

Reflections on research into the OurRiver - Cooks River Sustainability Initiative

J.J. Bos* and R. R. Brown

Centre for Water Sensitive Cities, School of Geography and Environmental Science, Monash University, Building 11, VIC 3800 Australia

**Corresponding author, e-mail: annette.bos@monash.edu*

Abstract

Historical interaction between Marrickville City Council and Monash University resulted in a postgraduate research opportunity within the Cooks River Sustainability Initiative. The aim of the social research was to critically examine the project and capture important insights and lessons learned. Such research is perceived to deepen insights and learning beyond general project evaluation and is understood as having the potential to contribute critical insights that practice-based reflections, on their own, are unlikely to reveal. Therefore such research substantially improves the opportunity for enabling sector-wide transitions towards more sustainable practices. While this model of (industry-funded) scientific research alongside real-life projects is increasingly advocated, literature pays little attention to the ways by which such research is conducted. Research methodology may detail specifics of the qualitative or quantitative nature of the research, however the practical dynamics and challenges are not often reflected upon. This paper presents a first-hand personal reflection on the research project within the Cooks River Sustainability Initiative. It aspires to provide broader understanding of what a process of social research entails and how research allows for in-depth insights and learning. Findings from this study can help both industry actors and social researchers in defining expectations of future research opportunities. In addition, it may help industry actors to create an enabling environment for research to be undertaken and may support researchers to prepare for implementation of their research.

1.0 Introduction

Within the literature on water management, there is a vast increase in case study research that investigates how traditional water practice can be transformed to more sustainable forms of water management (von Korff et al., 2012). Such research is perceived to deepen insights and learning beyond general project evaluation and is seen as having the potential to contribute to a sector wide transition to sustainable practice. In addition, it has been suggested that more empirical research is needed to increase understanding of the complexity of sustainability transitions (Markard et al.,

2012). Therefore, in Australia and beyond governments and industry are increasing faces decisions as to how best to fund scientific social research alongside real-life projects.

While there are specific calls for increased empirical understanding of transition processes, very little attention is given to the practical dynamics of undertaking such research. Similar to what Irvine and Gaffikin (2006) have identified in the field of organisational studies, publications within the water management literature often present a fairly disappointing compromise between the research approach, the collected data and its interpretation. The researchers' personal and anecdotal experiences of executing the research are not often shared. Although this may be viewed as appropriate to the nature of scientific research, it does not reveal what is going on within the research context that may affect undertaking the research. Moreover, such publications do not provide insight into specific challenges and difficulties that empirical researchers come across. Research, in particular social research that uses qualitative methods for data collection, is not linear and does not often go according to plan as researchers become acquainted with the research context, its values and politics (Punch, 1998; Irvine and Gaffikin, 2006). The uncertainty of a research process can be challenging and frustrating not only for researchers but also for research participants. This is particularly problematic as a model of industry-funded scientific research is advocated in a water sector that historically prefers linear and clear processes and solutions (Farrelly and Brown, 2011). Ambiguity surrounding research projects could potentially lead to misunderstandings between scientific and industry partners.

It is against this background that this paper seeks to provide a personal account of a social research project that took place alongside the OurRiver - Cooks River Sustainability Initiative. The broad aim of this research was to critical examine this initiative and capture important insights and lessons learned. This paper centres on how the research was conducted and strives to provide insight into the dynamics of undertaking the research. Therefore, the paper primarily focuses on the process of research from the researcher's viewpoint, rather than presenting the results emerging from the mixed-method research techniques applied in the OurRiver - Cooks River Sustainability Initiative. By doing so, the paper offers a behind-the-scenes view of how a complex, mixed-method (qualitative and quantitative components) research project was carried out across eight municipal councils. It offers a unique insight into a good example of collaboration between research and innovative practice. While the paper primarily reflects the experience and considerations of the principal author of this article, these also represent the secondary author's perception who has been closely engaged with the initiative at various stages and has guided the research project as a supervisor. Illustrative research reflections (in Italics) are intended to disclose the personal nature of undertaking the research.

The paper is structured as follows: the next section will provide a brief introduction to the OurRiver - Cooks River Sustainability Initiative, providing a glimpse of the context in which the study was conducted. This is followed by a short description of the research issue under consideration and an explanation of the methodological choices that have guided the research. In line with Irvine and Gaffikin (2006), the paper then describes aspects and interactions to get the research started, to collect the data, and issues surrounding exiting the research context. The paper concludes with a description of the insights gained from the reflections and the implications for industry actors and researchers involved in industry-funded research.

