Rural local governments: barriers to environmental sustainability

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ABSTRACT

The literature on local government management of the environment in Australia has been limited in that it has typically focused on the urban sphere. In contrast, this paper places rurality at the centre of its inquiry. It uses data from fifteen case studies of rural local governments in Australia to identify the main factors that inhibit environmental management by rural councils. These barriers mobilise around four key themes. They are: capacity, commitment, co-ordination and community. While many of the issues raised in this study of non-urban shires have been described in previous research, the paper argues that the geographic location of the areas under investigation aggravate barriers to engaging sustainability initiatives. It is contended that rural local governments need to be resourced accordingly to ensure that natural resource management at the local government level in Australia is not compromised.

Keywords: Local Government, Rural, Environment

INTRODUCTION

Over a decade ago Keen and Mercer (1993: 94) noted that 'it should be emphasised that the focus of interest' in environmental management in local governments across Australia was 'largely metropolitan.' Since this time, however, researchers have demonstrated little interest in examining why this may be the case and in identifying the types of barriers that may impede natural resource management by rural local governments. In light of this neglect this paper makes a specific contribution to the literature on local government and environmental sustainability by placing rurality at the centre of its inquiry. The key purpose is to document and examine the constraints to environmental progress by rural local governments in Australia.

The paper is divided into eight main sections. It begins by providing some background information on local government in Australia before reviewing the literature on the subject of impediments to local government environmental management. Following this, the methodology for the study is outlined. The

next four sections of the paper document the barriers to rural local governments' management of natural resources in Australia around four main themes. These are: commitment, capacity, co-ordination and community. The conclusion emphasises that while constraints to environmental management may also exist for metropolitan councils, they will be exacerbated in a rural context.

Local government in Australia

There are 721 local government authorities in Australia. There is significant diversity between these in terms of geographic size and population. Typically those with larger areas and a smaller number of residents are those located in rural and regional areas. While the average population of local governing bodies is 26,400, half of the councils have fewer than 6,490 residents (Commonwealth of Australia, 2003: 5). These sparsely populated councils often have large geographic areas as is evidenced by the very large Shire of East Pilbara in Western Australia which covers a massive 378, 533 square kilometres.

Unlike many of their international counterparts, local governments in Australia traditionally were responsible for a set of narrowly defined services provided through property levies (McNeill, 1997; Aulich, 1999). This was the source of the axiom that positioned local government as concerned solely, or largely with 'roads, rates and rubbish'. Since 1989, however, all states have instigated new local government acts which has resulted in the sector having a much broader brief, including responsibilities for community development, economic growth and environmental management (Wensing, 1997).

As the state and federal governments have devolved a number of responsibilities to their third tier counterpart the financial pressure on local governments has been significant (Johnson, 2003). The challenge faced by local governments in dealing with increased responsibilities is aggravated by the fact that they have limited capacity to raise revenue. Over fifty per cent of their funds are gathered through land taxes or rates (National Office of Local Government, 2001). While rates clearly differ markedly between rural areas Binning and Young (1999b: 32) note that 'the majority of rural rates would lie in a

fairly tightly clustered group towards the lower end of the spectrum'. Attempts by councils to increase revenue by raising rates are problematic on two counts. First, any move to increase rates is 'notoriously unpopular' and most typically leads to community outrage (Wild River, 2003: 341). Second, some state governments have utilised their power over local government to cap rates. In these instances the state Minister of Local Government sets the limit by which councils can increase the total income it receives through ordinary and special rates. Councils have complained bitterly about this imposition (Commonwealth of Australia, 2003) which contributes to the financial pressure they experience (Johnson, 2003).

While local government is typically positioned as less important than the federal or state levels of government in Australia, commentators concur on its importance in environmental matters (Bates 1995; Buhrs and Aplin, 1999; Binning and Young, 1999a, 1999b; Adams and Hine, 1999). They cite local government's proximity to community, its potential to interpret and integrate federal and state environmental policy successfully so that it is meaningful at a regional level and its traditional and well entrenched roles in planning as being indicative of this importance. Given this potential it is important to understand more about the types of barriers that may restrict the environmental activities of local government. The following section of the paper reviews the Australian literature which has considered this question.

