To what extent has transformability been built?
Outcomes from Murray CMA's engagement with the
Transformation for Resilient Landscapes and Communities project, 2009-2012

A report by Michael Mitchell

Adjunct Research Fellow, Institute for Land, Water & Society, Charles Sturt University

Contents

1. Introduction

This report provides an analysis of evidence acquired through observation and interviews with participants on the outcomes of a three year participatory action research project with Murray Catchment Management Authority (CMA). The *Transformation for Resilient Landscapes and Communities* project aims to explore how to build transformability by actually seeking to build transformability with partner organisations. Much of the project's initial efforts focused on supporting Murray CMA's collaboration with a local government authority, Wakool Shire Council, located at the most western end of the Murray CMA region. The project explored the potential of building a collaborative space to nurture intentional transformative action out of what appeared in 2009 to be an untenable situation for the Wakool Shire. This report includes an analysis of what happened to this experiment in Wakool Shire to better understand why our collaborative efforts to build transformability were not successful. The report then focuses on the significant changes that have been implemented by Murray CMA and the extent that these changes may have increased the capacity for both adaptability and transformability. It draws on interviews to document an evolving organisational change narrative as perceived by key participants in June 2012.

The report proceeds with an overview of the wider governance context within which Murray CMA operates, underlining the significance of the new directions Murray CMA is taking to improve its interventions in natural resource management (NRM). The outcomes of the Wakool experiment are then evaluated, followed by an analysis of the changes implemented by Murray CMA. This report has been written as a stand-alone account to be appended to a report to RIRDC under preparation that summarises our key learnings after three years of the *Transformation for Resilient Landscapes and Communities* project.

2. The wider NRM context[1]

Governance of natural resource management in Australia is polycentric and multi-level (Bellamy, 2007), and constantly reshapes itself and evolves as a result of periodic political intervention and ongoing interaction between centres of decision making within and between levels in the system. It is within this dynamic system of governance where change rather than stability is the norm that recognised regional NRM bodies such as Murray CMA operate.

Structurally there are some key formal relationships and dependencies within the system.

1. Australia's constitutional responsibility for natural resources is vested with the States which have evolved their own particular institutional arrangements for dealing with that responsibility. In Queensland and WA the linkages between NRM bodies and government agencies are not statutory while the Territories (Northern Territory and ACT) are both a region and a Territory at the same time. Tasmania has overarching legislation though exerts little formal control over the three NRM regions. NSW, Victoria and South Australia have strong legislative frameworks in place including establishment and direction over regional bodies. All three of these states have devolved some regulatory functions to their regional NRM bodies though these regulatory roles are different in each state. The Murray CMA is

---

[1] This section was written by Rod Griffith

situated in the State of NSW and therefore operates as an Authority of the State under Ministerial direction. The NSW Government currently provides core administrative funding and channels some of its NRM funding through the CMA as a service delivery agent. The key regulatory role for CMAs is related to the *Native Vegetation Act* though this is restricted to an assessment rather than compliance function. CMAs are also able to access other funds for NRM, notably those provided under Federal Government initiatives such as the *Caring for Our Country* program, as discussed at point 3 below.

2. The Murray CMA has a statutory link to the Natural Resources Commission (NRC) which is an independent body established to advise the NSW government on the functioning of the NRM system. The NRC is a relatively unique organisation in Australia, and its independent positioning has enabled it to become an engine room for blue sky strategies related to NRM. One of its particular roles is to determine whether the regional strategic planning documents developed by the CMAs – known as Catchment Action Plans (CAPs) – are likely to deliver on state wide NRM targets and whether CMAs are implementing and complying with the NSW Standard for Quality NRM (Natural Resources Commission, 2005). The auditing of CAPs is the primary mechanism for promoting adaptive management and continual improvement of performance and in ascertaining compliance with the Standard. Through this mechanism, the NRC is both auditor and advocate for change. The Murray CMA participated in initial business systems assessments in 2005, was formally audited along with other CMAs in 2007/2008 with poor results, and audited again voluntarily in 2010.

   The NRC assisted the government to develop an NRM goal in 2005 to frame the associated Standard and a set of state-wide NRM Targets (Natural Resources Commission, 2005). The goal embodies the notion of 'resilient and ecologically sustainable landscapes functioning effectively at all scales'. Initially this was pursued through the ideal of a strategic, knowledge driven and spatially explicit assets approach to NRM which was also in favour in other jurisdictions. After questioning what was meant by the term resilient landscapes, considerable attention was paid to how resilience thinking could be applied in NRM and the implications of such a new frame, culminating in the publication of a framework for assessing the next round of CAPs (Natural Resources Commission, 2011). As part of this process, the NRC developed some initial guidelines in 2010 and established two pilot processes for CAP upgrades in the Namoi and Central West regions. The basic principles of taking a landscape systems approach and ensuring whole of government/whole of community buy-in were subsequently enshrined in a set of assessment criteria for CAP upgrades providing the Murray CMA with some additional governance challenges.

3. Since about the late 1980s the Commonwealth has taken an increasingly prominent role in natural resource management. The significance of the Commonwealth as an investor and institutional force in NRM shifted from a relatively modest program of small grants and hence relationships with localised bodies to a multi-billion dollar program in 1997 when the *Natural Heritage Trust* (NHT) was established from the sale of Telstra. A further shift to recognising a key NRM planning and delivery role for regional bodies and a more strategic approach to investment took place in the early 2000s through NHT2 and the *National Action Plan for Salinity and Water Quality* (NAP). This involved bilateral agreements over joint investment with the States which strengthened the relationship between regional NRM

bodies and the states. A further shift occurred in 2007 with a change in government. The new *Caring for Our Country* program shifted away from bilateralism to direct investment with a range of providers including regional NRM bodies and new agents such as NGOs and commercial providers entering the governance system. This left regional bodies with less funding and more complex relationships to build and nurture. Many bodies had to reassess their structure and functional role as a result. There is an increased emphasis on approaches that are 'whole of government' and 'whole of community', and CMAs could potentially play a key role in facilitating regional 'whole of government' and 'whole of community' collaboration on NRM. More recently the Commonwealth Government has sought to reinvigorate the planning capacity of regional NRM bodies to coordinate activities under climate change and carbon farming initiatives. The impact of this shift on the governance system is yet to emerge.

There are also a plethora of informal relationships, influences and institutions which structure both the wider NRM context and regional NRM governance systems. Some community-based institutions are enduring and have resisted change as the wider system around them has changed. Others become products of whatever funding program is dominant on the day and appear ephemeral. A minority of community-based organisations have been both enduring and adaptive to change. Irrespective of these differences NRM bodies are by necessity closely tied to local communities at a number of institutional levels from farm and locality scale to regional scale. Relationships with Landcare groups and Local Governments for example are inconsistent and variable in benefit with historical factors and attitude to power-sharing playing a big role.

After a period characterised by attempts at uniformity and competition, CMAs too are starting to look sideways at how cross and multi-regional collaboration can improve performance. Informal groups have emerged to deal with shared issues and even to work together on CAPs.

As this very brief overview illustrates a snapshot of NRM governance at any point in time does not tell the full story. Regional bodies in NSW have morphed through several guises since the late 1980s as government policies and community interest, support and political pressures have changed. The CMA era from 2004 until now is built on a narrative provided by the Wentworth Group of Concerned Scientists (2003). With a relatively new conservative government in NSW after a long term Labour regime, change is in the wings. It is likely there will be a shift away from what is perceived as a green NRM agenda focussed on native vegetation protection to a production focus. This may involve structural and functional change including some new roles and responsibilities.

The strong message here is that the Murray CMA, as an example of a regional NRM body, sits in a complex wider system of governance which is adjusting incrementally from day to day and which periodically undergoes more radical reform. The forces driving change are not all working in the one direction and sometimes seem paradoxical resulting in hybrid governance outcomes and a non-linear development trajectory. The governance challenge for Murray CMA is how to establish and maintain a functional and highly legitimate system of regional governance in this dynamic environment in which it has only partial discretion and limitations placed on its flexibility and choice of instruments.

3. An evaluation of the Wakool experiment

3.1. Context

The Wakool experiment evolved in response to the opportunities described above to explore new and more adaptive approaches to governance involving natural resource planning and management. The idea was to explore the opportunity for collaboration between local and regional organisations aimed at supporting a community-led intentional transition to a more sustainable human-nature relationship. The Wakool Shire was suggested by Murray CMA as it was a community facing profound changes in access to the natural resources upon which its identity and livelihood depends. Murray CMA invested in the project, hoping that the process used In Wakool could be rolled out with the 12 other local government authorities across the Murray CMA region, and thus become a key avenue through which the Murray CMA would engage local communities in strategic NRM planning and management.

By the end of 2010 (the first year of the project), the research team had published a report that set out a framework for transformative action involving the Wakool Shire that built synergies between resilience thinking and collective learning (Griffith *et al.*, 2010). At that time, Wakool Shire Council's collaboration with Murray CMA and the research team was perceived as potentially enabling the Council to be ahead of the game with the positive efforts it was taking to plan for a future with less water (see CSU News Feature "Collaboration puts rural communities in front", April 6, 2011, available at http://news.csu.edu.au/director/features.cfm). The Murray Darling Basin Authority's (2010) *Guide to the Proposed Basin Plan* had just been released leading to widespread anger and disillusionment across the Basin due to the extent that irrigation allocations would be reduced. There was also local anger directed at the NSW government for its decision to convert forest reserves along the Murray River into national parks, resulting in the closure of local timber companies. There was great expectation that a process had been established to enable the Wakool Shire community identify innovative ways out of the untenable situation it was facing. This expectation was heightened due to a $200,000 grant to the Shire from late 2010 onwards as part of the second round of the Federal Government's Sustaining Basin Communities program. However, the Council decided to terminate this grant in August 2011 because it was unable to meet the expectations of the grant for reasons discussed below.

