Submission to Local Environment

Social licences to operate: For better not for worse; for richer not for poorer? The impacts of unplanned mining closure for 'fence line' residential communities

Alison L Browne*

Lancaster Environment Centre, Lancaster University, Lancaster, UK

Daniela Stehlik

The Northern Institute, Charles Darwin University, Darwin, Australia

Amma Buckley

Research Centre for Stronger Communities, Curtin University, Perth, Western Australia

* Corresponding author: Lancaster Environment Centre, Lancaster University, Lancaster, LA1 4YW. Email: a.browne@lancaster.ac.uk

Word count: 7917 words

Social licences to operate: For better not for worse; for richer not for poorer? The impacts of unplanned mining closure for 'fence line' residential communities

Establishing 'social licences to operate' with communities has become a significant corporate social responsibility agenda. The complex dynamics of these relationships can compound the impacts for communities when these contracts are not upheld. This article documents reflections from a Rapid Rural Appraisal conducted in the Shire of Ravensthorpe in remote Western Australia after the Ravensthorpe Nickel Operation was 'mothballed' nine months into a projected twenty five year life span. It captures how communication about the project and its timeframes created a sense of consistency, predictability, certainty and trust - enabling the social licence. The raising of hope, and the emergence of mistrust underpin the social, environmental and financial impacts of this event for the local community. Embedded in the theoretical dimensions of social licences this case study highlights the problematic of social licences that engage with non-contractual stakeholders as partners in 'booms' but have no legal responsibility towards them in times of 'bust'.

Keywords: mining; social licence to operate; corporate social responsibility; mine closure; Western Australia

Introduction

Current business models often emphasise particular strategies of community engagement and corporate social responsibility (CSR), which extend the ties between businesses and non-contractual stakeholders beyond what is considered normal business practice (Kleinrichert, 2008). Such approaches challenge traditional notions of rural governance and place companies as main players in the governance of regional and remote development (Cheshire, 2010). This is particularly the case within the mining industry in Australia. These 'business-in-community' approaches create a sense of security and certainty in the future, and establish what is known as a 'social licence to operate' within a regional community. What is little recognised are the unintended impacts of these increasingly complex social-political-business relationships for the local communities in which these social licences are established. This is particularly compounded in residential mining models (also known as fence line mining where the mining company is a direct neighbour of an already established

community) and when obligations and responsibilities of these social contracts are not upheld.

This paper reflects on a Rapid Rural Appraisal (RRA) undertaken in a remote part of south Western Australia (WA) - the Shire of Ravensthorpe (see Figure 1) - after a residential mine, initially established with a strong social licence to operate in the region, suspended operations 9 months into a promised 25 year lifespan (Browne, Buckley & Stehlik, 2009). The mine was an open cut nickel-cobalt hydroxide mine and processing facility called the Ravensthorpe Nickel Operation (RNO; BHP Billiton, 2005). Uniquely for a country dominated by long distance commuting such as FIFO (Fly-In Fly-Out) to remote mine sites, the RNO was developed as a mixed-residential model in the remote Shire of Ravensthorpe (herein referred to as 'the Shire'¹). What distinguishes this example of closure from the fairly heavily documented closure of industry and mining across the United Kingdom and other parts of the world (e.g., Clark and Wrigley, 1997; Cloke, Milbourne & Thomas, 1996; Haney & Shkaratan, 2003; Rollwagen, 2007; Whitbread-Abrutat, 2004), is the complex social-political-business partnerships forged in the establishment phase of the mine, compounding the impacts of the mines sudden closure for those in the region.

By exploring the case study of the suspension of the RNO, in conjunction with the theoretical basis of this social licence model, the contributions of this paper are three fold. First, the specific focus of this paper is to explore some of the potential impacts of closure for place based communities which are relatively dependent on development projects to support regional economic stability and growth. This focus

¹ The word 'shire' is used in Australia, particularly remote parts of Western Australia, to denote an administrative region known as a local government area (LGA) managed by local government councils. 'The Shire of Ravensthorpe', also known simply as 'The Shire' by residents reflects the administrative LGA and council regions of Ravensthorpe Ward, Hopetoun Ward and Rural Ward (including Jerdacuttup).

on the range and significance of impacts for non-contractual stakeholders is important as the majority of research currently captures impacts of mine suspension and closure for formal shareholders, stakeholders, employees and the company involved. That the social, financial, and environmental investments required from the community for residential and other mining models are still not included as a final part of the negotiation of this social licence to operate and general calculation of project costs, including the eventuality of unplanned closure, needs exploring.