Local government and environmental sustainability in Australia
The beginning shift to greater environmental management by local governments in Australia was first documented by Keen and Mercer (1993) in reporting on a program in the state of Victoria in the period 1988-1990. With 'seed' funding from the state government, 23 Victorian local municipalities developed Local Conservation Strategies (LCSs), which identified local environment concerns and actions to address them. Using survey and interview data with a number of personnel involved in the LCS process, Keen and Mercer (1993) highlighted the types of barriers to the development of the strategy documents

and to their subsequent implementation. Under the category of 'inter-governmental relations' they described the problem of limited financial resources as well as the temporary and ad hoc nature by which grants are allocated. Also problematic, they reported, was the lack of trust between governments. Keen and Mercer (1993) also noted the problem of a scarcity of information and resources for local governments concerned with environmental management. A final barrier to environmental management in the sector they reported was a fear of change, which they saw as inherent to the culture of local government.

In a subsequent paper elaborating on the emergence of LCSs in Victoria, Keen et al. (1994) provided further insight into the types of factors that may limit environmental activity at the local government level in Australia. They began by reiterating the fact that the cost of developing an environmental strategy can be prohibitive for many local governments. However, they then raised further potential constraints to a local government developing an environmental ethic. They noted that unless the community is involved in a significant manner at the grassroots level in the development of a LCS its chances of success are limited. Also imperative, they suggested, is having senior managers who support and champion environmental goals.

The majority of the authorities that were the subject of Keen and Mercer's (1993) and Keen et al. (1994) studies were located in metropolitan Victoria. Thus their study tells us little about the particular problems that may be faced by rural local governments in seeking to progress environmental policy. A similar limitation exists with a study by Whittaker (1997), which examined Australian progress with Local Agenda 21 as its methodology provided insight only to those councils which are 'willing and able' to implement the agenda. As Mercer and Jotkowitz (2000: 170) comment in reviewing Whittaker's (1997) research, 'what is clear is that "the environment" is very largely a stated policy priority for metropolitan rather than rural councils. Despite this, Whitaker's (1997: 324) identification of barriers confirms the

findings of previous work (Keen and Mercer, 1993; Keen et al., 1994) in highlighting the importance of a lack of finance, expertise, information and state and federal government support.

In a more recent study again focusing on the state of Victoria, Mercer and Jotkowitz (2000) focus attention on evaluating environmental progress by local government. In the process they necessarily turn to the question of barriers arguing that 'there can be no possibility of genuine progress in making sustainability work at the local level' without a change in state and federal funding to the local level and without a shift in powers to local government (Mercer and Jotkowitz, 2000: 166). They cite a range of examples to illustrate the veracity of their claim, but highlight as particularly problematic in disempowering local citizens and local government, forced amalgamations by state government.

Emerging alongside the academic literature on local government environmental management in Australia has been a series of reports on the subject commissioned by various national and state level local government advocacy groups (e.g. Australian Local Government Association, 2005; Municipal Association of Victoria (MAV), 2002, 2003 ; Local Government Association of NSW and Shires Association of NSW, 2003a, 2003b). This body of work has been important on two counts. First, it has confirmed findings from scholarly published work. In a Victorian study of weed management, for example, the major barriers identified were again those of a lack of staff time and numbers, funding and other resources (MAV, 2003). The second factor that has made these association reports useful is that they have drawn particular attention to the need to further investigate the particular concerns faced by rural local governments. This was a key finding of an earlier survey of Victorian councils which reported 'major differences between metropolitan and rural councils' in terms of number of dedicated environmental officers on staff and development of new environmental strategies (MAV, 2002: 9).

METHODOLOGY

Data for this paper were obtained from 15 case studies of Australian rural local governments across the states of New South Wales, Victoria, Queensland and Western Australia (See Table 1). While a positivist approach would sample through quantitative means in accordance with the principles of statistical validity and generalisability, the case study uses purposeful or criterion based sampling (Ritchie et al., 2002). These included size, environmental problems, historical interest in environmental issues at a state level and types of resourcing provided for local government and environmental issues at a state level.