A summary of the lessons learned from the failure of this process to evolve as expected is summarised in our 2011 report to RIRDC (Griffith *et al.*, 2011). A key reason for the failure was that the experiment was chiefly initiated from the outside, rather than being driven by the local community. Associated with this was the loss of key local champions for the project. There was a broader recognition that the Shire did not provide the most effective focus for building transformability at the local scale. The end of the drought with flooding rains also encouraged doubts about the need for transformative change. The following analysis builds on these lessons. Since the Griffith *et al.* (2011) report was written, Wakool Shire Council withdrew from the *Transformation for Resilient Landscapes and Communities* project at the end of 2011. Interviews were conducted with three Wakool Shire Council staff to document their reflections of the project at that time, seeking in particular to understand why the planning-by-doing process had not eventuated, and why transformability had not been built to the extent anticipated. I was later able

to build on these reflections by discussing the Wakool project as part of my interviews with Murray CMA staff and board members in June 2012.

3.2. Overview of the interviews and analysis methods

The purpose of the interviews conducted in late 2011 was to document reflections of key local participants on the *Transformation for Resilient Landscapes and Communities* project so that learnings from the shared activities could be transferred to others. Given that Wakool had decided to withdraw from the project, two of the three interviews opened with a broad question to elicit their explanations in response to this, by asking what they thought had happened with project, and why. The interviews then proceeded as a discussion of their reflections on the following:

1. The extent that Wakool Shire's capacity to take intentional transformative action had been built (it was important that interviewees understood the concept of transformability, and were given the option to determine the extent that Wakool Shire had this capacity, and whether that capacity had been built);
2. Why the research project had failed to contribute to building this capacity;
3. Why a more linear approach to the community strategic planning process had been adopted by Wakool Shire Council rather than a more evolving, planning-by-doing approach; and
4. Reasons to help explain the community's general reduced interest in championing the projects proposed at the April 6 workshop.

The interviews ended by referring to the following set of six factors that Griffith *et al.* (forthcoming) had identified from the literature as positively influencing transformability. These factors were used to elicit responses on the extent they helped explain why transformability had not been built sufficiently through the project in Wakool.

- Factor 1: Style of leadership – i.e. leaders who adopt a style of leadership that nurtures creative improvisation, embraces new social structures, builds confidence in significant change; leaders who, can work effectively across boundaries, motivate and reassure people during uncertainty and surprise, recognise and if necessary open windows of opportunity; and navigate a community through a turbulent period of transition

- Factor 2: Shadow networks – informal groups that self-organise to explore alternative futures and can quickly offer feasible ways forward when windows of opportunity arise

- Factor 3: Promoting profound learning – creating the conditions that enable profound learning to occur that can help to challenge the assumptions that drive actions and inaction associated with business as usual and/or incremental adaptation

- Factor 4: Systems analysis – the capacity to assess and recognise when existing systems of resource use or governance are not tenable even with adaptation and careful threshold management

- Factor 5: Drawing on multiple knowledges – processes that help to identify new and novel ways of confronting intractable problems by bringing together different types of knowledge within communities and stakeholders

- <u>Factor 6: Adaptive governance</u> – institutional mechanisms that can bridge scales of governance with strategic organisational collaborations that can coordinate the navigation process at multiple scales

The interviews were digitally recorded from which summary notes were produced. These notes incorporated substantial tracts of the interviewees' actual words, but were edited slightly to make the quotes easier to follow. The notes were initially compiled from the responses of the only remaining champion of the project at the time (designated W1). The responses of the other two staff (W2 and W3) were then added for comparison. For the most part, W2 and W3's responses help to substantiate those from W1. In the process of summarising the notes, prominent themes were identified using highlighting format of key representative quotes. These themes are presented in the sections below.

3.3. Interviewee reflections on why transformability was not built

- 3.3.1. We didn't grab the opportunity (responses to Q. 1)

All three interviewees clearly expressed the view that transformability had not been built. The main explanation offered for this outcome was the reactive character of the Wakool community. W1 began by explaining that "*people in Wakool Shire are reactive – there may be individuals out there who aren't reactive but as a rule and as a Council, we are reactive*." W2's response was similar "*we're more of a reactive type of community*," exemplifying this by referring to the tendency to respond to government reforms without foreseeing them. W1's exemplification went further, noting that the community realised there would be a profound impact from just a 10% reduction in water allocations. But instead of thinking about what water reductions will mean for the community, such as considering the possibilities for dryland cropping, their response is to "*just wait and see*" what happens and then react. W3 held out a bit more hope, suggesting that transformability could be built in the future, but at the moment the community is "*in a reactive frame*" – they're "*not taking on the bigger picture*."

Other explanations offered for why the Wakool Shire community's transformability had not been built included that "*the right people aren't meshing together at the moment*" (W3) and the broader governance and financial constraints – there's so much energy being spent on government red tape and there's no capacity for revenue sharing (W2). W1 thought that the Council should have been the leaders to bring the innovative thinkers together. However the representatives on the Council "*haven't stepped up to become leaders.*" They are reluctant, nervous of community meetings, and see themselves as decision makers only (W1).

A clear theme in W1's overall reflections related to the Council's failure to fully grab the opportunity of collaboration offered by Murray CMA and the research team. Indeed, this theme developed out of how W1 responded to the opening question of what happened and why. W1 initially suggested that the Council "*never really got it*" – referring to the thinking around the resilience concept. However, upon reflection, W1 clarified that while they were able to grasp some aspects, "*what we did get we didn't use … we didn't apply it to anything we knew.*" The Council was able to grasp the idea of tipping points because the idea was meaningful to them but they didn't create opportunities to get the councillors to discuss what all these new ideas mean for them. Such discussions, W1

argued "*is where the real learning comes in – you have to apply it to your own reality*." While collaboration was offered to achieve this, "*we didn't take the opportunity*" – and W1 compared this response to that of the Murray CMA "*who did get it, who did use the concepts, who did take the opportunity*," noting that Murray CMA had a reason to be involved; they were supposed to do something with resilience; they came looking for it; they needed to make it real.

W1's views reinforce several of the lessons identified in the 2011 RIRDC report (Griffith *et al.*, 2011). One lesson reinforced is that the drive for change depends on motivation, and is stronger when driven from the inside out. Murray CMA had a reason to be motivated whereas Wakool Shire Council was just responding to an offer that for the most part eluded them. In addition to this, W1's comments emphasise the value of ensuring the organisational leadership is onside: "*we needed to get the councillors on board from the start*" – like W1 observed had happened with the Murray CMA Board and the Boards in Far North Queensland. One reason why this had not happened in Wakool was the impact of losing key champions for the project – i.e. the General Manager and Planning Director, who both left the Council in early 2011. This left W1 as the only champion, plus one of the councillors, who was no longer championing the project at the time of the interview. The loss of the two champions coincided with a key turning point in the project, as described below.

- **3.3.2. Adoption of a linear approach to planning (responses to Q. 3)**

From the research team perspective, we had observed a clear turning point in the approach of the Wakool Shire Council at a workshop in January 2011. It seemed to us that they had adopted a much more linear approach to their community strategic planning process in contrast to the planning-by-doing framework we had proposed in Griffith *et al.* (2010). As we were not present at the Council meeting where this decision had been made, an important part of my interviews was to capture an explanation for what happened from those involved (i.e. W1 and W2; W3 had not commenced employment at this stage). To do this, I first checked with my interviewees that they agreed with our impression that a linear approach had been adopted in place of the proposed planning-by-doing approach. The three interviewees all agreed, and their reasoning was very clear on this point. With the absence of the other champions, W1 had tried to promote the planning-by-doing approach to the other executive staff on the Council, but found that "*I couldn't explain it, I couldn't get it through to them, couldn't make it meaningful to the group*." The idea of an evolutionary plan was "*completely alien to them ... in our world, you have a plan – a physical plan that gets ticked off, and then you implement the plan*." W2 explained that this approach was based on government policy. The policy had set a deadline of 1 July 2012, which became the focal point:

> "*That's where we need to get to. As I said we're reactive. We set out to meet that deadline. After that deadline, you can try to improve your plan and resourcing strategy*" (W2).

So the idea of iterative improvement based on learning from doing was captured by W2, but the view was that this would only happen after the plan had been written up and finalised. The same point had been made by W1 when I had asked if there was any possibility of salvaging a learning-by-doing approach despite the adoption of the linear approach. W1 explained:

> *"What the research team has to understand is that in the minds of Council staff,*
> *the projects coming out of the workshop weren't going to happen until July 2012.*
> *That's when we worry about it. First you write the plan, then you implement the*
> *plan – so the doing was going to happen later"* (W1).

W1's experience at the Council meeting reinforces another of the Griffith *et al.* (2011) learnings to do with language. Local champions have to own the language used to promote the ideas. The transference of ideas comes by applying the ideas to their own local reality, using their own words. At a subsequent workshop in January 2011 involving the research team, the ideas behind the planning-by-doing approach were reasserted in contrast to the Council's more linear approach. W2 noted in the interview that the ideas then started to make sense. However, this seems to be a continuation of the same pattern – of listening to ideas as instructed rather than owning them through application. Interestingly, W2 recognised that the champions' lack of ability to explain the ideas was a factor throughout the process. The initial three champions "*had a fair bit of difficulty getting their heads around*" the ideas. As a result, the ideas were not communicated very well outside that initial focus group, and the other Council directors "*never really got to know what was going on*" (W2).

- 3.3.3. The whole thing fell over at that community meeting (responses to Q. 2 and 4)

Two quite different themes emerged in response to the question exploring why the work of research project had failed to contribute to building transformability. W1 maintained the view that it was about community "*resistance*" – resistance to the idea that Wakool Shire would need to transform. From W1's perspective, resilience was interpreted by the Wakool community as keeping on going in the same way. For that reason, WI asserted that we're never going to build the capacity for transformability with that level of resistance, and I concurred suggesting that it is first necessary to get people over the state of denial. W3 had a similar response, suggesting that there was primarily a "*disconnect*" with the community. The research team's "*brainwork was overall pretty sound*" but most people did not get it.