Second, current approaches to mining and industrial closure generally focus on the processes for planned closure (e.g., ANZMEC, 2000; Blackman et al, 2009; ICMM, 2008; World Bank Group, 2002), with forecasting, planning and communication strategies for sudden suspension or closure notably absent. Given the reactivity and volatility of many resource based industries to the financial markets (MMSD, 2002), this paper highlights the need for adopting a more comprehensive approach to planning for different types of closure. That a precautionary approach and planning for multiple types of closure when establishing social licences to operate with communities is not adopted worldwide is surprising, particularly given this is increasingly supported by international organisations (e.g., Pellizzoni & Ylönen, 2008; UNEP, 2005).

Such planning is particularly important in times of economic uncertainty as it has been identified that at these times unplanned and premature closure of mining sites is escalated (Blackman et al, 2009). In the period between 1980 to 2006 the maximum number of mines to close in any one year worldwide was approximately 50 (Blackman et al, 2009; Laurence, 2009). In 2008-2009, 120 mines closed prematurely, double the amount in the previous 26 years. (Blackman et al, 2009; Laurence, 2009). In an analysis of over 1000 closures Laurence (2006, 2009, 2011)

found that in the 30 year period between 1981 and 2009 around 75% of the mines that closed were unplanned or premature. This highlights the significance of the current case study of Ravensthorpe as there is a worldwide pattern of unplanned and early closure of mine sites, with little done to prepare communities or other stakeholders for the uncertainty that characterises resource industries.

Finally, uncertainty (which is of course both internal and external to organisations) is a common feature of business development, success and failure. However, what is often communicated to communities to guarantee buy-in is certainty and an escalated expectation of the benefits to be derived from the projects (Flyvbjerg, Bruzelius & Rothengatter, 2003). This is significant in Australia where there is a reliance on market mechanisms to provide social, environmental and economic good (particularly throughout remote and regional Australia; see Cheshire 2006, 2010). In such political and economic circumstances there is often pressure for regional communities to legitimise a company's presence by buying-in to a social contract that promises significant social and economic benefits that are difficult to access through any other mechanism. In such instances the communication of certainties rather than probably uncertainties and risks in the establishment of social licences should be questioned.

The context of fence line mining in Australia

During the gold rush and other mining booms in Australia many residential towns were established - a term which defines where mining workers and other residents live in situ in the local government area (LGA) where the mine operates (Haslam McKenzie et al, 2009; Yakovleva, 2005). These are also known as 'fence line' communities (Calvano, 2008). Many rural Australian towns can be traced back to such a history (Davison, 2005). Australia also has a fairly long history of occupational

mining communities; permanent townships established exclusively for mine employees and other related workers (Haslam McKenzie et al, 2009; Yakovleva, 2005). However, since the 1980s models of long distance commuting such as FIFO and more recently Drive-In Drive-Out (DIDO) have become the preferred options (Chamber of Minerals and Energy, 2005; Storey, 2001). In this approach companies fly (or drive) workers from their residence, most often a coastal urban city, to the mine site and settlement (Storey, 2001). FIFO and occupational communities have been shown to make particular economic sense for mines in geographically isolated regions, for sites that have a short life span and in regions where there is a shortage of skilled labour (Storey, 2001).

Due to the expense of establishing and maintaining residential mining communities there are only a small number still in operation within Australia, most of which have existed since the 1960s (Chamber of Minerals and Energy, 2005; Storey, 2001). Unusually the RNO was proposed at a time when few residential mines were in operation or being established. Residential mining communities strongly rely on the (social, cultural, and economic) capital and investment of non-contractual stakeholder relationships of people in the local community, of multiple scales of government ² and any interest groups.

The Ravensthorpe Nickel Operation and the history of 'The Shire'

The remote Shire of Ravensthorpe is located WA 536km south east of Perth, 186km west of Esperance and 293km east of Albany (Government of Western Australia, 2009; see Figure 1). The farming in the region is largely cropping and grazing. As is common with many rural communities in Australia Ravensthorpe's mining history records a series of boom and bust cycles. The Shire has a history as a gold and copper

² Australia has a three tiered government system – local, state and federal governments who are variously responsible for service delivery and infrastructural development in remote regions.

mining town and some of the agricultural land was opened up for mining during the 1960s and 1970s (Ravensthorpe Shire, 2009; Mayes & Haslam McKenzie, 2008). Physically, the Shire consists of the main drive-through highway town of Ravensthorpe, the Jerdacuttup farming community some 35 kms from Ravensthorpe, and a small community by the sea, Hopetoun, some 50 kms south of Ravensthorpe (see Figure 1). The Shire also contains a UNESCO listed biodiversity hotspot, the Fitzgerald River National Park. The RNO is located within the small farming district of Jerdacuttup on Bandalup Hill (Department of Industry, Tourism and Resources, 2006). The Jerdacuttup community is therefore the RNO's closest fence line neighbour.