Each of the case studies involved interviews and document analysis. Sampling procedures for selecting in-depth interviewing used purposeful or theoretical sampling rather than statistical sampling (Ritchie, et al., 2002). . In this study the informants considered most critical were mayors, CEOs, councillors and particularly those with portfolio responsibilities for natural resource management, environmental officers and/or managers and members of regional natural resource management boards with responsibility for local government. In total sixty-nine interviews were undertaken across the 15 case studies with an average of 6 to 7 per case study. All interviews were taped and transcribed in full to assist with analysis.

Interviews took approximately one hour and were 'lightly structured' (Wengraf, 2001: 111) in that while a list of questions was prepared and all interviews covered the set questions, there was enough flexibility in the process for participant responses to inform the structure of the interviews. Interviews began with questions about the respondent's background and role and responsibilities. Following this, a series of questions was asked about the types of environmental problems facing the shire and the ways in which these were managed in terms of planning, monitoring, resourcing and evaluation. This typically opened up a conversation about the types of barriers being faced by rural local governments in relation to natural resource management. The method was thus useful for providing the opportunity for questions to be contextualised and for participants to expand on issues or raise themes that had not been anticipated (Mason, 2002).

A final type of data collection within the case study sites was document analysis. Documents sourced included council newsletters, local newspaper reports relating to the council and environment and state, regional and local natural resource management plans and evaluation reports. Analysing documents was important in triangulating the study as well as in providing a more comprehensive understanding of each of the case study sites (Yin, 2002).

Capacity

Participants in the study introduced the topic of limited capacity for environmental management by referring to factors such as agricultural restructuring, the aging of the population, drought and the reduction in the number of people farming. It was common for participants to argue that it was impossible to prioritise natural resource management when they were facing more immediate concerns. In one Queensland case study town (QLD4), for example, which had experienced the closure of three major employers over the last decade losing 2000 permanent jobs the Mayor stated:

It's not that the environment isn't a concern but that we've had other more pressing matters. Employment has been the biggest. Just getting people jobs so that some would stay and they would be able to live. The town was decimated economically.

In this case study and elsewhere, the same concern was raised in relation to the devolution of state and federal government roles to local government. Furthermore, participants argued that this was causing particular problems for rural councils. That is, rural councils are already under-resourced and over-stretched, and yet there is pressure on them to undertake service work that has previously been the responsibility of other tiers of government (e.g. run the post-office, aged care work). With so many demands being placed on rural local governments it was necessary one participant explained to 'draw the line somewhere'. This perspective resonated throughout a number of interviews as the following quotation from a Queensland mayor (QLD4) illustrates:

We've had so many responsibilities devolved to us and we just can't deal with everything. We don't have the money for a start or the time. But there's also the problem that we need to be experts in all these areas and we just can't be.

The quotation above highlights the important point that capacity does not, of course, simply refer to financial resources. Also critical are human resources in terms of knowledge, skill and community involvement. These may always have been issues for rural local governments. However, the changing demographics of rural communities and the hardship facing many people on the land have aggravated the problem according to participants. This was well illustrated in one Victorian case study town (VIC1), which had experienced a period of severe and prolonged drought. In the past the shire had a reputation for being at the forefront of proactive natural resource management, having won numerous state and national land care awards. With economies of scale and aggregation of properties however, the local population is both diminishing and ageing and the pool of volunteers becomes smaller all the time. Five years ago there were 16 local environmental groups. In 2005 there were twelve.

Rural local government participants acknowledged that there was money available for environmental management through state and federal grants. However, they saw these as problematic for two reasons. First, they required resources in terms of personnel, expertise and time to access the grant. Second, and perhaps more importantly, they expressed distrust that funding would continue into the future.

An extensive literature has documented the decline in rural Australia over the past decade (e.g. Pritchard and McManus, 2001; Gray and Lawrence, 2003; Cocklin and Dibden, 2005). The negative impact that this has had on rural local governments has also been noted by scholars (Daly, 2001; Tonts, 2005). The data in this study have taken us one step further. That is, they have shown environmental sustainability to be another casualty of the reduced capacity of rural Australia, and particularly, the reduced capacity of rural local governments.