By comparison, W2 immediately responded to the question by saying that "*I think the whole thing fell over at that community meeting,*" referring to the April 6, 2011 community action workshop. "*I think your facilitator failed,*" W2 added bluntly. In particular, W2 thought that the failure resulted from an inadequate explanation at the outset of the expected outcomes from the workshop – i.e. a specific set of projects with action plans and people who would champion the projects:

> *"I don't think people really understood from the start what was required. Towards*
> *the end you were required to come up with ideas, and then right at the end you*
> *were asked to put your names to them"* (W2).

W2 recounted that, at that stage, "*everybody was ducking for cover, saying I don't want to put my name up there.*" Lots of the people who did put their names forward only did so because somebody had to. W2 also noted that a lot of key people had already given up on the workshop by then. He had lost three people from his table at lunchtime and all tables experienced a loss of participants: "*I tried to get people to come back, but the workshop lost me too – I was disappointed*" (W2).

These problems with the workshop process were also used to explain why there was an overwhelming lack of interest from the community in championing the projects proposed at the workshop. W3 added that "*what we ended up with was more a set of ideas than projects*" – it seemed that the people involved "*were unable to think things through or carry their ideas forward.*" W1 made the same point and described the projects as being "*a wish list ... people banging the drum about stuff without an idea of how it would occur.*" To W1, the projects represented "*the same old stuff*" and continued by noting that "*to make something new emerge you have to have really determined people ... bigger things can take years and it requires a great deal of energy.*"

- ### 3.3.4. Transformability factors not present

For the most part, interviewees responded to the prompts describing the Griffith *et al.* (forthcoming) transformability factors that they were not present. The main exception related to the possible existence of shadow networks, and by extension a particular kind of leadership style that might be present among these networks. All three interviewees posited that there might be shadow networks out there. W1 was the most confident: "*I'm sure some of our councillors are involved in networks – someone who knows someone who know someone else, but that never really comes to the fore.*" Despite this, in W1's view, the Council doesn't connect with the right people – the "*movers and shakers.*" W1 also thought that there are people among these shadow networks who might have the capacity for the kind of leadership that could help transformability but "*we don't have those kinds of leaders on our Council.*" Interestingly, upon hearing the description of the style of leadership that would help build transformability, W2 identified them in a well-known business developer involved with Murray Downs opposite Swan Hill on the NSW (Wakool Shire) side of the border with Victoria. This person was arguably one who could effectively work across boundaries, build confidence in significant change, and open a window of opportunity. However, as W2 noted, it is clear that this person is primarily driven by the financial gain prospects of the Murray Downs endeavour.

W1 suggested that to tap into the existent shadow networks better next time, we'd need to ask the councillors involved in such networks to identify them "*in a different way.*" The people that had been invited to the resilience assessment workshop in June 2010 were all "*safe*" people. The exercise of social network mapping that the research team introduced at the start of the program was very useful, but had not gone far enough. W1 had recommended that the steering committee appointed to oversee the implementation of the community strategic plan from July 2012 onwards comprise innovative thinkers who are connected to these shadow networks, noting that there was still plenty of time to identify the right people to be on the committee. The committee should become more than an advisory group; it should be "*a thinking group.*" W1 felt that if it were established to be such a thinking group, it would become "*something quite different,*" providing "*a grain of hope"* for the community strategic plan. They would be the people driving the plan, starting off by looking at the projects and talking to the champions so that when the plan starts on the 1st of July 2012, they would be the people getting out and making it all happen.

The ability to think deeply in a way that can challenge assumptions might also exist out there. W2 appreciated farmers' ability to learn and adapt, but wasn't sure how much they are able to challenge assumptions. W1 asserted that "*people have to want to do that*" – i.e. think deeply – and that opportunities for this need to be provided. Instead "*we are so caught up with all these things we need to do ... there just isn't time for this gathering and thinking.*"

On the other hand, another source of hope for W1 is that "*people in the organisation are out and about more and talking to people more*." This was associated with a reduction in "*silo thinking*" and, as a result, W1 suggested that Council now had the capacity to more effectively draw on multiple knowledges, another transformability factor. W1 believed that this outcome was "*a direct result of the project*." Also, while all interviewees agreed that there was no real capacity for adaptive governance, W1 noted that the Council is "*starting to get the idea that there are people out there who can help us*" – for example, "*we are starting to explore the possibility of projects with CMA*."

3.4. Questions and learnings arising from the Wakool experiment

The implications for future research of the key messages identified above require further analysis. Some initial questions and learnings include the following.

1. <u>A question of scale</u>: The Wakool Shire Council may have been the wrong scale for effective community engagement. All communities comprise diversity, but the communities of Wakool Shire Council were disparate and did not have a strongly shared common identity. Some identified more closely with Barham, others with Moulamein, and a further set with Tooleybuc and Swan Hill on the Victorian side of the state border. This issue of scale has been further taken up by Murray CMA as it seeks to engage communities across its regional area in the review of its strategic plan (as discussed in section 4 below). Engaging communities that have a level of cohesion or shared identity often requires working at a finer landscape or even district scale. This does not preclude engagement strategies at broader scales. However, if communities are engaged at a broader scale, this may require concerted effort to include the range of place-based communities therein, perhaps by organising a number of smaller face to face meetings. When Murray CMA sought to engage the communities in the western end of its catchment, an area that covers parts of the Wakool Shire area, it referred to that area as the Western Murray social-ecological system, and held a number of separate meetings to seek community input.

2. <u>Getting over the state of denial</u>: While there are a number of contextual factors that reduced Wakool community interest in the prospect of transformation (as discussed above), an important learning reinforced to us is that you can't force people to challenge their assumptions about the need for significant change, they have to be able to reach that point on their own. When faced with individuals who are in a state of denial about the degree of change needed to progress towards a more sustainable future, the best outsiders can do is provide opportunities for people to discuss their situation in a way that enables deeper thinking.

3. <u>Broad leadership support</u>: Another learning reinforced is to ensure you have the leadership on side. It is not enough to just have one or two leaders on side. Those leaders also need to bring a majority of the governing body with them as well. In Wakool Shire's case, this means the other councillors; in Murray CMA's case, it means the Board members. As explained in the next section, Murray CMA Board members regularly engaged in deep discussions, and were thus more open to being challenged, and more willing to become champions for the research project than was the case for Wakool Shire councillors. With broad leadership support, Murray CMA was in a better position to nurture staff keen to enhance their skills to apply resilience thinking and new approaches to community engagement.

4. <u>The challenge of putting adaptive governance into practice</u>: Finally, there is the question of what adaptive governance means, and how to translate that idea into practice. It is important not to let go of one of the major successes of the Wakool experiment, which was to have secured the attendance at the April 2011 workshop of such a broad range of participants. Adaptive governance in this context is facilitating opportunities for the right people to be connected with each other; that individual community members with aspirations can reach out to people for support.

4. An analysis of governance changes implemented at Murray CMA

4.1. Introduction

My primary purpose in the following section is to document an evolving narrative of organisational change involving Murray CMA. This documentation is at a point in time, June 2012, but the story continues to evolve. A secondary purpose is to offer an analysis of the character and significance of the changes that have been implemented. How did these changes come about; i.e. what were the driving factors? And what can other NRM organisations learn from these experiences?

Before explaining how the evidence for this narrative was developed, it is helpful to provide some background about the relationship between the research team and Murray CMA. From mid 2009 to mid 2012, Murray CMA had been a consistent investor in the *Transformation for Resilient Landscapes and Communities* project. The partnership that this investment has created gave the project a high level of credibility. The potential end users of the research were partners in a project that could become a window of opportunity for a "reflective transfer" of research outcomes (Schön & Rein, 1994). That is, Murray CMA's decision to invest could be interpreted as partly about taking a risk in some blue sky thinking that could potentially offer up some innovative strategies for Murray CMA to apply in its work. These reflective applications of ideas from the research partnership by Murray CMA could then become research outcomes. However, another more basic need was for Murray CMA staff to acquire practical skills from its investment in the project. This need became more overt in the aftermath of the disappointing outcome of the Wakool experiment, when it was realised that the transfer of skills had not taken place.

When reflecting on the overall partnership journey in June 2012, M4's analysis of the turbulent relationship began by stating how important it is to "*be clear up front about what you want*" from an investment "*especially if you are working with researchers.*" M4 continued by explaining that Murray CMA "*had multiple vested interests in the [Wakool] project ... there was the research component of it and there was us trying to grapple with this resilience concept that we need to get our head around ... We also thought that this project would help us with our CAP upgrade because we thought it would give us the wherewithal to use resilience as an engagement tool.*" When Murray CMA staff realised in mid 2011 that they had failed to get a satisfactory return on investment, M4 was charged with being the "*bad cop*" to present that view to the researchers:

> "*I remember being really devastated that through the research project Paul Ryan was visiting all of the other CMAs and doing resilience workshops with them and thinking 'What about us? Didn't we just give you $150,000 for this?' ... I think that there were a lot of things about the project that we didn't sit down and formulate*

at the beginning because we didn't all have a shared understanding of what we were aspiring to do through the project. It came from the researchers and it stayed with the researchers. … We then re-negotiated the contract … which helped us get some outcomes … [such as] Paul helping us with our foundational thinking. We are starting to get some tangibles from it … [While this] will have some influence on CAP2, we will be able to experiment over the next two years and it will probably be very influential for CAP3" (M4).