Pre-feasibility studies for the RNO had commenced in 2002 (BHP Billiton, 2005; DITR, 2006) with negotiations with local, State and Federal governments from 2000 (Australian Mining, 2006). The RNO was formally approved in March 2004 (BHP Billiton, 2008a). This came with agreements of contributions from the WA State Government (\$18m), Federal Government (\$9.8m) and BHP Billiton (\$9.5m) to develop multi-user and socially relevant infrastructure, such as schools, housing, entertainments centres, an airport and roads contingent on the workforce being residential (Australian Mining, 2006; BHP Billiton, 2009c; Department of Industry, Tourism and Resources, 2006; Department of Industry and Resources, 2008). Given the range of mining and multi-user infrastructure investments, the RNO has been reported as the biggest investment in BHP Billiton's history (Australian Mining, 2006). The cost of establishing the mine was quoted as double the original budget allocated (Klinger, 2009).³

³ It is recognised that cost overruns are a common feature of project development (Priemus et al, 2008).

BHP Billiton had committed to a locally based residential workforce with the majority of employees being housed in settlements built in Hopetoun (BHP Billiton, 2004a; BHP Billiton, 2005). At that time, the residential workforce directly employed by BHP Billiton was estimated at 300 workers (plus families), with hundreds more to be indirectly employed on the project (BHP Billiton, 2004a). [A more hybrid strategy of residential and commuting workers was eventually adopted.](#) Residential workers were based in both Ravensthorpe and Hopetoun, a bus-in/bus-out system established from Esperance and, following the extension of the Ravensthorpe airport, a FIFO system from Perth (BHP Billiton 2008b). The RNO was officially opened in May 2008 (BHP Billiton, 2008a).

As at mid-2008, the estimated long-term locally based residential workforce stood at 650 people (plus families), with more than 300 families reportedly resident in the community, and an estimated 450 families moving into the Region by the end of 2008 (Department of Industry and Resources, 2008). Related to this increase in the residential mining community the Australian Bureau of Statistics (ABS) population growth statistics reported Ravensthorpe as the LGA with the fastest increases in growth per percentage of population across the whole of Australia (including urban Australia) in 2006-2007 (ABS, 2008a). Although growth had slowed marginally in 2007-2008 (from 10.8 per cent growth in 2006-2007 to 9.1 per cent growth in 2007-2008), Ravensthorpe was still identified as the second fastest growing LGA across the whole of Australia, just below that of the Perth metropolitan area (ABS, 2009).

Much of the RNO's promotional material cited the mine would be productive for 25 years (BHP Billiton, 2004b). Indeed, the expected mine life of RNO was quoted at 21 years in October 2008 (BHP Billiton 2008b), five months after it opened and only three months before operations were suspended. The decision to 'ramp-

down' and indefinitely suspend activities at the RNO was publicly announced on 21st January 2009 through the Australian Stock Exchange (ASX) (BHP Billiton, 2009a, 2009b)⁴. It was the first mine in Australia to announce a suspension to operations following the global financial crisis in 2008, citing the financial crisis and a rapidly falling nickel price. It echoed reports of cuts to jobs and closures of mines as a result of the economic downturn worldwide (James, 2009). RNO staff members were notified at an onsite meeting held that morning (BHP Billiton, 2009a, 2009b). The RNO has since been cited by financial analysts as mostly responsible for BHP Billiton's \$US1.5 billion after-tax first-half write-down in 2008 (Chambers, 2009a). Subsequent to this announcement, it has been reported that 1800 RNO employees and contractors were dismissed (Tasker, 2009). This includes both the 300+ employees directly employed by BHP Billiton (Department of Industry and Resources, 2008) and others indirectly employed, for example, as contractors to the RNO.

Although it is not the place nor intent of this article to infer the true cause of the closure (as this will never be known except to those involved in the management of the mine), media coverage and community sentiment at the time indicated that there were other reasons for the suspension of RNO. For example, the nickel price at its suspension was equivalent to the price when the project was initially scoped and recommended for development. Other difficulties referred to were problems with the type of operating systems used for this type of processing facility.

Establishing a Rapid Rural Appraisal Methodology to Assess the Closure of RNO

⁴ BHP Billiton suspended operations at the RNO nearly a year until a decision was announced by the company as to its future and the site was offered for sale. The RNO was finally sold to First Quantum for \$US430 million, and it is suggested that the RNO will re-open mid-2011 (Chambers, 2009b). The reflections of the impacts for the community in this article are based on research conducted in the year following the mines suspension, and prior to its sale to another resource company.

It was at this time that the authors decided to conduct a RRA to follow on from research they and other colleagues had conducted in the region from 2005. RRA is a survey methodology conducted to capture insights from a purposeful sample of participants on a particular issue within a specific context (Dunn, 1994). As Dunn argues, this approach reveals relevant information more quickly than traditional research methodologies, and enables researchers to interpret responses and transform local knowledge to inform development options. Given the experience of the researchers with issues in this region, and the need to adopt a methodology that responded to the suddenness of the closure, it was decided that this was an appropriate methodology. The approach provided an opportunity for local people to discuss and describe their awareness and reactions to, as many called it, the 'mothballing' of RNO; as well as to capture their aspirational views for the future in light of the changes to lifestyles and livelihoods (McCracken, Pretty & Conway, 1988).