Commitment

It was positive that there were only two case study sites where an environmental officer was not on staff. However, interviews with environmental officers revealed that their presence was not enough to facilitate change. This is because the achievements of an officer are mediated by the extent to which there is a clear commitment to sustainability articulated by senior council managers. A limited commitment resulted in a lack of resourcing, a failure to challenge less supportive staff and elective members and the positioning of the officer in a low level in the organisational hierarchy. Without committed senior officers environmental staff also found themselves with impossible workloads as was the case of one officer who works across four shires. They also found themselves responsible for a very narrowly defined agenda such as weed management, stock route maintenance or management of feral animals.

Those case study participants who expressed a low level of commitment to environmental management justified their position in a number of ways. The first was to argue that local government has no legislative responsibility for environmental sustainability. It was, in contrast, seen as a state role. These participants used terms such as 'core business' and 'real work' to dismiss the importance of an environmental focus. The second was to contend that there is a commitment to the environment, but that this could not be addressed because of other more pressing commitments such as economic development. Implicit in this argument is the belief that environmental goals are not necessarily in sympathy with these other commitments. Also integral to this argument is the belief that environmental gaols are a luxury or an added extra rather than critical to the future well-being of the community and the district. As one Mayor reflected:

If we had all of our roads and all of our parks and all of our local government - - our core local government infrastructure and systems and processes and skills and everything real Mickey mouse, and then we had spare resources, then I'd say, sure, we can put something into the budget that's not core local government business like natural resource management.

In this council, as in other case studies, it was stated that the only way funding would be allocated to meeting environmental goals would be if these were tied to a development project. The subordination of the environmental agenda to other agendas in this shire and in other case study shires was thus connected to a limited understanding that there is a link between the health of the natural systems and the economic wellbeing of a shire. Thus, this also operates as a key constraint to the engagement of an environmental agenda in rural local governments.

Co-ordination

Australia's three tiered system of government makes for a complicated environmental policy and legislative arena. The local governments that participated in this research argued that there are too many agencies to which they are answerable and that there is too much policy ambiguity surrounding the environment. The lack of integration between the different agencies and approaches and the inconsistent consultation between the state and federal governments and the local authorities were recurring themes in the interviews. When asked how he saw his environmental responsibilities as a local government representative differ from those of the state and federal governments one mayor joked, 'If you find out tell me'.

Rural local government participants expressed the view that there is limited recognition from other tiers of government of their efforts in terms of environmental management. They argued state governments were more interested in having a punitive rather than collaborative relationship with local governments when it came to the environment. This was enunciated by a NSW2 council employee who argued that the environmental agenda for his council was dictated by the state government performance measures rather than by what was needed locally. He said:

I'll deal with the ones that we get into trouble for basically because that's how you've got to deal with it otherwise you end up basically getting into strife. You end up on their black list.

In these discussions participants again highlighted their legislative and financial powerlessness compared with the state and federal governments. To complicate the issue, over the last two decades in Australia natural resource management issues have increasingly been viewed on a regional or catchment scale because, logically, natural resources are not bound by an artificial line that delineates one local government authority from another (Conacher and Conacher, 2000). A significant barrier to environmental sustainability in rural Australia surrounds these new institutions and their relationship with local governments. In some instances this is because the arrangements are not yet finalised. As one NSW mayor noted, 'We don't fully understand our role in the catchment management authority plan as yet…It's really unclear'.

In other instances shires were clearer about their roles but demonstrated low levels of engagement in their regional environmental authorities. There were a number of reasons participants expressed negativity towards regional natural resource management authorities. The first was a belief that this was a top-down strategy that had been imposed on local government rather than initiated by them. This was connected to their perception that other tiers of government deemed them incapable of dealing with natural resource management. The second concern related to the significant funding participants saw being directed to regional bodies which they thought would be better directed at local governments or through local governments. A third criticism concerned the perception that the regional authorities simply added another unnecessary and unproductive bureaucratic layer to what was already a complex institutional arena. A final criticism of the regional authorities was that local governments had not been resourced to facilitate their interaction with these bodies. It was not unusual for some shires to have to work across two regional authorities. With a small staff and a smaller number of unpaid councillors who were in full-time work attendance at meetings was problematic particularly when large distances were involved. The large geographic areas of some of the rural shires mean that a number are part of more than one regional catchment group. This again extends their workload despite their limited resources.