M4's comments also raise serious questions about the extent that the project had evolved as a participatory action research project. At this critical juncture, Murray CMA expressed frustration at not being able to influence the direction of the project. However, M4's comments also profoundly shook the research team, and a new contract was negotiated that was more strongly influenced by Murray CMA's needs. Much of the research team's subsequent interactions with Murray CMA were driven by their strategic planning agenda, but I was able to observe and document the changes that ensued as Murray CMA sought to deliver on that agenda.

The narrative documented below describes a profound organisational change. There are multiple drivers that have created the change, and it would be a gross mistake to assume that because this is a report of outcomes from the *Transformation for Resilient Landscapes and Communities* project, that these changes have come about solely because of the project, or even the partnership that developed through this project. It was therefore important that an analysis is undertaken of both the changes and the multiple drivers that gave rose to the changes.

4.2. Approaches used to document and analyse the evidence of change

As a research partner with Murray CMA, we have had the privilege of observing profound changes happening in the organisation. By late 2010, we had already documented some evidence of changes taking place in the organisation using a set of criteria for assessing adaptive governance. Drawing on reflections of Murray CMA staff interviewed in late 2010, and comparing that with baseline data compiled a year prior, interviewees recognised, for example, that their organisation had:

1. acquired an increased ability to engage in collective social processes that span boundaries across different knowledge cultures; and
2. a concomitant increase within the organisation for fostering and accommodating debate and dissent.

By the end of 2011, the research team recognised that the evolving story of profound organisational change needed to be documented as others might be able to learn from Murray CMA's experiences. To do this, it made sense to again rely primarily on the reflections of those who were participants in the organisational change story. These reflections were backed up with our own observations as participants and/or observers of a range of meetings related to our support for the CAP upgrade process that was a result of the re-negotiated contract with Murray CMA described in the introduction above. A list of the key meetings we attended and the extent of documentation undertaken of the meetings is listed in Table 1. The documentation primarily involved detailed observations I took during the meetings. On four occasions, these notes were provided to Murray CMA staff, who verified their authenticity as an acceptable summary of the event. I also documented my reflections of some of the events, sometimes as part of my notes, but also as a separate account

for the 22 March meeting. As I was unable to attend the meeting on 14-15 November, I documented Paul Ryan's recollections of that meeting while recording his recollections of the 25 January meeting.

	Table 1: List of Murray CMA meetings observed and documentation method used		
Date	**Meeting**	**Attendees**	**Documentation undertaken**
30 Sep 2011	1st CAP upgrade planning meeting at Berrigan	Michael Mitchell (MM) Paul Ryan (PR), Murray CMA CAP upgrade working group (WG) staff	MM notes typed up but not verified
5 Oct 2011	Meeting between Murray CMA & NRC in Albury	MM, NRC representative, MCMA Board members (3) and senior staff (4)	MM hand-written notes only
8 Nov 2011	CAP resilience workshop at Albury	MM, PR, MCMA Board members and senior staff	MM hand-written notes only
14-15 Nov 2011	CAP upgrade workshop	PR, MCMA Board members and staff	MM notes after talking to PR 25-01-12
25 Jan 2012	Murray CMA staff workshop at Cobram	MM, PR, all Murray CMA staff	MM notes typed up and verified; MM notes of PR reflections typed up
15-16 Feb 2012	CAP2 Committee (C2C) meeting 1	MM (1 day), PR (1.5 days), C2C members, Murray CMA CAP upgrade WG staff	MM notes typed up and verified (incorporated with notes of 22 Mar meeting)
22 Mar 2012	C2C meeting 2	MM, C2C members, WG staff	MM reflections; MM notes typed up and verified
9 May 2012	C2C meeting 3	MM, C2C members, WG staff	MM notes typed up and verified
23 May 2012	First CAP2 public forum, Albury	MM, C2C members (2), Murray CMA staff, members of the public	MM notes typed up but not verified

Murray CMA staff (e.g. in my interview with M4) have recorded their appreciation for my attendance at these meetings, and for the notes I was able to provide to them of my observations and reflections. This is partly because of the mutual gain. I am using the notes as a source of evidence to exemplify the changes taking place at Murray CMA. My report can then also be used by Murray CMA as an independent account of the extent that the organisation is adopting an adaptive planning process to its CAP upgrade. This account may be useful as part of the CAP2 approval and auditing process by NRC, but also as part of Murray CMA's commitment for improvement through critical reflection – learning by doing.

The 9 May 2012 meeting provided some good examples of the broader influence that Murray CMA is having on how NRM governance is evolving in NSW, and the respect the organisation has among key knowledge brokers. For example, in our reflections, we had documented "light bulb" moments we

had observed or heard about, there was clear evidence that community representatives appreciated that Murray CMA was doing something substantially different (i.e. appointing a community-based committee to oversee the CAP upgrade; acquiring in-house social research expertise), and, as a result of what Murray CMA was doing, and their learnings from that, I heard statements about Murray CMA's perceived increased influence on what was happening for NRM more broadly in NSW.

Ten interviews were conducted between 6 and 15 June, as follows:

- 5 Murray CMA staff and 3 Murray CMA Board members (2 of whom also sat on the community-based CAP2 committee)
  (designated M1 to M8 in this report to retain their anonymity)
- 2 community-based CAP2 committee members (designated C1 & C2)

I also had the opportunity to briefly interview a representative from the NRC on 31 May 2012, who, for probity reasons, could not comment specifically about Murray CMA. We instead discussed the concept of transformation and transformability, and how this might relate to CAP development approaches being recommended by the NRC. I have not quoted from this interview in this report.

Murray CMA sought additional benefit from my conducting the interviews at this time by asking that my notes be used as part of "*a semi planned review of our progress.*" That is, the notes could be used "*to help refine our process*" and the reflections be written up "*into our project plan as part of adaptive planning*" (e-mail from Murray CMA CAP Upgrade Project Director, 26 May 2012). For this reason I incorporated some additional specific questions to see if interviewees involved in the CAP upgrade could identify any evidence of adaptive planning, and critically reflect on the process towards offering suggestions for improvement. To facilitate this, I have included a separate section in this report that is specifically focused on the CAP upgrade process.

My analysis of the interviews has therefore focused on identifying key statements that offer perspectives on (1) overall changes at Murray CMA and what has driven them; and (2) the CAP upgrade process as an adaptive planning process and how it can be improved. Due to time constraints, the statements and perspectives I present here are more ad hoc than comprehensive. They are driven by the key overall highlights identified from each interview.

4.3. Interviewee reflections on changes involving Murray CMA

During the first few interviews, it became apparent that my overall approach to capturing interviewee reflections would need to shift from our original research purpose of identifying whether changes being instigated by Murray CMA comprised evidence of transformability being built and/or a transformation in organisational thinking, processes and/or structure (as further explained in section 4.3.6 below). With some interviewees, I was able to discuss whether the changes at Murray CMA were so profound that they could be described as transformational. For the most part, however, my focus was to document the changes and seek interviewee reflections on what other NRM organisations could learn from their experiences.

- ### **4.3.1. Applying resilience thinking changed the organisation**

I began each interview by asking interviewees what they thought were the most profound overall changes that Murray CMA had made over the last three years. The General Manager of Murray

CMA's opening statement provides the context for the changes identified. These comments also help to establish one view on the link between theory and practice in the Murray CMA context:

> *"Firstly I'd like to acknowledge that there have been some profound changes, and to a very large extent they've originated through the contacts with the researchers in this project who have introduced me, my staff and the board to a range of concepts that were at first unfamiliar and quite frightening. It took a period of time for us to become familiar with the terminology. It took a longer period of time for us to become familiar and comfortable with the meaning behind the terminology, and it took an even longer period of time – and we're still working on it – to work out how to apply the theory into practice, and how to communicate the concepts in ways to community stakeholders that will potentially fast-track their learning process as well"* (Murray CMA General Manager).

While I would normally hide the identity of my interviewees, in this case it is important to attribute these comments to the General Manager. A consistent theme across all interviews was the key role that he and the Chair of the Murray CMA Board have played in driving the changes detailed below. For example, one instant answer to what had driven the changes was: "*the general manager and his deep knowledge and commitment to resilience thinking and his determination to make sure that everybody's capacity was built up to deal with it ... and the board backing that every step of the way*" (M3). A key part of the narrative is that it has involved the internalisation of a set of ideas, leading to a snowballing change of awareness across the organisation, and a corresponding change in organisational culture and practice. M3 described this as building "*a common purpose*", explaining that because the staff and Board had gone through the learning process together, the staff were able to "*see more clearly the logical strategy behind some of the decisions*" made by the Board. One of the C2C members I interviewed highlighted this change as being a shift by staff away from "*silo*" management towards one that showed they were embracing systems thinking and the need to consider "*all the elements at the same time*" (C2). The other C2C member articulated the change in thinking as a move "*from thematic strategic policies on a broad base across the catchment into localised resilience thinking programs*" – i.e. one that can be more in tune with "*the local scene*", while appreciating how this is fits into "*the wider scene*" (C1).

As a social scientist that has recently started to embrace resilience thinking, I found it interesting that most Murray CMA interviewees linked resilience thinking with an increased awareness of the importance of integrating the social dimension of NRM into their work:

> *"One of the fundamental changes that has happened to our organisation is a greater understanding that we need to engage with the community, to build social and human capacity in key areas, that natural resource management isn't just about managing bio-physical assets, it's fundamentally about building capacity and enabling people to do that, and that the Murray CMA as an organisation can't obviously do it by itself, so we need to develop a whole raft of partnerships in order to build resilience and improve the sustainability of natural resources in the Murray catchment"* (M2, explaining how the application of resilience thinking had changed the organisation).

One of the key strategies that Murray CMA has been able to achieve more successfully than the research team is the translation of theoretical ideas in language that can be more easily communicated. For example, M2 explains that instead of referring to the "*R word*" (resilience), and the need to build resilience, they instead referred to an ability to cope with change. M2 continued:

> "*Adaptive governance is also a term that we've tried to introduce. It's a harder one for communities to understand. We've been selling adaptive management to communities by saying it's essentially managing for change. And similarly adaptive governance is governing for change. And when they look at it in those contexts it's a bit easier for them to understand – i.e. adaptive governance is all about how decisions are made, whereas adaptive management is about operationalising those decisions.*" (M2).