2.0 The OurRiver - Cooks River Sustainability Initiative

The OurRiver – Cooks River Sustainability Initiative (CRSI) was working closely with eight Councils and local communities to achieve sustainable urban water management through developing sustainable water sources, reducing pollution and creating water wise communities. Overall, its efforts aimed to improve the Cooks River health, conserve water resources, and develop and increase the capacity of Councils and local communities.

CRSI was based on Marrickville Council’s Urban Stormwater Integrated Management (USWIM) model – an experimental, collaborative, context-based and multidisciplinary process designed to develop local, context specific sub-catchment management plans. This model was developed from previous scientific research in the Metropolitan Sydney region which recognised that the managing urban water is hampered by (Brown, 2003; Marrickville Council, 2007):

- Thinking too small – single-disciplinary professionals defining solutions for complex, uncertain problems
- Talking too little – affected stakeholder perspectives (ranging from residents to government agencies) not included in planning
- Planning too big – solutions not appropriate to local context

The USWIM project was partnership between Marrickville City Council (Sydney) and Monash University (Melbourne). CRSI built upon the USWIM foundation and applied the approach to six sub-catchments across the Cooks River region. This required applying an innovative process to new areas across eight different local government areas. The process helped Councils, communities and other catchment stakeholders to explore and recognise perspectives and interdependencies in addressing urban water. It also revealed how stakeholder roles and functions could be shared and complement each other.

CRSI substantially differs from conventional urban water practices in the Cooks River catchment and in the wider Australian water sector. Table 1 outlines attributes of CRSI in comparison to attributes of traditional urban water management.

Table 1: Innovative differences between CRSI and traditional urban water management

Attributes	OurRiver – Cooks River Sustainability Initiative	Traditional Urban Water Management
<i>Scale</i>	Development of plans at <i>sub-catchment scale</i> to ensure appropriate solutions to the local (physical, social, economic and organisational) context.	Plans designed for entire river catchments without taking into account local circumstances.
<i>Expertise</i>	Facilitating integrated approach to urban water management through <i>multi-disciplinary</i> cooperation to address multiple water issues and purposes (e.g. stormwater quality, amenity, flooding, water re-use).	Components of the water cycle are compartmentalised and dealt with in narrow focussed disciplines. In addition, engineers focus on stormwater drainage issues; environmental officers are responsible for waterway health.

<i>Role of community</i>	<i>Collaborating with local communities</i> to tailor solutions and build support and ownership of alternative construction projects.	Government manages water on behalf of communities. Communities informed after decisions have been taken.
<i>Governance focus</i>	<i>Addressing regional governance</i> issues to ensure long-term, coordinated management and resources to implement sustainable urban water management practices.	Municipalities focused on water management within individual administrative boundaries.

Source: Bos et al. (2012)

Outcomes of the initiative include: system learning among a wide variety of stakeholders, six sub-catchment community visions and water management plans endorsed by eight municipalities, Council professionals and community members trained and educated, barriers and gaps to achieve sustainable urban water management identified in each of the Councils, ten site-specific water sensitive urban design infrastructures constructed, and the Cooks River Alliance, a new model for regional governance, established. The initiative’s process and (learning) outcomes have been further described in Wisniewski-Jakuba et al. (2010) and Bos and Brown (2012).

CRSI was a partnership between eight Councils, the Cooks River Foreshores Working Group and Monash University. It was funded by the New South Wales Environmental Trust’s Urban Sustainability Program and ran from 2007 and 2011. In contrast to most grant funded initiatives, CRSI had a dedicated project team consisting of one project manager and four project officers. This project team was assisted in carrying out project responsibilities by a steering committee (existing of municipal officers) and an executive ‘champion’ committee (existing of Councils executives). CRSI’s budget included funding for doctoral research to be undertaken alongside the initiative.

3.0 The research and its methodological choices

This section provides an overview of the considerations and methodological choices underlying the research so that the nature of the research component can be understood before exploring the actual practicalities surrounding the research.

As earlier indicated the broad aim of the research was to critically examine CRSI and capture important insights and lessons learned. The specific ambitions of the doctoral research were, firstly, to critically inform the urban water sector on how experimental governance processes, such as applied within CRSI, could be used as instruments to further sustainable urban water management. Secondly, it was anticipated that the research would contribute to theory development about transition processes in the scientific field of ‘sustainable transitions’.

