated around the longer term task of identifying ways to achieve National Environmental Standards (NES) for air pollution, (PM10 emissions¹⁴) by 2013. Long term improvements to air quality provide the rationale and key goal for the project. The projects aims to do this by developing a clear understanding and capacity of the community to address the issues as well as identifying the financial, social and economic barriers facing the various members in the community. Evaluations of the project have are currently in process (April – August 2007), and they include interviews with key government participants as well as Focus Groups with community members to determine levels of awareness of pollution sources and actions, culturally appropriate strategies as part of a process of encouraging people to change their patterns of energy use and choice of heating options. It is recognized that the social circumstances with high levels of deprivation and low income in the community mean that it is less likely that the long term goal can be fully realized.

The approach is intended to deliver a range of benefits including the community the opportunity to develop a clear understanding of health and as well as a better understanding of options environmental issues associated with wood heating as well as the capacity for local residents to manage a transition to new low-polluting heating technologies. The principles to guide the project in all of its phases:

- Initially, raising awareness and information sharing are important steps in encouraging people to make change

¹⁴ PM 10 particulates are tiny particles contained in the smoke from wood fires that can penetrate deep into the respiratory system causing a range of harmful health effects. There are long term adverse effects associated with chronic and continuing exposure to particulates and a range of costs in terms of personal health and community well being and for health care services.

- Raising awareness will encourage change, but it won't achieve the rate of change needed to achieve NES targets by 2013 because of the levels of deprivation in the Tokoroa community which limits the choices people can make
- Each household requires home heating solutions tailored to its needs and circumstances
- Air quality inside as well as outside the home is important
- Accept that wood for fuel is likely to remain an attractive option, as long as it is free in the local community
- The success of community engagement depends on building relationships between regional councils, health sector personnel, territorial authorities and local community groups

The research conducted as part of the project is also enabling the financial, social and economic issues facing each section of the community to be identified. Many project team members are coming to appreciate the value of understanding the social-economic circumstances of community members and using this as a basis to moderate policy prescriptions and argue more positively for incentives and assistance measures. Both process and impact evaluations are being carried out so that we can learn firstly, about the steps and document the steps taken to develop the project that may be able to applied elsewhere. The steps include comparative review of similar projects in other places and counties, the trial conversion of 18 homes in the region and monitoring and analysis of household emission, and changes in knowledge and behaviour within the household, biophysical modeling of the various scenarios and options with appliances buy number and kind, strategy development. The evaluation also considers project impacts in evaluating if project outcomes are being addressed as intended and expected.

The project goals of clean air and realizing NES standards by 2013 are tempered in the recognition that the approach should blend and accommodate a broader range of socio and economic considerations and responses that:. The approach is intended to:

- Favour the least advantaged
- Not make inequalities worse
- Increase people's control over their own lives
- Actively involve users of health services and communities
- Take a comprehensive approach, targeting individuals, whānau, population groups and the environment
- Foster social inclusion and minimise stigmatisation
- Be effective both in the short- and long -term
- Adapt to changing circumstances
- Work with and build the capacity of local organisations and community networks

In application, the project seeks to deliver improving environmental outcomes through blending, balancing and accommodating proposed standards with community needs, inclusion, and by do least harm in other respects to people or disadvantaged groups.

Future Directions

Regional Councils have since the amendment of the Local Government Act 2002, shown an increasing capacity to collect and manage data about environmental performance as well as reporting on community, economic, cultural and social well beings. Strong partnerships have been developed and fostered with crown research agencies, universities and with central and local government. The capacity to support research and the information needs upon which good policy can be based are progressing on a sound. The organization has also As recommended by the Strategic Consultative Group (1995, p. 15) some of the leading examples of integrated environmental management in the Waikato region (Taupo and Tokoroa), attest to the willingness and capacity of Council to deal successfully with some of the more complex big picture programmes. Council is well on the path in its strategies and processes for working with communities and stakeholder groups in working with them to

resolve complex environmental challenges on local and sub-regional (catchment) bases. Linked to these more integrated approaches has been the opportunity to introduce an extended range of policy instruments, economic or market based instruments, incentives, levies and taxes that link environmental costs to economic activities that move beyond the traditional regulatory and rules based approaches.

Denne 2006 notes that economic instruments are widely acclaimed as having potential to achieve environmental objectives at least cost but have been little used in New Zealand. These are becoming more part of the mainstream vocabulary of regional councils, albeit on a gradual and incremental bases of learning and experimentation. The Tokoroa project is exploring the constructive use of incentives and future water quality projects are considering ways of leveraging differential rates and charges to support different patterns of land use and foster changes and attitudes and behaviour in farm-based management practices. The challenge is not just to recognize and report on community outcomes and expectations but to develop a mix of new policy tools and instruments that enable these visions to be better realized and implemented. This is a particular challenge in New Zealand, given as the recent OECD Environmental review of New Zealand notes, that “the policy mix remains focused on regulatory and voluntary approaches, with economic instruments underused”. Much current and emerging project work recognizes the scope and opportunity to redress this imbalance by adding to the strengths in information and research and the willingness for experimentation in the quest for more integrated approaches to environmental management.

Future work can be expected at exploring the application of this broader range of tools for use at the regional level¹⁵, particularly in advancing the shift away from regulatory controls and processes aimed at achieving good environmental outcomes. It will represent an additional level of departure from the consents based requirements of the RMA Act 1981 and support the evolving transition towards more integrated environmental management. It is likely that the same concepts and tools will increase in currency and application in the context of strategies to manage carbon emissions and so the potential for further policy integration will be further enhanced.

¹⁵ According to Denne, 2006, economic instruments are policy tools that affect the monetary costs or benefits of private actions by changing market values or introducing markets where they did not exist. These make take the form of charges that may be used to reduce environmental impacts, subsidies and tradable use rights. They may also be used as a way of putting a charge in monetary terms on environmental damage and so help reduce emissions.

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