M4 tracked this journey from an initial "*dabbling*" with "*this notion of resilience and all of its complexity,*" which at the time "*felt like it made sense*" more than it actually made sense, before continuing by explaining that:

> "*There was something about it that seemed logical and so we were interested in it but we didn't apply it. Now, three years later we have been exploring what it means for our business and through the CAP upgrade process a few things have come about that has allowed us to better grasp resilience thinking. ... To me, our involvement in resilience thinking, and actually acknowledging the role that people play, and therefore the role we play in natural resource management, has fundamentally shifted. We now have a social scientist on board. We have a socio-economics project officer. We have a team of people that are including social NRM into our business. Obviously, you can't have had any of that without our GM embracing it and he cottoned on to it – and he is always going to be five steps ahead of us. He cottoned on to it and saw the value of it ... that is probably where the monumental changes really came from – we now do social NRM as well as biophysical NRM*" (M4).

This focus on social NRM was also identified by M1 as the most profound change to the organisation:

> "*I think we are starting to understand what our business really should be about, and that's about connecting community and place – an emphasis on people, connecting them into the landscape and delivering opportunities for people to function sustainably within their landscape ... to actually manage the human element of everything that we do – putting people into the equation*" (M1).

M2 also linked this shift with a need to re-emphasise the social and economic dimensions of the triple bottom line, especially given that one of the criteria that the NRC use for its audit standards refers to the pursuit of economic sustainability and social wellbeing:

> "*The fundamental shift in our organisation is an understanding and acceptance that natural resource management is about having profitable agricultural systems, it is about having social acceptability as well as having ecological sustainability –*

so the three pillars. Previously we just focused on the environmental or bio-physical component of natural resource management. We now recognise that unless farmers can afford the conservation works, they're unlikely to do it. Some things aren't socially acceptable, and there needs to be a period of capacity building to raise awareness, build skills and knowledge, change attitudes and change practices before things are more generally accepted by the community. And unless you got those first two things right, you're not really going to hit the third one either" (M2).

As a consequence, it is not surprising that C2 connected the shift towards systems thinking at Murray CMA with an appreciation that improving the environment requires landholder engagement. As an outsider, C2 commented that Murray CMA staff are "*starting to believe that we've got to take all of the land managers with us – in fact we might even have to put the land managers up front, and find out exactly how they see things*" (C2). M6 also observed that one of the major successes of the community engagement process being conducted at the time was that "*we're getting information from production focused people whereas before we would have only got information from people who would have been environmentally engaged*" – and that this was providing the Murray CMA with a whole range of additional NRM issues and perspectives to consider in its strategic planning.

M6 also linked resilience thinking to the promotion of "*a healthy work life balance and not working excessive hours*" – explaining that resilience thinking is about "*putting people first.*" The message from the top has been that "*we'll never get everything done*" and that it's "*very important for people to manage their passion.*" Changing the world for the better does not necessarily have to mean "*slogging your guts out*" at work. Activists "*can just as importantly influence future outcomes by being a good role model at home.*" Practically, this means that when those at the top of Murray CMA increasingly devolve responsibilities to those below (a change that is described further below), "*they're relying on us to push back to make sure we find the middle ground – when it's pushing too hard we have to push back*" (M6).

Devolution became a strong theme across all interviews. M2 in particular saw the organisation's commitment to devolution as evolving out of an appreciation for resilience thinking, and the importance of "*building capacity and agency across the catchment*" (M2). The two practical efforts to achieve this were: (1) to devolve responsibility and build partnerships with capable local community-based organisations; and (2) to devolve responsibility for the CAP upgrade to a community-based committee. In addition to this, a third change was a significant restructure of the organisation, which also entailed devolving responsibilities to staff. These three changes are described below.

- **4.3.2. Devolution 1 – Partnerships and networks**

In late 2010, Murray CMA's General Manager gave a presentation to the research team that showed some strategies for how the organisation was applying resilience thinking. This was based on a presentation he had provided to the Murray CMA Board. As we have noted in previous reports, this was a turning point for the research relationship. We were seeing the fruits of a "reflective transfer" (Schön & Rein, 1994) of resilience concepts introduced by researchers being advanced through the process of Murray CMA putting the ideas into practice. One strategy presented involved building general resilience by spreading human and social capacity across a range of organisations, and

nurturing an independent network among these organisations. At the time, this was couched in the possibility of allowing agricultural farm-scale innovations developed in one part of the catchment to spread to other parts of the catchment, without having to rely on Murray CMA as a network hub. Instead Murray CMA was supporting the development of a landcare and producers' group network, involving the Holbrook Landcare Group, the Corowa Landcare Group, the Ricegrowers' Association and the Western Murray Land Improvement Group.

Much has happened since then. Most importantly, the negotiations to establish partnership arrangements between Murray CMA and these four organisations have led to increased mutual trust and respect, as well an exchange of power, according to M2. On one hand, Murray CMA's transfer of power has involved devolving 7% of its funds to these four groups, and the target is for that to reach 10%. On the other hand, the groups are sharing their power with Murray CMA, i.e. the groups' connections with farmers in the community. The partnership involves the pooling of funds to employ four part-time positions across the catchment. Initially, Holbrook Landcare Group had sought government funds to appoint a regional landcare coordinator position. Rather than compete with Holbrook Landcare over who would manage this funding arrangement, Murray CMA chose to support Holbrook Landcare's bid. This approach was in contrast to prior practice where all landcare funds were channelled through Murray CMA as the regional NRM agency, culminating in some frosty relationships which are now being mended. The funding that had been made available through this bid was equivalent to one full-time equivalent position. Murray CMA decided to match the funds from its own sources, enabling the four organisations to employ one part-time person each.

The arrangement meant that the organisations would have greater ownership, and could appoint staff directly. With this freedom, the organisations could appoint locals with existing community connections, rather than having to follow a competitive process required for Murray CMA positions, which might have meant that those appointed ended up being young graduates with no connections to the community. The decision was also an outcome of a lessons learnt exercise where Murray CMA shared its learning that one person based in Albury could not service the entire catchment and it would be better to have multiple part-time appointees located spatially across the catchment. More broadly, Murray CMA's strategy was that with very limited funds, the most effective way to achieve on-ground work was to work together with partners on the ground. The approach was explicitly about capacity building, as M2 explains: "*the CMA had reviewed its business model, how we engage with the catchment community, and how we were there now to support local actors to build capacity where it was absent, and in effect, we were trying to make ourselves redundant in the longer term.*"

- ### 4.3.3. Devolution 2 – Community-based CAP2 Committee

During my observations, it was apparent that Murray CMA could be singled out from other NSW-based regional NRM bodies for its innovative approach to its review of the Catchment Action Plan (CAP). At the first public forum as part of Murray CMA's community engagement process, a proud announcement was made that Murray CMA is the only regional NRM organisation to have appointed a community-based committee to oversee the CAP upgrade process. This was frequently described from those on the inside and observers from the outside as a very risky proposition. Murray CMA's counter mantra is that high risk might lead to high rewards (M2; M6).

The strategic decision to establish a new, separately created community-based committee to direct the CAP upgrade process (which became known as the CAP2 Committee or C2C) had been initiated

by the Chair of the Murray CMA Board, as M1 elaborates: "*we deliberately devolved that function to the CAP upgrade community committee and we deliberately chose people from across the catchment who we thought could provide what we needed ... they are very connected to their community, and they are very highly respected and trusted and they also knew their business in their area of expertise*" (M1). The task of overseeing a major project like the CAP upgrade would have also placed a heavy burden on an already stretched Board, so this strategy allowed a broader cross-section of community members to play an active role. M2 added that a key reason for the bold move to establish an independent committee was related to the Board's frustration with the way the Murray Darling Basin Authority had released the draft Basin Plan. The Board was frustrated that the central agencies were not devolving responsibility to CMAs. From Murray CMA's experience, when you devolve responsibility, those who take on the responsibility perform much better, and the outcomes of the process are greatly enhanced because they have better local connections.

The Board's selection of community representatives to form the committee also showed a high level of political astuteness. Several interviewees indicated that the Board appreciated the importance of selecting representatives who had been critical of Murray CMA in the past, not just advocates. Including critics on the C2C heightened the risk, but the risks have paid off for Murray CMA. M2 explained that part of the prior criticisms of Murray CMA was that the organisation was perceived as not being genuine in its community engagement. For such critics to become Murray CMA advocates, it was necessary to demonstrate to them that the organisation had changed, which is what happened. The former critics are now seeing "*that we are genuine in engaging the community, that we're no longer just concerned about the bio-physical outcomes, that we're taking a much greater, if not focal interest on the human and social capital*" (M2). Some of these critics were also able to directly observe how Murray CMA was devolving responsibility to capable local groups, as both M2 and M5 described. M5 was able to refer to direct experiences of shared car journeys where former critics started to reveal how their opinions of the organisation were changing.

The two C2C members I interviewed both spoke highly of Murray CMA's efforts to genuinely engage the community, and landholders in particular. C1 contrasted the current "*high regard for community interaction*" with its earliest efforts when it had established district advisory committees. In C1's view, the CMA at that time had "*totally disregarded*" input from these advisory committees, leading to community disillusionment and a "*very introspective attitude and thinking*" by Murray CMA. The degree to which the CMA was now committed to "*taking notice of the community*" had led to a "*transformation*" in "*the integrity of the CMA from the community's point of view*" (C1). C2 emphasised that better outcomes are achieved when you get closer to your subject – in this case, landholders – noting that "*before you interact with them, you have to interact with them to see how you're going to interact with them*" (C2). For C2, it reiterated that good community consultations are hard, slow and time consuming.