Community

The final group of barriers to local government engagement in environmental sustainability identified by participants focused on the community itself. Participants advocating this view believe there is not broad public support for council taking a more active role in relation to the environment. There are a number of dimensions to this argument. The first is that rural shires are traditional and conservative and therefore unlikely to be interested in what may be seen as radical, green agendas. The presence, in rural areas, of a large population of farmers, was also seen to negate community interest in the environment. In one western New South Wales case study (NSW4) two newly employed environmental officers lamented the fact that there had not been a strong historical community interest in the environment. One stated:

In the far west the problem is there's not a lot of pressure for change. Not like on the coast where the impacts are really obvious or recognised. You have people there who are more aware as well of the issues. It's an education thing. But we're starting to see it here now.

Councillors and staff interviewed also expressed the view that a focus on the environment could lead to public criticism as the public would want to know why resources were being diverted away from services and infrastructure when they clearly needed attention. There was also speculation that an environmental agenda could result in community disapproval as it could be associated with a radical agenda.

Few strategies are utilised by the majority of rural councils to engage the community in natural resource management. The lack of attention afforded to community engagement for sustainability was legitimised by arguing that practices to promote citizen involvement were unnecessary in rural towns where people knew each other and had ready access to their councillors. Echoing this sentiment was a councillor in NSW4 who stated, 'Consultation is nearly irrelevant here. Broadly we know what the (natural resource management) issues are and what a lot of the priorities are'. It was also suggested that the expenditure of

money and time for community engagement was unproductive when such practices did not necessarily translate into what was considered to be tangible outcomes.

An important body of scholarly work has now documented the importance of community involvement to achieve environmental outcomes (Curtis et al., 1999; Parker and Selman, 1999). There was, however, little support for the sentiments expressed in this literature in the case study sites. In arguing community involvement and consultation was unnecessary, unneeded and unproductive participants highlighted their rurality. That is, rural residents are typically farmers and therefore less interested in environmental issues. Further, rural people are usually more practically oriented and interested in outcomes rather than what were labelled 'talk-fests.' Finally, rural people and their councillors are well known to each other and have ready access to each other so formal arrangements for consultation are unnecessary.

CONCLUSION

This paper has described findings from 15 case studies of local government management of natural resources in rural Australia in order to highlight the barriers to environmental engagement for non-metropolitan shires. Data from the case studies have been analysed according to four key themes; community, capacity, coordination and commitment. The types of barriers discussed in the paper echo findings from research on impediments to local government environmental engagement internationally (e.g. Voisey et al., 1996; Tuxworth, 1996; Vigar, 2000; Enticott and Walker, 2005). They also confirm findings from previous Australian literature examining the factors that may frustrate sustainability efforts at the local level (e.g. Allan and Lovett, 1997; Crowley, 1998; Bulkeley, 2000; Atkinson et al., 2003; Australian Local Government Association & Biological Diversity Advisory Council, 2000; Keen and Mercer, 1993; Keen et al., 1994; Whittaker, 1996; Mercer and Jotkowitz, 2000; Morrison et al., 2004).

What is different about the research reported in this paper is that it has given particular empirical emphasis to the problems experienced by rural local governments. Given the resonance between the

findings of this study and the broader literature it seems that there may be little difference in the *types* of problems faced by rural and metropolitan municipalities either nationally or internationally. However, there is likely to be a difference in both the *magnitude* of the problems faced and the *capacity* of the local government areas to address these problems. This is of particular concern given that reports indicate that rural and regional areas in Australia face extensive natural resource management problems (Gray and Lawrence, 2003; Beer et al., 2003; NLWRA, 2001). Clearly, unless state and federal governments recognise the particular impediments non-metropolitan local governments face in addressing the environment and resource them accordingly, there is little hope of reducing or preventing further environmental degradation in rural Australia.

REFERENCES

Adams, G. and Hine, M. (1999) 'Local environmental policy making in Australia', in K. Walker and K. Crowley, (eds.), *Australian Environmental Policy: Studies in Decline and Devolution, (2nd ed.)* (Sydney: University of New South Wales Press).

Allan, J. and Lovett, S. (1997) 'Managing water for the environment: impediments and challenges', *Australian Journal of Environmental Management* 4(4): 200-210.