The research consisted of a semi-structured interview questionnaire with members of the local community (local businesses, community leaders, community researchers from previous stages of research, education professionals, local government representatives, community groups and volunteers), and a forum with farmers from Jerdacuttup, the area directly next to the mine site. Both the semi-structured interview and the farmers forum captured the participants perceptions of the processes of closure; a general discussion about the short term and longer term consequences of the closure for their families, businesses, communities and the shire; and a more general discussion about wider consequences such as environmental, regional and state impacts.

The semi-structured interview went into greater depth about participants perceptions of the company across the lifespan of its operation in the community,

addressing key issues that underpin the concept of 'social licenses'. For example one question asked participants to assess the lifespan of RNO operation and whether it i) created a sense of reliability about its operations ii) showed concern for the community iii) provided avenues for open communication and information sharing and iv) displayed accountability in its decisions. A question was also asked about their acceptance of the original timeframes suggested by the company. These and other questions were used to establish the general perceptions and impacts of the closure, as well as trying to verify quantitatively (albeit retrospectively) how committed people were to the social license the company established in their region. For specific detail of the analysis of the questionnaire please refer to the project report written by Browne et al (2009).

Due to the residential nature of the mine, rather than focusing on mine-related employees, a whole-of-community approach to sampling was adopted. Using a local research facilitator to co-ordinate both the interviews and the farmers' forum a purposive sampling structure was adopted. Out of 138 invitations issued and a local media campaign (local and state radio interviews and newspaper articles informing about the project and asking for participants), 41 people participated in the survey interview and 24 in the farmers' forum. In a regional community in a state of flux with an already small population, this was seen to be a successful response rate particularly for a RRA which does not attempt a statistically valid sample but seeks to reveal contextually based and relevant information rigorously but quickly.

Data from the survey was analysed using SPSS, and NIVO software was used for the qualitative survey questions and the three researchers' field notes and farmers' forum notes. A content analysis of national media articles gathered through Factiva between June 2008 and the end of the project in December 2009 was undertaken as

well as a review of local and regional media not captured through the database (e.g., the local paper 'Community Spirit'), existing literature, reports and studies in the Region and Shire. As government and business documents about the closure of the mine were often not available, media reports and interviews conducted with the key stakeholders in the community were used as supplementary evidence.

The Significance of a Social Licence to Operate in 'Fence Line' Mining

Major resource and infrastructure developments in Australia are now regularly implemented in a model of business-in-community (Lonzano et al, 2008). This approach focuses on core business investments in combination with strategic social investments to address specific agendas for community and regional development (Reed & Reed, 2009; UN Global Compact, 2007). Socially relevant investments take many forms from using public involvement as a competitive edge for marketing, to a model where organisations partner with communities with a focus on establishing a social licence to operate within a community setting (Burke, 1999; Lozano et al., 2008). Engagements with non-contractual stakeholders include local neighbourhoods and communities, civil society organisations, and interest groups, local governments and national governments (Usui, 2006). Legally binding contracts rarely exist with these stakeholders but instead individual and group psychological/social contracts are formed creating the basis of this social licence (Global Mining, 2002).

These contracts can be established at the individual level reflecting an individual's belief about the terms of the relationship with another party, and at a group level (called a normative psychological contract) where members of a social unit (such as a local community) share a similar set of psychological contracts with another party (such as a business or organisation) (Rousseau, 1998). A social licence to operate, often also known as a normative psychological contract (Global Mining,

2002) is a “perception of an exchange agreement between oneself and another party....The perception of mutuality, not necessarily mutuality in fact is the heart of the psychological contract” (Rousseau, 1998, pp. 665-666, italics in original). It is not a specific, formal contract but a social tie extending normal business practice or courtesy to ensure a feeling of security (Kleinrichert, 2008). It is based on a notion of a diffuse, generalised obligation of reciprocity and exchange (Kleinrichert, 2008), of which of course there can be numerous interpretations and perceptions and from which conflict can arise as a result of divergent opinions about what the social license means. The term social licence reflects a diffuse type of legitimacy not supported through any contractual obligation, either ethical or legal.

A social licence enhances the reputation and acceptance of a company into a community through the establishment of relationships based on feelings of trust and reciprocity (Burke, 1999; Stehlik, 2005). This reputation is built on ‘intangibles’ such as “trust, reliability, quality, consistency, credibility, relationship, transparency” (Cowe & Hopkins, 2008, p. 102). This extends a company to being considered a ‘supplier of choice’, ‘employer of choice’ and particularly relevant for residential mining, a ‘neighbour of choice’ (Buckley, 2009; Burke). It creates a legitimised atmosphere of consent for the presence of a company in a community.