M2 also proffered that the CAP upgrade process was all about embedding resilience thinking and social learning into engaging the community in strategic and adaptive planning: "*The CAP2 will go some way towards looking at the drivers and determining whether there are thresholds but because it's such a new concept, and we haven't in the past tested many assumptions, it's really going to take CAP3 or CAP4 before resilience thinking is fully embedded into NRM in the Murray catchment*" (M2). M2 adds that the CAP2 Committee has already agreed to move away from a theme-based CAP to

one focused around a set of social-ecological systems, and that every activity has involved a social learning process:

> "*The social learning component [of the research project] has essentially helped us to design the engagement plan for CAP2, which is all about social learning. But the social learning is all based around resilience thinking also, because the planning unit or the focal scale is at an SES scale. So both of the major components of the research project have been embedded into the CAP2 design ... By social learning I mean we're getting a full and frank exchange from the community on what they see as the values that they cherish, the threats and the opportunities, their vision for the future, and they get to hear the views of other people around the table at the same time*" (M2).

- ### 4.3.4. Devolution 3 – Organisational restructuring

M6's response to my opening question about the most profound change at Murray CMA was as follows:

> "*The most profound change I've noticed is in our governance – in the way we govern internally ... and the ripple effects going beyond that... There is a clear differentiation of our roles internally, and ... we've deliberately blurred the lines of governance. Traditionally you would have a Board at a very high strategic level and the organisation doing the operationalising of things. We've merged those together a little bit and created a safe environment where they are coming together – so the Board is stepping down slightly into the operational area, and the senior staff and executive are stepping up into that strategic area*" (M6).

As M6 notes, what makes this blurring of the lines between Board and staff significant is its ripple effects. M1 and M6 highlight the extent that this, together with the introduction of a project management framework discussed below, has led to a greater focus on strategic planning. This focus on planning now occurs both prior to establishing project activity, as well as throughout the life of the projects through an adaptive management process of documenting lessons learned, and allowing that to modify project delivery.

M6 used the establishment of the C2C to exemplify the extent that the organisation had set in place this "*thinking at the planning phase before we jump into the doing*" (M6). Prior to establishing the C2C, the organisation invested considerable time into articulating its roles and responsibilities, which were laid out in a Terms of Reference "*to ensure that it was clearly documented what would be happening and why*" (M6). This was in contrast to past practice where Murray CMA tended to "*jump straight into the doing, with a tiny bit of planning beforehand*" (M6). Taking me back to what Murray CMA was like four years ago, M1 explained that:

> "*It was really about just delivering projects ... we had fairly significant budgets back then, and it was still about 'there's buckets of money, we've got to get projects out the door' ... So there was very little prioritisation. You put in an application and if you were number one on the list you got funded*" (M1).

When it came to the CAP upgrade, which was all about Murray CMA focusing on reviewing its overarching strategic plan, the GM decided to overhaul the organisational structure so as "*to free up some staff capacity to focus on the planning while also acknowledging that we have to do our day-to-day operations*" (M6). Murray CMA's organisation structure was previously focused around its thematic silos of land, biodiversity, water and community. In early 2011, the entire organisation was reorganised into two main sections: one that could focus on maintaining Murray CMA's day-to-day operations; the other focusing on the CAP upgrade.

When I asked M2 to explain the reasons for the organisational restructure, the suggestion was made that it was "*obviously another example of adaptive governance.*" M2 continued:

> "*Recognising the resources and the commitment that would be required to upgrade the CAP, and the need to provide general resources to the CAP2 committee members which essentially functions as a second Board, a significant realignment of the organisation took place so that staff members that are in that one section fully appreciate and understood that their first priority was to serve the needs of the CAP2 Committee, and all of those staff members report to the project director. So the first call on their time is for CAP2*" (M2).

As M6 explains, this restructuring took place in the context of a top-level commitment to devolve responsibilities down the organisational chain, which was about "*creating a culture of empowerment … getting staff to make decisions.*" M6 then exemplifies this by referring to budgets, which *"used to be done by the business manager, now they're done by the catchment coordinators."* M6 also explained that the GM had created a project management framework so that there were clear procedures in place, not only for developing projects but also for planning, monitoring, evaluation, approvals, and everything else involved with projects. This framework ensures that all project governance arrangements are now fully documented, with systems in place so that accountability and responsibility can be devolved down the line. Under "*the previous regime*" this had all been *"very much contained – it was held within very tightly and closely – micromanaged to a certain extent*" and notes that "*the new regime clearly had a lot more trust in staff and were more than happy to devolve that"* (M6). Staff also valued the new arrangement, and had the comfort of knowing they had the full support of those above – *"having those things concurrently meant that you had a feeling that we were all in this together and that you had lots of other people around to support you in going through the journey"* (M6).

As noted above, another significant aspect to the cultural change has been Murray CMA's efforts to build its social NRM capacity, and this is also reflected in the organisational restructure. M6 described this as a cultural change, explaining that up until recently Murray CMA was an organisation of bio-physical practitioners. Staff had been recruited for their technical ability, whereas now the emphasis in recruitment has shifted to "*character and culture*" – meaning that "*we're recruiting for people who are happy to work in a team environment, who can interact well with people, who can form relationships*" (M6). In addition, as noted in a quote by M4 above, Murray CMA has created new positions focused on social dimensions – a Socio-Economics Project Officer in early 2011 and a higher level Social NRM Catchment Officer in early 2012.

I was able to interview the newly appointed Social NRM Catchment Officer, and it was interesting to document the officer's reflections after five months in that position. The tasks for the position

during that period had focused heavily on the CAP upgrade in terms of community engagement strategies, monitoring and evaluation. However, in addition to this, the officer described a kind of "light bulb" moment, when she realised that a key part of her role had been to help manage an organisational change; that is, helping to manage a cultural shift in the organisation away from linear thinking and towards systems thinking. This seemed to be an unintended outcome of her appointment. The officer was able to bring expertise to support the shift in thinking and culture, and found that a lot of her time was taken up discussing the shift in thinking with other staff and providing guidance on how to put that new thinking into practice.

- ### 4.3.5. What were the drivers that created these new governance arrangements?

While there were some additional contextual factors mentioned, the consistent answer provided by interviews concerning what had driven the changes was the new GM and Chair of the Board. It was important for me to unravel what it is about these two people, and what they did, that provided such a powerful impetus for positive change. For the most part, I had to frame my question in terms of what other NRM organisations could learn from the way these two leaders had inspired change.

Before I describe the roles that the leadership played in driving change, it is helpful to document the contextual factors. One significant factor highlighted by M1 and M2 was the 70% reduction in funding following the conclusion of the Commonwealth Government's *Natural Heritage Trust* funding arrangements. Paradoxically, it was this cut in funding that led Murray CMA's decision to devolve a proportion of its remaining funds to partner organisations, as explained in section 3.4.2. Another factor widely cited by the interviewees was the "*fairly damning"* audit by NRC of Murray CMA in 2008 (M6), when Murray CMA was rated at the bottom of the list according to the NRC's standards for quality NRM. M6 clarified that Murray CMA scored badly on organisational culture; i.e. "*the staff were disenfranchised, there was no level of trust between the staff and the Board, we had process issues ... there was no sound financial tracking, project management was lacking in some instances*" (M6). M1 attributed the NRC auditing process as a major factor driving improvement across all CMAs in NSW:

> *"I think we've all matured in the way we operate and deliver. Most of that is due to the NRC auditing process and the focus on performance, which is a great thing we realise now. We used to think it was a terrible thing but we realise that it's the most important thing that we do and it actually separates us from other agencies and organisations in lots of respects"* (M1).

In 2010, Murray CMA voluntarily requested the NRC to conduct a second audit, and the result was a complete turnaround. Murray CMA is now considered one of the better performing CMAs in NSW, according to the 2010 audit.

The 2008 audit coincided with a change of leadership at Murray CMA, including a change of most members on the Board. One of the initial changes that the Chair implemented was that every alternate monthly Board meeting was "*what we call a strategic meeting, where the senior staff and sometimes other staff as needs be and the board get together, and the meeting is more about discussing ideas and approaches and major things like funding*" (M1). This separated the formal business-like Board meetings from those that invited interaction and discussion at a strategic level.

For us as researchers, finding out about these regular strategic meetings was enlightening. Organisational learning theorists emphasise the importance of establishing a safe space where people from across an organisation can interact and learn together. It is these spaces that enable organisations to learn at profound levels, potentially rethinking assumptions, and thus enabling change away from constraining organisational practices. The idea behind these meetings is also a practical suggestion that other NRM agencies could adopt. It is at these meetings that the GM presented his initial ideas about how to apply resilience thinking in late 2010, and where in July 2011, the Board decided to adopt a planning by doing approach in place of a more linear approach.

Some of the practical aspects of the GM's leadership style are provided above in M6's comments about how a culture of empowerment was promoted. In addition to these, another leadership style characteristic mentioned was that it entailed "*a very much more open line of communication – a door always open policy for anyone and everyone at any time*" (M6).

M4 provides some additional description to characterise the leadership style of the new GM, and the practical changes introduced:

> "*It is through the GM's leadership that ... we started to understand the importance of corporate culture and what is it that we aspired to and we learnt to be leaders in ourselves. We got some leadership coaching and things like that and again that part of that transformation for us as a business isn't just about the service that we provide to the community, it is the service that we provide to each other. ... It feels like the GM is trying to make our business more professional, that we are not just a public service, that we are innovative and that we do quality work and that where possible we contribute to setting a precedent if we can. And yes that is a massive transformation ... within the strategic side of the planning and operations I think we have undergone a significant change and it will be interesting to see where we'll be when we operationalise resilience thinking*" (M4).

- ### 4.3.6. Can these organisational changes be described as transformational?