A single-embedded case study approach was selected as an appropriate research strategy for addressing the proposed research. A case study allows the researcher to investigate a contemporary phenomenon, such as experimental governance processes, within its real-life context of the Cook River Catchment especially where behavioural events cannot be controlled (Scholz and Tietje, 2002; Yin, 2009). The examination of the experimental governance approach and its generated outcomes, needed to involve capturing the unique experience and understanding that individual actors gained through their direct experience of partaking in this process of governance experimentation. The

impacts of such experimentation are empirically largely unknown and may be experienced and interpreted differently by different actors depending on their involvement and role in the initiative. Additionally, the research strived to identify likely causes for changes in actor understanding through partaking in CRSI. To obtain deep, valuable insights and cover a wide range of actor perspectives, this case-study research entailed a mixed qualitative and quantitative methods approach (Creswell and Plano Clark, 2007).

Qualitative methods research intends to produce interpretations and narratives that emphasise actor meanings and understandings about phenomena. It recognises the contextual nature of an investigation and presents existing realities of different actors. Qualitative research helps to understand “underlying patterns in ways that yield a shared experience of coherence, identity and purpose” (Conklin et al., 2011, p 148). It is thought that qualitative research requires a close relationship between researcher and what is studied in order to make sense of the meanings different research participants have (Denzin and Lincoln, 2011). Within the qualitative research strand there is emphasis on the role of the researcher as an active learner (Creswell, 2009). Contrary to qualitative research, quantitative research uses a deterministic approach to developing knowledge (Creswell, 2009). It observes and measures information through numbers and separates facts from value and meaning. Qualitative research reflects an approach in which causes are likely to determine effects or outcomes. According to Lincoln and Guba (1985, p. 111) it has the capacity to identify the “general laws that serve for explanation and prediction”. The researcher collects the data through predetermined instrument based questions and generally there is a distant relationship between the researcher and the research participants.

By providing more than one research perspective, the mixed method approach offers a more comprehensive, complete and in-depth explanation of phenomena under study through convergence of the data (Denscombe, 2007; Yin, 2009). It also helps to answer questions that cannot be answered by applying a single qualitative or quantitative approach and allows involvement from a larger number of research participants. Knowledge claims derived from mixed method research are made on pragmatic reasoning and a combination of quantitative and qualitative data (Creswell, 2009). While mixed method research may yield reliable and robust insights it is a complex and time consuming process. In addition, such research requires an emergent disposition to re-design of the research based on experiences derived from collecting and analysing data. Kirk and Miller (1986) stress that researchers need a high tolerance for ambiguity when undertaking research that involves qualitative methods.

Data within the CRSI research project was accumulated through a number of surveys and the process of fieldwork to obtain qualitative data. Qualitative data methods included oral histories, (group) interviews, direct observation and document analysis. Fieldwork to collect this data involved interaction with research participants over a long period of time and helped to develop a well-rounded understanding of how different stakeholder groups perceived the initiative and its outcomes.

The research was not designed as an action research project which implies application of scientific knowledge and the use of this knowledge by practitioners, whereby the researcher has a specific role of facilitator and teacher (Greenwood and Levin, 2007). However, based on previous professional experience the researcher was asked to contribute to activities that guided project

action. It was, therefore, important to clarify the role of the researcher within this research as it could have brought into question the relationship between research and some of the actions. Ison and Watson (2007), based on their experience in the SLIM project (SLIM, 2004), describe three different researcher positions:

1. as an *observer*; observing a complex environmental management situation with an interest in understanding the factors at play. Here the researcher observes to reflect and understand (learn);
2. as an *enabler*; enabling the environmental policy-making process with an interest in identifying and helping to create conditions conducive to learning. Here the researcher facilitates through the use of tools, skills and data, the learning of others; and
3. as a *co-constructer*; within a situation jointly reflecting upon an environmental management situation with other stakeholders who wish to gain a deeper and more comprehensive understanding of the situation in which they find themselves. Here the researcher co-constructs knowledge in action with stakeholders in joint process with share responsibility.

The principle position of the researcher within this research at the onset was the ‘researcher as observer’; the secondary position of the researcher was the ‘researcher as enabler’. The latter role would involve co-facilitation of some steering committee and executive champions meetings.