However, despite the need to establish both contractual and non-contractual relationships (Calvano, 2008; Mason & O’Mahony, 2008) in order to establish a residential mine, consequences of early suspension or closure for the non-contractual stakeholders are not well documented, nor well understood (Cheshire, 2010; CHOCILCO, 2002; Weyzig, 2009). This is because although community is often defined as one of the major stakeholders of mining activities (Yakovleva, 2005), ultimate responsibility lies with the shareholders and contractual stakeholders

(Kolstad, 2007; Mitchell, Agle & Wood, 1997). This is the case particularly ‘when times are tough’ and corporations fall back to traditional corporate governance where the overriding responsibility is to maximise shareholder returns (Mason & O’Mahony, 2008). Some authors even suggest that the social responsibility in business is always to increase profits and CSR is simply a form of investment [and a public relations exercise](#) for corporations (e.g., Friedman, 2008; Kolstad, 2007; Reed & Reed, 2009; Zammit, 2003).

Local and place based communities are now often the sites in which multinational and other types of project development (and failure) become contested (Calvano, 2008). In the absence of formal contracts, there is no tangible, legally [or ethically](#) defined obligation to a community despite the establishment of a social licence to operate. As a result, economically and psychologically, many of the true costs of the closure and the breaking of the community-corporate relationship are borne by the community (McNulty, 1987). This inadequate calculation of the true costs of mining investment and closure reflects the power differentials between corporate and community stakeholders, with the former having more control and influence, more options, and more resources to set the conditions with which they engage in, and retreat from CSR activities (Cheshire, 2010; Kleinrichert, 2008; Reed & Reed, 2009). Establishing residential mining communities, or any other place based initiative which relies on the establishment of a social licences to operate, reflects a ‘grey area’ of obligation definition for corporations and challenges current conceptualisations of corporate responsibility and accountability to non-contractual stakeholders. [It invokes a diffuse set of rights not so easily defined or defended as the ethical and legal rights bound in formal contracts and permissions.](#) As Cheshire

(2010) suggests it can even be considered an intervention which redefines the role of governance and the state.

Understanding Impacts in a Declining Rural Australia: The Politics of Hope and Mistrust

Over the past few decades many rural and remote areas of Australia have faced a 'rural decline' due to factors such as a changing climate and increased drought, an ageing farming population, falling export prices and the restructuring of more innovative (and often commercial scale) farming industries in many areas where traditional cropping and grazing are no longer financially viable (e.g., Lawrence & Gray, 2000). Compounding the grave problems of environmental fragility across much of rural Australia, is a general shift towards neoliberal governance where the support for rural communities has strongly diminished (Cheshire, 2006; Cocklin & Dibden, 2005). Although experienced differently across rural Australia, the net effect has been one of reduced income and employment opportunities, a loss of services, and a range of other social and economic impacts to the regions (Hugo, 2005).

Altered aspirations

RNO gained traction and a social licence to operate based on the hope instilled in the community [regarding what this development](#) would bring to the region for the next 20-30 years. This hope was not about community greed, but raising the standard of living and income generation in the community to that which is experienced and expected by the rest of (urban) WA. For example, the establishment phase of the RNO doubled the income levels of the Shire (Buckley & Stehlik, 2008), even though income levels still remained below the average of the state (ABS, 2008b, 2008c). The hope attached to large-scale and long-term mining development such as that represented by RNO, particularly economic and social stability for the communities,

and the promise of employment for the younger generation of residents involved is significant. In fact, some researchers propose that trust in business-community relationships is developed and characterised by such hope, optimism and expectation (White-Cooper et al, 2009).

RRA participants identified positive impacts of the mine including a significant population increase, maintenance and attraction of younger people (back) to the region, higher incomes and greater cash flow in the community, infrastructure improvements, social and recreational activities enhanced, and business opportunities. This reflects what is termed the multiplier effect of mining investments (McNulty, 1987). Both short and long-term residents identified being 'more conscious' of lifestyle choices available to them as a result of the opening of the mine.

Far from being simply a patronage model where the company provides funds for activities and infrastructures for the region (Cheshire, 2010), the establishment of the RNO reflected a deeper engagement with the self-determining aspects of regional development, and empowerment to create opportunities for a brighter future for the Shire as a result of the social contracts established with the mining company. We reflect on this as an 'altered aspirational' dimension to individual and the community development as a result of these social contracts. For example, before the opening of RNO, in order to prepare for the expected influx of new employees and their families, business initiatives in the Region were actively encouraged. The company financially supported the 'start-up' of a number of businesses in order to provide local goods and services for large contractors from outside the Region, and the expanding residential mining community (BHP Billiton, 2009c; Burrell, 2009; Department of Industry, Tourism and Resources, 2006) and it also attracted a number of other entrepreneurs to establish businesses in both Hopetoun and Ravensthorpe townships.