Atkinson, N., Rogers, N. and Lyon, P. (2003) *Victorian Local Government Weed Management Report* (Melbourne: Municipal Association of Victoria).

Aulich, C. (1999) 'From convergence to divergence: reforming Australian local government', *Australian Journal of Public Administration* 58: 12-23.

Australian Local Government Association (2005) '2004-2005 National NRM Survey of Local Government', *http://www.alga.asn.au/policy/environment/nrm/survey* (Accessed 31/5/2005).

Australian Local Government Association and Biological Diversity Advisory Council (2000) *National Local Government Biodiversity Strategy* (Canberra: ALGA).

Bates, G. (1995) *Environmental law in Australia* (Australia: Butterworths).

Beer, A., Maude, A. and Pritchard, B. (2003) *Developing Australia's Regions* (Sydney: UNSW Press).

Binning, C. and Young, M. (1999a) *Opportunity denied: review of the legislative ability of local government to conserve native vegetation* (Canberra: Environment Australia).

Binning, C. and Young, M. (1999b) *Conservation Hindered: the impact of local government rates and state land taxes on the conservation of native vegetation* (Canberra: Environment Australia).

Buhrs, T. and Aplin, G. (1999) 'Pathways towards sustainability: The Australian approach', *Journal of Environmental Planning and Management* 42(3): 315-340.

Bulkeley, H. (2000) 'Down to earth: local government and greenhouse policy in Australia', *Australian geographer* 31(3): 289-308.

Burns, R. (1990) *Introduction to Research Methods* (Melbourne: Longman Cheshire).

Cocklin, C. and Dibden, J. (eds.) (2005) *Sustainability and change in rural Australia* (Sydney: UNSW Press).

Commonwealth of Australia. (2003) *Rates and Taxes: A Fair Share for Responsible Local Government* (Canberra: House of Representatives Standing Committee on Economics, Finance and Public Administration).

Conacher, A & Conacher, J (2000) *Environmental Planning and Management in Australia*, (Melbourne: Oxford University Press).

Crowley, K. (1998) 'Glocalisation and ecological modernity: challenges for environmental governance in Australia', *Local Environment* 3(1): 91-97.

Curtis, A., Britton, A. and Sobels, J. (1999) 'Landcare networks in Australia: state-sponsored participation through local organisations', *Journal of Environmental Planning and Management* 42(10): 5-21.

Daly M. (2001) 'The challenges for local government in the 21st century'. in B. Pritchard and P. McManus (eds)., pp. 195-217, *Land of Discontent* (Sydney: University of New South Wales Press).

Enticott, G. and Walker, R. M. (2005) 'Environmental sustainability and management reform in local government: an empirical analysis', *Policy and Politics* 33(2): 297-322.

Gray, I. and Lawrence, G. (2003) *A Future for Regional Australia* (Cambridge: Cambridge University Press).

Johnson, A. (2003) 'Financing local government in Australia', in B. Dollery, N. Marshall and A. Worthington (eds.), pp. 37-62, *Reshaping Australian local government* (Sydney: UNSW Press).

Keen, M. and Mercer, D. (1993) 'Environmental planning at the local level: The example of local conservation strategies in Victoria, Australia', *The Environmentalist* 13(2): 83-95.

Keen, M., Mercer, D. and Woodfull, J. (1994) 'Approaches to environmental management at the Australian local government level: initiatives and limitations', *Environmental Politics* 3: 43-67.

Local Government Association of NSW and Shires Association of NSW (2003) *The Role of Local Government in the Sustainable Management of the Natural Resources of NSW* (Sydney: Local Government Association of NSW and Shires Association of NSW).

Local Government Association of NSW and Shires Association of NSW (2003) *Natural Resource Management survey of the Needs of Councils* (Sydney: Local Government Association of NSW and Shires Association of NSW).

Mason, J. (2002) 'Qualitative interviewing: Asking, listening and interpreting', in Tim May (ed.), pp. 225-241, *Qualitative Research in Action* (London: Sage).

Mercer, D & Jotkowitz, B (2000) 'Local Agenda 21 and barriers to sustainability at the local government level in Victoria, Australia', *Australian Geographer* 31, 2: 163-181.