4.0 Undertaking the research

4.1 Getting started

Industry partners may each have different objectives to engage in partnerships with universities. While for some the process of data collection is seen as important step in developing an innovative technology or process, others may be mostly interested in the results of the research. By the time the researcher starts to collect data, a significant time has already been invested in the research by the researcher which may not have been visible to the industry partner. Even though CRSI funded the research project and offered a valuable research context with the scope for the collection of rich data, the research itself including its questions needed to be developed from scratch. It took the researcher about a year to study relevant literature, to develop a research proposal which was of significance to the scientific world and the urban water sector, and to obtain ethical clearance to carry out the research. While there was regular contact between the researcher and the research partners, in particular with the project team, this work was predominantly undertaken outside the CRSI context. At the initial stage of the research it had been unclear to the project team what the exact role of the researcher would be, how she would be involved in the initiative and what her physical location would be. Uncertainty about the research project caused slight anxiety for the project manager. The research component was outside the manager’s direct control; however she was responsible for CRSI’s project deliverables and considered the research component as one of her responsibilities. Although some questions could be directly addressed by the researcher and her supervisor, particulars of the research process could not be provided yet as this was work in progress. Time was taken to explain the process of research and during these discussions expectations of the project team and the research partners were shared. In this process, the University partner broadly

followed Irvine and Gaffikin (2006) who outline that it should be made clear from the start that research, in particular when it involves qualitative research, is flexible and that the practical value to a project itself may not be as apparent as it is hoped. This is particularly the case with project research. While a research project may yield interim results that could inform the project and its participating organisations while being implemented, final research results may only become available after a project is finished. At this stage, it greatly helped that there was a senior industry person that had vast experience with research projects. This individual helped translating the benefits of research and assisted others with being comfortable with the necessary ambiguity surrounding the research project. Over time, through ongoing dialogue and regular interaction, trust was built between the project team and the researcher and a good relationship developed. There was less direct communication between the wider project partners and the researcher during this first year. However, the researcher regularly presented progress in developing the research to these project partners during steering committee and executive champions meetings.

4.2 Collecting data

The granted CRSI project proposal, which explicitly acknowledged Monash University as a research partner in the project, was signed off by all participating Councils. This was greatly helpful for the researcher in obtaining ethical approval from the University without having to negotiate access to the participating partner Councils. While the project agreement indeed firmly embedded and legitimised that research was part of the initiative, this did not automatically mean that the researcher could go straight ahead and start with collecting the data within each of the Councils. In practice, the agreement had provided a gate to access but had not determined to what extent the Councils were willing to participate in the research. For some Councils the explanations provided during the steering and champions committee meetings had been sufficient to proceed, while for others the extent of Council involvement was to be negotiated. In this case, the researcher had to further justify why their ways of managing water and implementing CRSI needed to be studied. While it was understood that the research was undertaken under formal University research ethics, it was felt by some participants that there was a potential risk with sharing sensitive information, with the principle concern that this may not be treated with confidentiality and could be used inappropriately in the future and hence risking their reputation and relationships. Also, of particular concern was that information would be provided to the media. To address this concern, a separate confidentiality agreement was signed in two cases. Some Councils also indicated that they had concerns in regard to time-commitment from already time-poor staff and a very specific plan needed to be devised before the Council committed. In two cases, Councils did not agree to take part in the study as designed. This was in particular in regard to an all-staff survey, one organisation declined approval of this element of the research, another organisation only wanted to send it out to pre-selected staff. Gaining commitment and full access to the Council was highly demanding for the researcher:

“I felt like I was being interviewed for a job and at the mercy of the interviewer, while eager to please and keen to compromise I also wanted to set out realistic expectations”

Nevertheless, the negotiating access process proved to be highly rewarding as all Councils went to a great extent in allowing the researcher into their organisation. In a number of cases the Council

became extensively engaged and generous in making data collection possible. For instance, one Council produced posters to promote participation in one of the surveys. This poster, which was distributed through the whole building, was professionally designed and stated what benefit staff participation would bring to the research and their organisation.