There were a range of social and economic impacts associated with this change in aspiration and expectation. There were direct financial and economic considerations for families and businesses, and at a regional level losing this aspirational potential was reason enough for some to leave the community, with others expressing concern that the pre-mine population may also decline. The out-migration of younger people, who were staying for the opportunities afforded by the mine, as well as the loss of small business operators, was seen to be directly linked to the now reduced opportunities in the Shire.

Variations also existed in the impacts and issues for Ravensthorpe, Hopetoun and Jerdacutup townships. Hopetoun and Ravensthorpe businesses; people employed as contract workers by RNO or BHP Billiton; school children; homeowners; and people directly employed by RNO were all identified by survey participants as being significantly impacted groups (Browne et al, 2009). Hopetoun businesses were seen as significantly affected by the closure of the RNO, as it was in this area that businesses were particularly encouraged in order to service the increasing residential population in that town (BHP Billiton, 2009c). Other issues raised specific to Hopetoun were: a glut of newly vacant housing impacting the housing market and equity in housing; lack of childcare; loss of community vitality; and loss of sporting groups and other community associations due to population decline. Ravensthorpe businesses, while identified as bearing some of the impact, were considered less impacted than Hopetoun businesses. A number of respondents noted the impact on housing prices and infrastructure in the region, with homeowners being identified as one of the most affected groups within the Shire.

The economic impact on the contractors and small to medium enterprise businesses had a resultant impact on the decline of infrastructure, services and social

services in the region. There was a particularly strong concern expressed during the study regarding the future of health services, with the only doctor leaving town post-closure, and the single pharmacist in Ravensthorpe also considering closing his business. This concern for a future lack of health care services was exacerbated by the large distances between the Shire and other major regional centres that have health care services (with the nearest medical treatment 1.5 - 2.5 hours away in Esperance or Albany).

The communication of certainty in the establishment of social licences

It was reported by participants that in its initial negotiations with the community the mines lifespan in the region was communicated with absolute certainty, creating psychological contracts based on the longevity of the relationship that it would have with that community. They did not communicate their expert knowledge of the known and recorded volatility of the resource markets (MMSD, 2002), particularly nickel; they also did not communicate the necessarily experimental nature of the mining operation and processing methods; and nor did they communicate that there was any likelihood that RNO would suspend operations at any early stage. The certainty in this long-term relationship with RNO, and the social/cultural/financial investments of people in the community based on this certainty is reflected in these comments by a local businessman [during his interview](#): BHP said 'we will be here for 25 years'. They didn't say 'there is a possibility we might not be here for 25 years'. They sold the message 'commit because we are committed'.

Cheshire (2010) has cautioned how current governance modes of CSR in mining can foster dependency and belief that the mine will always be there to provide. While this is certainly true in many cases it could also be argued that these business-in-community partnerships also trade on the sense of dependency and certainty in the

role that they will provide in short term and long term governance of the region in order to establish the atmosphere that enables the social licence to operate. Such social licences also trade on the myopia of risk and the generalised difficulty of people to accurately predict things around them, and make accurate risk assessments and judgements of the future. That is, the communication of certainty of the longevity of the mine possibly compounded the inexperience of the community in these sorts of negotiations, and gave them an illusion of security of the social contract with the company. From a risk assessment approach accounting for the certainty of failure involves planning for various types of impact from various types of risk, including the possibility of sudden and planned for closure, and a provision of mechanisms to ensure accountability and responsibility at various scales of governance (Flyvbjerg et al, 2003). However, not all partners of a social licence are party to this type of sophisticated risk based and planning knowledge.

Predictability and consistency is generally seen to be a factor that reduces perceived levels of threat, and results in a greater sense of safety about another's behaviour (Vodicka, 2006). The majority of respondents (80%) in the RRA indicated that the RNO was consistent in its behaviour and created a sense of reliability about its operation across the lifespan of its investment in the Region. This consistency and commitment, and the communication of certainty, explains the trust and belief people had in the time frames given to them and how it was not generally perceived as a 'threat' that the mine might not have a long life. The majority of those involved in our research in the region believed, or strongly believed the time frames that they understood to be promoted by RNO (Browne et al, 2009). There was the perception of a mutual agreement between the community and the company of the time frames of the mines operation (Rousseau, 1998).

Reflecting on the nature of the relationship with RNO since the announcement of the mine's closure, [one participant in their interview said](#): "We had been courted by BHP for years, for it to then become like a quick one night stand". Another participant [at the farmers' forum](#) described the influence that the company has had on the community as similar to: "...the ripple effect of being on a water bed, and a big giant comes and sits on the bed with you, and then it sits there for a little while and things settle down, until the giant just quickly stands up and leaves and the bed moves violently again".