McNeill, J. (1997) 'Local government in the Australian federal system' in B. Dollery and N. Marshall (eds.), pp. 17-39, *Australian Local government: reform and renewal* (Melbourne: Macmillan).

Morrison, T. H, McDonald, G. T. and Lane, M. B. (2004) 'Integrating natural resource management for better environmental outcomes', *Australian Geographer* 35(3): 243-258.

Municipal Association of Victoria (2002) *Victorian Local Government Environment Management Survey: Programs, resources and management approaches* (Melbourne: Municipal Association of Victoria).

Municipal Association of Victoria (2003) *Victorian Local Government Weed Management Report* (Melbourne: Municipal Association of Victoria).

National Land and Water Resources Audit (NLWRA) (2001) *Australian Water Resources Assessment 2000* (Canberra: Commonwealth of Australia).

National Office of Local Government (2001) *Local government national report 1999-2000 report on the operation of the local government (financial assistance) act 1995* (Canberra: Commonwealth department of transport and Regional Services).

Parker, J. and Selman, P. (1999) 'Local government, local people and Local Agenda 21', in S. Buckingham-Hatfield and S. Percy (eds.), pp. 18-29, *Constructing Local Environmental Agendas* (London: Routledge).

Pritchard, B. and McManus, P. (eds.) (2001) *Land of Discontent* (Sydney: UNSW Press).

Ritchie, J., Lewis J. and Elam, G. (2002) *Designing and Selecting Samples: Qualitative research in practic*e, pp. 77-108 (London: Sage).

Sammels, B (2004) 'Conference introduction', in *WA Sea Change Conference Papers*, City of Rockingham, Rockingham.

Tonts, M. (2005) 'Government policy and rural sustainability', in Chris Cocklin and Jacqui Dibden (eds.), pp. 194-211, *Sustainability and change in rural Australia* (Sydney: UNSW Press).

Tuxworth, B. (1996) 'From environment to sustainability: surveys and analysis of Local Agenda 21 process development in UK local authorities', *Local Environment* 1(3): 277-297.

Vigar, G. (2000) 'Local "barriers" to environmentally sustainable transport planning', *Local Environment* 5(1): 19-32.

Voisey, H., Beuermann, C., Sverdrup, L. A. and O'Riordan, T. (1996) 'The political significance of local agenda 21: the early stages of some European experience', *Local Environment* 1(1): 33-50.

Wengraf, T. (2001) *Qualitative Research Interviewing* (London: Sage).

Wensing, E. (1997) 'The process of local government reform. Legislative change in the states', in N. Marshall and B. Dollery (eds.), pp. 89-102, *Australian local government, reform and renewal* (Melbourne: Macmillan Education Australia).

Whittaker, S. (1996) 'Local Government in Australia and Local Agenda 21'. Occasional Paper Series No 3, *National Local Sustainability Survey,* (Melbourne: Environs Australia).

Whittaker, S. (1997) 'Are Australian councils "willing and able" to implement Local Agenda 21?', *Local Environment* 2: 319-328.

Wild River, S. (2003) 'Local government', in S. Dovers and S. Wild River (eds.), *Managing Australia's Environment* (Sydney: The Federation Press).

Yin, R. (2002) *Case Study Research Design and Methods* (Thousand Oaks: Sage).

Table 1: Case study summary table

Case Study	Pop	Size square metre	Council size	No. of Council Staff	Environ- mental officer
QLD1	1 000	3955	8	65	Yes (quarter time)
QLD2	16 000	13 660	10	130	Yes (quarter time)
QLD3	15 900	2 644	9	160	Yes
QLD4	13 000	21 121	9	140	No
NSW1	13 000	6 000	13	170	Yes
NSW2	15 000	6 000	10	180	Yes
NSW3	4 000	2 000	7	70	Yes
NSW4	13 000	3 970	9	100	Yes
WA1	750	10 130	7	30	Yes
WA2	1 200	2 000	11	27	Part-time
WA3	4 400	3 300	10	50	No
WA4	25 000	1 400	13	200	Yes
VIC1	6 200	7 500	6	110	Yes
VIC2	9 000	4 500	5	80	Yes
VIC3	15 000	2 000	7	143	Yes