The different data collection methods posed challenges at different levels. Early in the data collection period, the researcher planned a survey which contributed to the understanding of water management practice in each Council. As Councils by then had agreed to undertake the survey, the researcher was optimistic that the data collection process would be rather straight forward from there. This is when the researcher extensively learned about the differences in Council needs, procedures and processes. While some Councils were satisfied to distribute the survey after initial agreement, some other Councils had extensive communication procedures and approval processes (which in some cases took up to many months). In addition, each Council used different language for similar areas of service and organisation. Survey and interview questions needed to reflect this language in order to ensure participant understanding. It was also at this stage that organisations wanted other questions included in the survey to suit their own additional research agenda. As often limited resources are allocated to research it was understood that industry funding partners will be seeking to maximise their investment. Within CRSI, this led to negotiating what was appropriate to include and what not. To fulfil the different requirements became a much more time-consuming and challenging task than expected:

“I had the idea that I would be able to execute the surveys in all Councils at the same time. I saw this as highly beneficial to my research and understanding of the research context. This plan hugely frustrated the project team officers as through experience in the project they had learned that this wouldn't happen. Soon I realised that they were right and they kindly offered to help me in the processes of getting approval, while I reconsidered my research plan. In the end these surveys were conducted over the period of one year instead of one month!”

While the process of obtaining quantitative research data at this stage had been challenging, it provided a deep insight into how Councils function and differ. This process in itself was of great significance in understanding the CRSI context and understanding how sustainable urban water management may or may not be achieved. The process of undertaking surveys later in the project went a lot smoother as the researcher knew what to expect.

One-to-one interviews potentially offer an exclusive opportunity to explore the interviewees' experience in relating to the initiative. The manner in which interviews are conducted is of high significance for the extent to which a researcher can enter into the reality of an interviewee. Patton (2002, p. 353) argues that ideally an interview “lays open thoughts, feelings, knowledge and experience not only to the interviewer but also to the interviewee”. Therefore, semi-structured interviews were undertaken (Rubin and Rubin, 2005). Irvin and Gaffikin (2006), based on Roulston et al. (2003, p. 643) contend that interviewing challenges include “unexpected participant behaviours, dealing with the consequences of the interviewers' own actions and subjectivities, constructing and delivering questions and handling sensitive research topics”. At different stages, each of these challenges proved to be true in this research. The choice of whom to interview was intentional throughout the research. Overall, people were very willing to be interviewed once the researcher approached them. In particular, many of the closely involved actors who by now were very familiar

with the research component wanted to be heard. There was no difficulty in getting people to talk. Rather as recognised by Irvine and Gaffikin (2006) at times it could be challenging to move from the 'warm up' phase to the more 'serious' phase of the interview. However, the 'warming up' phase was of great significance in establishing trust to share further information. At times, unexpected and emotional issues surfaced during the interviews relating to peoples background and/or project experiences. Extreme care was taken to ensure a safe environment and in which full confidentiality was maintained. Confidentiality remained an issue for some of the research participants. Ethical considerations were discussed and agreed upon before the interview, however the researcher was regularly asked to stop the recorder so that someone could actually say what he/she wanted to say. This especially happened during the interview series half-way through the project. The nature of CRSI was very different to conventional water planning and there were no set tangible outcomes to the project. CRSI focused on processes instead of outcomes and this caused a lot of uncertainty among the industry partners. The project was going through a tough phase at the time of the half-way interviews; carrying out CRSI process seemed to take longer than assumed, no results were yet seen and the project manager had just left the project. During these interviews, people became more personalised in their feedback and critique and constant reassurance of confidentiality was necessary. Great care was taken when discussing sensitive issues, however, the researcher left one interview feeling that one of the questions was misinterpreted and caused a bit of anxiety among the interviewee as well as the interviewer:

"I left the interview feeling rather drained. It had been a good interview in which information was openly shared but somehow there was some miscommunication. I listened back to the recorded interview and decided to approach the interviewee to ask if he felt misunderstood during the interview. This led to a constructive and friendly conversation about the interview. "

While the researcher was willing to travel to offices and other public places that suited the interviewee, interviewees also suggested meeting in places more convenient for the researcher. There were very little practical difficulties in organising and undertaking interviews.

Focus-group interviews were also conducted within and across Councils. Group dynamics are the distinct features of focus-group interviews (Thomas et al., 1995; Rabiee, 2004). Some authors would argue that social interaction generates a type and range of data that is deeper and richer than data obtained from one-to-one interviews (Thomas et al., 1995; Rabiee, 2004). In addition, a wider group of potential research participants can be reached. One type of focus group interviews undertaken in this research aimed at understanding urban water management within a Council. These interviews seemed to have great benefit to the research participants as the significant majority of participants commented on the usefulness of hearing other staff's opinions on water management within their Council. In some cases, participants from one organisation had never been around the same table to discuss water related issues, in other cases some participants commented that if they would have organised such a forum themselves no senior staff would have turned up, at least not for such a considerable amount of time. To start the discussion within the group interview, the researcher first asked the participants to individually answer thirty questions on organisational capacity for Sustainable Urban Water Management. The researcher was initially quite nervous whether this would work:

“I had asked people to invest time in a group discussion and the first thing I would ask them to do is to read something and answer it. I just wasn’t sure if participants would be willing to do this task. I was pleasantly surprised. Everyone, no matter where they were on the hierarchy in the organisation, was happily willing to do so.”