From M4's quote above, one answer to whether the organisational changes involving Murray CMA could be described as being transformational is yes. However, it is helpful for me to take a step back because transformation was not a concept of immediate interest to most if not all interviewees.

This report is headed "To what extent has transformability been built?" Our research interest in this concept and in transformative action was made clear to all interviewees, including in my opening remarks as the interviews commenced. However, at a very early stage, it became clear to me that the notion of transformation was not high on Murray CMA's agenda, partly because it did not gel much with their stakeholder community: "*from my experience, people don't particularly like the idea of transformation*" (M2). The organisation was focused mostly on building adaptive capacity. My original plan had been to explore the extent that transformability had been built by drawing on Griffith *et al.*'s (forthcoming) transformability factors. After the second interview, I abandoned this strategy. It made better sense to consider using these factors when analysing the interviews and/or only mention them in passing. However, some of my interviewees were able to indulge my academic

interest in the concept of transformation in terms of discussing whether the changes that have occurred at Murray CMA could be described as transformational.

M6's comments were interesting in this regard, although the most interesting comments were made while chatting before and after the recorded interview. We were chatting about the significance of the change and whether it could be considered transformational – something different that other CMAs could learn from. M6 saw the changes as a maturing more than something distinctly new. It was like they had been toddlers before but were now teenagers. The teenage analogy was also used by M1, but in this case it was used as a description for NSW CMAs four years ago, whereas since then "*we've all matured*" as noted in the section above. In my discussions with M6, however, we decided we could conclude that there had been a transformation if we referred to the governance and culture of the organisation. That is, Murray CMA as an organisation is a system; decision making is a system; and these systems have been transformed. The Board and the staff are working together in entirely different ways, and the way they relate to each other has been transformed. As systems they are completely different, so Murray CMA has transformed from one system to another. On reflection, this change is not necessarily one where you can identify a moment where there was a regime shift – a tipping point – a threshold crossed – or even an epiphany moment. This reinforces a view that the concepts of thresholds may not apply so well to social systems.

It is also interesting to note here that hardly any of my interviews could recount a "light bulb" moment, which was one of the questions I posed to all interviewees. The interviewees' difficulty in recalling light bulb moments was not because there were none; it was more likely that there had been too many: "*I have light bulb moments, but I can't recall them. I mean I can't recall them to tell you now. No, I mean a lot of what I do is just really about continual improvement, I just like to do things well*" (M1). For the Murray CMA interviewees, it seemed as though there had been a transformation in their thinking, but it was difficult to pinpoint the moments when their thinking had changed. Some were able to pinpoint light bulb moments in others. For example, one interviewee referred to an occasion where one of the C2C members used the term to describe the impact of Paul Ryan's presentation on resilience at the first C2C meeting.

4.4. A review of the CAP upgrade process for Murray CMA

This section was originally intended to be provided to Murray CMA as a stand-alone report to meet a specific request from the Murray CMA CAP Upgrade Project Director. The request was that my reflections from the interviews be used "*to help refine our process*" and written up "*into our project plan as part of adaptive planning*" (e-mail from Murray CMA CAP Upgrade Project Director, 26 May 2012). To this end I included some or all of the following questions as part of my interviews:

1. What would you see as being the most significant learnings for you in relation to your involvement in the CAP upgrade?
2. What would you see as being the most significant learnings or outcomes for Murray CMA as a result of its engagement with the CAP2 Committee?
3. Can you identify evidence of adaptive planning in action?
4. How would you evaluate the process used for community input into CAP2 – any ideas on how to do this more effectively next time?
5. Do you have any practical suggestions on how the CAP upgrade process could be improved?

An analysis of responses to the questions could provide a service to help Murray CMA and the CAP2 Committee (C2C) review and refine its process. Several interviewees expressed a lot of interest in seeing the outcomes of my analysis (especially C1 and C2). However, I don't believe that my analysis below will offer anything new to them, and the sections above contains additional analysis that is likely to be just as useful; if not, more. So it makes sense to provide Murray CMA and the C2C with a copy of this report in its entirety.

The benefit of the following section might therefore serve as an independent commentary on the efforts by the CAP Upgrade team to implement an adaptive planning process that builds on resilience thinking and social learning principles. This could serve as useful evidence that can be appended to the CAP for NRC's auditing purposes. My reflections are unlikely to offer any new suggestions for improvement. Those mentioned are already being considered as part of the ongoing review of the CAP Upgrade process.

- 4.4.1. CAP2: Evidence of adaptive planning?

From the outset, I was curious to learn from my interviewees about how they perceived adaptive planning, and what evidence they could identify of putting that idea into practice. As a research team, we have been referring to "planning-by-doing" but I chose to use the term "adaptive planning" as this was more commonly used by Murray CMA. For the most part, interviewees were comfortable with the meaning of adaptive planning. Only C1 expressed reservations, noting that "*I'd like to see some actual examples brought to the committee of what adaptive planning and adaptive management actually is, especially in the context of SESs and resilience thinking.*" C1 was better able to imagine an adaptive planning process eventuate as part of monitoring and assessment, and had grand visions for how this could involve ongoing community engagement.

Murray CMA staff and board members involved in the CAP Upgrade process were immediately able to identify evidence of adaptive planning. M4 referred to the "*lessons learnt*" process that is part of everything that Murray CMA now does: "*once we have attempted any kind of activity, we reflect on that and have a formal lessons learnt and it might only be a ten minute process but ... it is part of our dialogue now that we capture things that have worked well and haven't worked well*" (M4). M3's response was to laugh, declaring that "*the whole process is an adaptive plan*", as did M6 who joked that "*it happens every day of the week".* M6 then continued in the same vein as M4 by explaining that *"we have a clear project planning process that we try to stick to and we review that regularly, and as a result of that we change things*" (M6). M8 also laughed, asking whether I'd like to be referred to all the draft documents Murray CMA has developed. M8 went on to explain that CAP Upgrade project staff had provided drafts to the C2C, who then provided feedback, and changes were made. This view is reflected in comments by C2 who credited Murray CMA for their "*real intent to get it right ... they took on our advice and adapted*" (C2).

The changes made that C2 wanted to highlight were (1) dropping the "*humungous survey*" from the community engagement workshop process; (2) changing the workshop design "*so you don't start from ground zero every time*"; and (3) shifting from a focus on advertising to get stakeholders to attend public workshops towards a focus on the "*targeted workshops*" where selected people were specifically invited by C2C members to participate. It is this last change that represented "*a crossing of the Rubicon*" for C2. Having C2C members issue invitations ensured greater attendance – with "*perhaps up to 250 or 300 people attending in all*", which in turn offered greater opportunity for

interaction (C2). C1 also explained that the targeted workshops enabled the C2C members to ensure that a wider range of stakeholders came along, including those who had become disillusioned with the Murray CMA in the past, whereas "*those who come to the public meetings are all 'disciples'*" (C1). This view accords with a "*hand on my heart*" statement from M6 that "*if we had been doing the ringing around, there is no way we would have that range of people turning up, and participating in the way they did ... we're getting information from production-focused people whereas before we would have only got information from people who would have been environmentally engaged*" (M6; a view echoed by M8).

It was feedback on the workshop process and survey design where some C2C members' criticisms had been most challenging for the staff responsible. C2 openly acknowledged this, offering this advice (not to the Murray CMA but to other CMAs) "*you're only doing your best work when you're challenged a bit ... if you want to do the best you can, then in everything you've got to challenge – you've got to challenge yourself, challenge the system, challenge your staff*" (C2). The end design for the workshops – from the perspective of all interviewees – was very positive. M3 highlighted how participants felt like they were actually providing input, rather than just being given information as was the case with almost all the other consultation processes they had been involved. In contrast with the Wakool community engagement workshop, M3 also felt that the process was "*very structured and specific*" and exemplified this with how the facilitators elicited what participants valued, and then asking why they valued those things. For example, one participant said they valued native grasses, but this was not just because of their biodiversity value as might have been an immediate assumption, but rather it was because of "*their productive capacity*" which was important to recognise (M3). Although C2"s recommendation to avoiding starting from ground zero was aimed at allowing "*enough time for discussion, especially on the solutions end which is where landholders like to be,*" it was often the case (as happened in the Albury workshop I attended as well as the workshop M3 had attended) that discussion on solutions was far too rushed.

Several interviewees also referred to changes to the management of increased workloads arising from the CAP Upgrade as an example of adaptive planning. The increase in workload affecting C2C members required Murray CMA to review the sitting fee that C2C members received. The increase in workload for staff involved in the CAP upgrade resulted in a further realignment of staff responsibilities.

Most importantly, all Murray CMA interviewees explained how the work involved in CAP 2 was part of a longer term journey, with many of the more profound changes only becoming evident when working on CAP3, 4 or 5. From my own observations, I was able to observe how this basic idea that Murray CMA didn't need to get its CAP perfect this time spread from statements made by the General Manager to staff and then to the C2C at the first C2C meeting, and ending up as statements made by staff at community engagement workshops (i.e. at the workshop I observed in Albury). Appreciating that a CAP document is merely the best expression of a plan at a particular point in time is a clear expression of adaptive planning. In practical terms, it often feels like muddling your way through, doing the best you can at the time, and always willing to learn to improve, and ensuring that opportunities are provided for that reflective learning to take place. An external government representative present at the last C2C meeting I observed also credited Murray CMA for its approach, suggesting it was "*exemplary*" – i.e. that Murray CMA had clearly recognised that the CAP is just a document written at a moment in time, and that, as such, the document states what

has been done, and what still needs to be done (from my notes of the C2C meeting in Tocumwal on 9 May 2012).