Another participant described what occurred as "a loss of expectation". However, research has consistently demonstrated that a violation of a psychological contract is very different from just a set an unmet expectations (Rousseau, 1998). Breaking psychological contracts provokes a much more serious and intense set of (negative) responses than just unmet expectation as there was a greater reliance on the losses that were felt due to the unfulfilled contract terms (Rousseau, see also Robinson & Rousseau, 1994; Robinson et al, 1994; Rousseau, 1995). The unfulfilled contract terms in the case of RNO, was that the length of the BHPs operation of the mine reduced to 9 months compared with the 20-30 years agreed to within their social licence to operate [and cited as 21 years only three months before its closure \(BHP Billiton 2008b\)](#). The impacts for the community are related to the loss of the ability to capitalise on the social, environmental and financial investments [made by individuals, families, businesses, the community and various levels of government to secure a more stable regional future based on this perceived agreement](#).

Although the company demonstrated certainty, predictability and consistency in its communication strategies, [interview](#) participants reflected upon the difficulty of open and transparent communication with RNO across its lifespan. This perceived

lack of open and transparent communication became a (negative) feature of the communication of the announcement of the mine's closure. Many participants called for the need for earlier, clearer and more honest communication to the workers, businesses and the community about plans for the RNO operation and suspension.

Trust is embedded in the unspoken assumptions that underpin normal communication: that a speaker is being truthful, sincere, genuine, and appropriate in what they say (Reynolds & Yuthas, 2008). [As previously highlighted these assumptions](#) were reinforced by the consistency of the corporate message that the mine would be there for 25 years. The establishment of the RNO marked the first time that many in the community had negotiated a social licence as part of such a large investment. On reflection of the process many participants in the RRA identified that they felt that they were without the social and financial capital to negotiate the CSR initiative to their benefit in the same degree that RNO could negotiate. This involved both knowledge of the right sorts of questions to ask, belief in the consistent messages that were coming regarding the life time of the mine, and also the inability to pay for legal advice that matched that of the RNO. This echoes reflections by Flyvbjerg and others whose research focuses on the 'mega-project paradox' and explores examples of the increasing underperformance of largely urban infrastructure projects to deal with increasingly complex human needs, and the miscalculated and unintended economic, social and environmental costs of such projects (e.g., Altshuler & Luberoft, 2003; Brousseau, 2008; Flyvbjerg et al., 2003; Flyvbjerg, 2005; Miller and Lessard, 2000; Priemus, Flyvbjerg & van Wee, 2008; van Marrewijk et al., 2008).

Although obviously there are different experiences and impacts between urban and rural developments, as a theoretical parallel, the mega-projects paradox literature touches on the idea of a 'politics of mistrust'. This politics of mistrust is where the

history of failure of project development results in community and non-contractual stakeholder scepticism regarding large scale infrastructure projects (Flyvbjerg et al, 2003)⁵. The illusion of consent created when establishing a social license to operate also applies to the withdrawal of this consent by the community, when the true nature of the license (and lack of responsibility and reciprocity) is exposed and communities increasingly try to redefine the license and the boundaries of operation of the current and future companies. For example, although there was not strong support for BHP Billiton re-opening the RNO, there was strong support in the community for other mining companies (preferably junior mining companies) re-establishing the mine and investing in other mining ventures in the region. There was a withdrawal of the consent for the social licence to operate with BHP Billiton and a redefinition of the boundaries of consent that would be granted in the future when considering the possibility of other mining ventures.

While in retrospect, it could be seen that there were some elements of mistrust in sections of the community during the start-up and construction phase, the strength of the 'politics of hope' overcame this mistrust at a community level. The development of mistrust after the mine was mothballed reflects a situation where communities begin to understand that in their communication in or with corporations, the politics of trust that underpin most other rational communications cannot be taken for granted (Reynolds & Yuthas, 2008). This is compounded by the realisation that there is a political inequity underpinning these psychological contracts, and that a lack of community access to decision making processes results in the unequal distribution

⁵ Flyvbjerg, Bruzelius and Rothengatter (2003) describe in great detail alternative ways of dealing with risks involved with resource development. There are 'choices' even when there appears to be none available—choices of transparency and effective communication, choices regarding levels of responsibility and accountability. Sensibly, they suggest that these choices provide much better corporate strategies for companies involved in such large resource developments (Flyvbjerg et al, 2003) than the negative publicity received when engaged in corporate practices such as that observed in the case study example.

of risks, costs, and benefits (Crouch, 2004; Crouch & Streeck, 2006; Flyvbjerg et al, 2003; Reed & Reed, 2009; Reynolds and Yuthas, 2008). Such mistrust developed over time which will become obvious in the next section exploring the myths around environmental management that emerged after the mine was suspended on January 2009.