Many people commented on how useful this start to the focus group discussion had been as, firstly, it helped them to focus on what we would be discussing in the meeting. Secondly, from the nature of the questions participants indicated that they started to appreciate the complexity of the issue. As participants did not finish this task all at the same time, an article on the topic of organisational development for sustainable urban water management was provided for reading to ensure no participants would start to wander off in the 10 -15 minute wait they had for their colleagues to finish. While the survey used in the focus-group discussion was generally very well appreciated, the only point of contention was its development. The researcher always explained to the research participants the development of the instrument which was first trialled in Melbourne with other councils. While it was important to recognise local context, it was also important to ensure the instrument was suitable for another context than Sydney. This in order to enhance the generalisability of the tool and the results it produces. During the focus-group interview, the researcher was a few times asked about the instruments relevance and appropriateness to the Sydney context.

The researcher had indicated to the steering committee members and the project team what type of people were desired to attend the focus-group discussion. Further organising, including arrangement of catering, was done by these actors. Once agreement to access the organisation was negotiated, one-to-one interviews and focus-group interviews were a straight forward process to organise.

A range of meetings and other project activities were observed during the course of the project. Irvine and Gaffikin (2006, p.129) state that “the more frequently the observer is present, and the more taken-for-granted it is to have that person there, the more likely it would seem that people behave in their normal way”. Although the researcher was not all the time present, her continuing presence became normalised in the project albeit in the form of an outsider. Being a trusted outsider meant that people started to initiate conversations, share opinions and confided in the research about project matters. Often the researchers’ views on dynamics, processes and activities were being sought by a range of research participants. During the initiative there were some strong disagreements between participants with the impact of some people feeling hurt, upset, frustrated and/or alienated. These people were wanting and eager to have someone listening to them. After some time the researcher may gain knowledge that project leaders may not yet have or the researcher may have picked up dynamics before they erupt (Irvine and Gaffikin, 2006). Also, the researcher may pick up on weaknesses that potentially influence the actual project processes and outcomes:

“As an experienced facilitator with a passion for the CRSI project, I have found it at times very difficult just to observe meetings which were poorly facilitated.”

In some cases, industry may have engaged the researchers for strategic purposes as ‘outsiders’ as they are often more able to expose and voice issues in comparison to the ‘insiders’. This raises the question of research ethics and practical obligation for the researcher in terms of whether feedback

to project leadership should be provided or not. Should the researcher intervene, speak up, advocate, advise, or just be a friend (Glesne and Peshkin, 1992)? In particular in industry-funded research, this may be a dilemma.

Within the CRSI research component the researcher experienced that there is a fine line between research and providing information that could be described as a 'consultancy services'. Even though the researcher was an 'outsider' she had also become part of a team who saw her as being able to provide solid, reliable information in regard to actual CRSI project aspects. This resulted in ongoing discussion of what was part of the research project and what wasn't.

While collecting data through a mixed method approach adds rigor to a research process, it is also as demanding for the researcher as for the industry partners and participants. Within CRSI, a large number of people over a long time period were involved through its diverse methodologies. As the steering committee members and the project team were very much involved in the organisation of the data collection, by getting people together, distributing surveys etc. stamina among those actors was needed.

4.3 Data analysis

Preliminary data analysis started as soon as the researcher started to collect the data. This helped the researcher to understand and shape the research as it progressed. It also provided some early research outputs that were of interest to the project partners. Although a researcher may need to be open and generous with his/her research findings, preliminary thoughts are not final and the researcher cannot be held fully accountable to these findings as they might change.

5.0 Leaving the project

Although it was sad to see the project come to a close it was also good as it gave clear closure to the research as there was no process to follow anymore. At the end of the project, partners and the wider water sector saw this project as hugely successful in terms of furthering sustainable urban water management in the catchment. The researcher finalised the data collection period and interactions with the project team and partners with a series of focus-group interviews. While these interviews did not only generate important research data, research participants were highly enthusiastic about the opportunity to reflect on the overall project its successes, frustrations and outcomes. Many research participants indicated to find this very helpful in departing from such an intense period of participating in CRSI.