- 4.4.2. The potential for a whole of community and whole of government CAP

A significant conceptual and practical challenge for CMAs in NSW is how they can develop their Catchment Action Plans to meet the contemporary mantra of a "whole of community" and "whole of government" strategic plan. At the C2C meeting in Tocumwal mentioned above, the same external government representative also credited Murray CMA for its approach to developing the CAP as a whole of government document. In this case, the credit was for the appropriately targeted communication with government officials. It is also apparent from what I have observed that Murray CMA is developing good connections with officials of government agencies operating at the regional scale. The CAP Upgrade Committee had a vision for how the CAP could become a regional NRM strategic plan that other government agencies in the region would use, but the actual negotiation and articulation of this had not yet been undertaken when I was conducting the research. The focus at that time was engaging the community so that the CAP could also become a whole of community plan.

At the C2C meeting in Tocumwal, soon after the above positive comments were provided, C2C members raised a question about a potential tension between the CAP as both a whole of government plan and a whole of community plan. How could the CAP be both "our" CAP as well as a CAP that needs to meet whole of government requirements? I had also raised this issue during my interview with M2. M2 had commented that the biggest risk for Murray CMA of devolving responsibility to the C2C was not securing buy-in and support from government agencies because the CAP2 is too focused "*on community aspirations, and human and social capital"* at the expense of government regulations related to bio-physical requirements, such as requirements to protect threatened species. To manage that risk, M2 suggested that Murray CMA's strategy is to have *"such a high level of community support and buy-in for CAP2 that when the agencies do kick back to the ministers and say that the plan doesn't meet all of our bio-physical requirements ... but they are going to build the capacity of organisations and communities to self-organise, we're hoping that the ministers will be able to weigh up the benefits of having community buy-in and ownership of the catchment planning process against having central agencies saying our statutory requirements haven't been fully met by the CAP."*

When I asked M2 how the CAP can then be both a "whole of government" and "whole of community" plan, M2 suggested that Murray CMA's approach is that the "whole of community" concept includes government agencies (as was the intention of the approach used for inviting participants to the Wakool community engagement workshop in April 2011). If "whole of government" is treated separately from "whole of community", then it is clear that there will be a huge gulf between local community values and those of government agencies. An example is the policy decision to establish national parks along the Murray River which clearly did not meet local community aspirations. The same is true for the Basin Plan, where the amount of water to be returned to the environment is opposed by most if not all irrigation communities. The only way to achieve "whole of government" and "whole of community" aspirations is for the CAP to be watered down to high level aspirations only. There is a risk then that the CAP will focus too heavily on

community aspirations, with the result that it won't get high level support from government agencies.

It will be interesting to see how Murray CMA's thinking on this issue evolves as the CAP2 process develops.

- 4.4.3. Suggestions to improve the CAP process

A couple of interviewees had no specific suggestions to offer regarding how to improve the CAP Upgrade process. M3's response was framed in terms of the process being one of constant change: "*I really don't have a template to fill in; it's going to evolve and develop itself ... [which is] good because it's sort of becoming clearer as you go through.*" M4 thought that it was a question that would be better suited for consideration at the end of 2012: "*at this stage no I don't think I would change anything ... we are only just starting to build up a bit of speed*."

Several interviews focused their responses on the issues at that point in time – mostly related to the community engagement strategy. M7 was concerned that the evaluation of the workshops used to engage the community had been designed in too much of a rush, and it would have been good to have obtained more feedback on the content associated with the workshops, not just the process used in the workshops (a concern that had also been raised by M3). That is, M7 thought the evaluation could have focused more on the plan – the process being used to design and develop CAP2 and its outcomes. C1 expressed a similar concern about the need to focus on the bigger picture, but the suggestion was around how that bigger picture process and outcome was communicated to participants involved in the workshops: "*I think there's a need in these [workshops] to give some indication of where the CMA is heading, and explain how it all comes together.*" M7 added that the explanations could have been applied with clearer relevance to each local area, and would have liked it if a summary had been prepared for each social-ecological system area.

M8 was interested in evaluating the outcomes of the targeted workshops (or focus groups) compared with the open invitation public workshops. There had been some discussion about conducting focus groups "*along the traditional meaning of the word for specific issues and to get more detail about some of the systems that we're working in.*" M8 wondered whether they might be better off focusing their efforts on working with the C2C and having a short series of focus groups rather than putting a lot of effort into public workshops. The value of the C2C meetings should not be discounted as an effective means for Murray CMA to engage the community. C2 noted that "*the big thing to improve*" related to these C2C meetings, and the need "*to improve the quality of the discussion around the table – the material has got to be with people long enough in advance.*" C2 acknowledged that this was already beginning to improve.

In terms of bigger picture improvements, there are probably two suggestions that stand out. Some interviews referred to Murray CMA's failure to effectively engage Indigenous communities in the CAP Upgrade process, as M6 elaborates:

> "*In terms of what we would do differently, our Indigenous engagement has not gone well ... our CAP2 committee process isn't well-suited as a venue to capture Indigenous values and engagement – it's a whitefellas' way of doing business, so*

> *it's tokenistic to expect that one Indigenous rep could provide feedback on Indigenous issues … it's better to go and approach them directly – so there's been a learning there already … We acknowledge we're very much on the back foot as far as Indigenous engagement goes … but in the future with CAP3 or CAP4 that engagement can be happening more effectively"* (M6).

The other issue was raised by C1, and refers more to a governance constraint concerning Murray CMA's mandate, and that of the C2C in turn. C1 noted that there are three aspects the C2C can't address under its terms of reference: compliance, funding and legislative changes. The CMA Act prohibits CMAs from raising rates or introducing a levy, which C1 felt strongly about as a positive way forward for NRM in the region. As a result, C1 commented on feeling *"a bit impotent that we can't address these things that are going to face us in the future."*

5. Conclusion

This report documents a consistent view among those actively involved in Murray CMA's strategic planning process that the organisation has undergone a substantial change over the last four years. Many of the changes relate to the building of adaptability, as highlighted in the section offering evidence of adaptive planning. Further analysis should explore the extent that changes at Murray CMA have also increased the organisation's transformability, drawing on the attributes being developed Griffith *et al.* (forthcoming).

I believe a good case could be made to describe the change that has occurred at Murray CMA as a transformation, especially if there is a focus on transformational learning and/or a transformation of organisational culture spearheaded by transformational leadership. However, it is not the kind of transformation where a tipping point could be identified. This is an interesting finding that deserves dissemination and further analysis. System transformation can occur through a process of evolutionary change that has no identifiable tipping point or threshold, particular when they involve systems that primarily involve social relations and feedbacks (such as Murray CMA). Such a finding could reinforce the view that a focus on threshold management in resilience practice may not be so easily applied to social systems.

It also might useful to undertake a comparison of the outcomes observed from changes that took place in Murray CMA with the outcomes of the Wakool experiment, where the pursuit of transformational change was rebuffed. In discussions, the *Transformation for Resilient Landscapes and Communities* research team had considered using the adaptive cycle heuristic to draw distinctions between the Murray CMA and Wakool Shire Council experiences. The case could be put that Murray CMA has experienced changes indicative of the backloop of the adaptive cycle over the last 4 years (i.e. phases of unravelling and renewal), whereas the Wakool Shire Council might be stuck in the conservation 'K' stage (perhaps it is a rigidity trap or a lock-in trap?). However, I have reservations about the application of the adaptive cycle heuristic in these contexts and its implications. I'm concerned about reinforcing a view that the only or best way to create positive, creative change or renewal is to push a social-ecological system through a period of crisis, with all the associated chaos and loss of resources that can result.

I am more intrigued by an analysis that focuses on organisational learning and the notion of "reflective transfer" (Schön & Rein, 1994). I think what we have uncovered is a reflective transfer of

ideas from a team of researchers to practitioners and back again. A strong theme that came out of the interview with M2 is that the researchers provided ideas, and these have fundamentally changed the organisation. But it is not the ideas per se that have changed the organisation. It is the process of putting those ideas into practice that has changed the organisation. It is from this "reflective transfer" of ideas that we have much to learn.

References

Bellamy, J. A. (2007). Adaptive governance: The challenge for regional natural resource management. In A. J. Brown & J. A. Bellamy (Eds.), *Federalism and regionalism in Australia: New approaches, new institutions?* (pp. 95-117). Canberra: ANU E Press.

Natural Resources Commission (2005). *Standard for quality natural resource management*. Sydney: NSW Natural Resources Commission.

Natural Resources Commission (2011). *Framework for assessing and recommending upgraded catchment action plans* (Document No. D10/0769). Sydney: Natural Resources Commission.

Griffith, R., Mitchell, M., Walkerden, G., Brown, V. A., & Walker, B. (2010). *Building a collaborative framework for transformative action in the Wakool Shire (Transformation for resilient landscapes and communities Technical Report 1)* (ILWS Report No. 61). Albury-Wodonga: Institute for Land, Water and Society, Charles Sturt University. Available from http://www.csu.edu.au/research/ilws/research/reports2010.htm.

Griffith, R., Ryan, P., Mitchell, M., Walkerden, G., Robinson, S., Brown, V. A., et al. (2011). *Transformation for Resilient Landscapes and Communities Project: Research-in-Progress: Year 2 Progress Report* (Unpublished report submitted to the Rural Industries Research and Development Corporation).

Griffith, R., Ryan, P., Mitchell, M., Walkerden, G., Walker, B., Brown, V. A., et al. (forthcoming). *Transformation for Resilient Landscapes and Communities Project Working Report No 3: A framework for building and assessing transformability*.

Murray-Darling Basin Authority (2010). *Guide to the proposed Basin Plan (Vol 1): Overview*. Canberra: Murray-Darling Basin Authority.

Schön, D. A., & Rein, M. (1994). *Frame reflection: Toward the resolution of intractable policy controversies*. New York: Basic Books.

Wentworth Group of Concerned Scientists (2003). *A new model for landscape conservation in NSW (Wentworth Group of Concerned Scientists report to Premier Carr)*. Sydney: WWF Australia. Retrieved September 22, 2012, from http://www.wentworthgroup.org/blueprints/a-new-model-for-landscape-conservation-in-nsw.