On the onset of CRSI there were no set expectations or obligations in terms of reporting back to the project partners before closure of the project. However, some valuable outcomes for industry partners included reports that contained robust, reliable evidence of how their organisation functions in regard to sustainable practice. Findings presented in these reports informed formal and informal discussions on alternative governance arrangements in the Cooks River catchment. Furthermore, a number of industry partners have used these reports beyond the scope of the CRSI project.

Preliminary research findings from the research have been presented in national and international conferences. As overall research findings started to surface near the end of the initiative (as data was collected until the end of the project), scholarly and practical-oriented outcomes have only started to become available after closure of the CRSI project. So far, research outputs have been used by individuals and organisations in the continuation of developing sustainable urban water practice in the Cooks River catchment. In addition, insights have started to influence international thinking on managing sustainability transitions.

6.0 Industry-funded research: key-lessons for industry and social researchers

Social research can provide a critical reflection on ongoing and innovative practice and potentially helps individuals, organisations, the water sector and broader society to transition to more sustainable water practice. Based on insights derived from CRSI, table 2 presents key-lessons for both researchers and industry participants in undertaking industry-funded social research. These lessons help to ensure that this type of research is really successful and that research objectives can be met. These lessons intend to support social researchers to prepare for implementation of their research and intend to help industry actors to create an enabling environment for social research to be undertaken.

Table 2: Key-lessons for researchers and industry partners to engage in industry-funded social research

	Researcher	Industry partner
Dimension		
Role of researcher	The researcher needs to be thinking carefully about what role he/she wants to take in research and ensure this is agreed with industry partner. A role may change during the research project but need to be planned in advance.	Industry partners should be clearly outlining what role they expect the researcher to play. If the role is a co-creator role, the researcher is much deeper involved in the project.
Research process	The researcher has a responsibility to keep research partners updated on research progress. Expectations around communication in regard to objectives, data collection, and reporting need to be agreed upon early in the projects.	Industry partners are entitled to know what is going on within the research project and can expect to be updated. However, industry partners need to maintain an open disposition to the research plan changing as new findings reveal themselves.
Methods	The researcher needs to be able to clearly explain the value and processes of the scientific methods, why they are chosen, its generalisability and their implications for the integrity of the research outcome.	Depending on the methods, industry partners need to be active in supporting and providing access to the organisation and its staff. Industry partners should also support as much as possible staff involvement where needed.
Access	Even when the industry partners have granted access to the organisation(s), the researcher cannot expect immediate legitimacy with prospective participants and must develop a plan for pro-actively engaging the research partner in order to undertake the research in that organisation.	Industry partners can help researchers by providing a stable contact person within the organisation and outline the procedures required for internal approval for research. In addition, senior support is support for desired for signing off on approvals.
Confidentiality	The researcher should maintain confidentiality as basic practice and should and reassure confidentiality as often	University sanctioned research involving humans is strictly bounded by ethical approvals that ensures how research is conducted is ethical and safe. Researchers are

	as necessary.	required to obtain information from the research partners to attain ethical approval. Industry partners can support this by providing everything the researcher need for this ethical approval.
Sharing of findings	The researcher needs to be prepared to share interim/preliminary findings. The researcher needs to reinforce that the ultimate findings are unknown and that they will change.	Industry partners should understand that findings may be preliminary and should accept this, otherwise researchers may not be willing to share until the end. Research processes are taking place over a long time and may not necessarily give results in short time frames as may be desired.
Need for champion	It is desirable for the researcher to find a senior champion associated with the project who understands research processes and can help with expectations management.	
Skills and qualities of a researcher	Undertaking qualitative data collection is a personalised and relational experience. A researcher needs empathy to listen but also skill to analyse issues at a project level rather than a person level.	

7.0 Conclusions

An external social researcher has independence, distance, time and space to reflect on the totality of a project as complex and novel as the Cooks River Sustainability Initiative. Not being tied to a project agenda allowed the researcher to view the project in a broader context and to identify important insights for the future of sustainable urban water management. This paper has highlighted the value of independent research running concurrently to a new initiative. This paper also contributes to understanding how future social researchers might design, construct and undertake research in association with industry partners.

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