Understanding place based impacts as environmental change: Solastalgia, risks and myths

The natural environment is considered a major attractor of, and valuable asset to, the region by local residents (Stehlik et al, 2008) and issues related to the environment remain of importance to the Shire (Browne et al, 2009). A range of environmental impacts were identified as a result of the mine closure, and these included both positive and negative impacts resulting from population decline and less financial investment in the region. An important issue is the degree of environmental change in the Shire as a result of the mine such as increased pressure on a fragile environment due to an increased population and an increased international focus on the UNESCO biosphere. A number of respondents discussed potential positive environmental impacts from reduced mine activity such as less stress on the environment and beaches due to a reduced population. A significant concern for some in the region was the effectiveness of the ongoing environmental management of the 'mothballed' site, which sits amongst national parks and close to the UNESCO listed biodiversity hotspot.

Issues of environmental change intersect with the discussion of psychological contracts and non-contractual investments in this case study. The social and environmental investments and sacrifices made in establishing a psychological contract with a mine with a projected life of 25 years had a negative outcome,

particularly for the direct fence line neighbour of the mine the farming community of Jerdacuttup. It was a consistent theme in the study, particularly for the people in Jerdacuttup, that the mine decimated much of Bandalup Hill (see figure 1), a major landscape feature for the surrounding farms, from which the ore was being mined. With many local farmers having sold all or part of their farms for the mine, this environmental legacy left people remembering the physical and social landscape ‘the way that it used to be’.

In the face of profound environmental change people can feel great distress and a nostalgia for ‘the way things were’, even though they may still be in the same physical location or home environment. Albrecht uses the term ‘solastalgia’ – “the loss of or inability to derive solace from, the present state of one’s home environment” (Albrecht, 2006, p. 35; Albrecht et al, 2007) to characterise this feeling. In the case of the Jerdacuttup community there has been both a loss of the natural environment (and the historic relationship with the natural environment of these farmers) and a loss of relationships with local people who historically have been a part of that environment. In the context of the suspension of the mine only 9 months after it had opened feelings reflecting this concept of solastalgia were high in the fence line farming community.

It is often forgotten that a mine has a very physical presence, which can have many interpretations; it has physical “landscapes of a particular kind; ones that the best practices of closure will find hard to erase. Mines are not merely extracting minerals, but are also marking time and space with their appearances” (Halvaksz, 2008, p. 21). The Shire is marked with the many failed experimental mines which dot the landscape, and previously closed down sites which are remembered in the visible scars of the tailings mounds left behind on the landscape (see Brierley, 2010; Collier

& Scott, 2009). Perhaps another stagnant mine, as the social and economic futures of the region remained uncertain at the time of the RRA, was a stark physical reminder of the physical and social sacrifice that was made in granting this social licence to operate to the RNO.

As a result of the closure, issues (as well as some confusion regarding legal responsibilities) of the environmental rehabilitation of the RNO site gathered increasing attention in the media (e.g., Banks, 2009) as well as in the broader community. Identified as a particular concern at the farmers' forum, and in a number of other interviews, the RRA study identified that the local environment around the mine site was viewed by the community as a potential physical health risk, and a source of stress and concern. There was concern regarding the care and maintenance of the site after it had been mothballed. There were also substantial 'myths' operating in the community regarding potential asbestos fibres (white mineral fibres) in the ore body and about the health risks and long-term issues related to managing dust drift (which was thought to potentially contain these fibres) from the mine into their farming community and beyond into Ravensthorpe township.

Whether there is truth to the risks identified by the community regarding the long-term impact on quality of life, livelihoods and health at the closure of this mine is not the point. These pervasive community concerns post-closure speak to issues of inadequate communication with the community, particularly regarding environmental obligation and maintenance post-closure. Therefore, whether true or not the myth embodies a truth about the community's suspicions of environmental risks (e.g., Dake, 1992) based on the unfulfilled social licence terms and the development of mistrust of the company post-closure.

Mining and deindustrialisation should be seen as shaping the landscape and social histories of place (Rollwagen, 2007; Jones, 2008; Whitebread-Abrutat, 2004). As Halvaksz (2008) suggests where mining is part of the social fabric of the town, it becomes a part of the landscapes social history. Although a mining company has left, the mining or the prospect for mining still continues as part of the potential regional identity and part of the future mix for a more stable economy (Halvaksz, 2008). Similarly to Halvaksz's (2008) reflections of mining closure in Papua New Guinea, due to the severity of the impact of the mine on Bandalup Hill and the uncertainty at the time of the RRA as to the future of the mine the

“...closure neither finalizes relations between all resident populations and mined spaces, nor does it end the desires instilled during the production. Recovered, replanted, and refilled, mines remain important sites for imaginative engagement, for contestation, and for multiple understandings of their creation and dissolution long after the company has left” (Halvaksz, 2008, p. 29).

Putting the RNO in ‘mothballs’ was a significant concern and stress for the community. As has been mentioned elsewhere, eventually a decision was announced that BHP Billiton was to sell the RNO (Chambers, 2009b). However this was not before a culture of significant mistrust developed towards the company, the scale of the sacrifices that members of the community had made for this social licence with the company had been mourned for, and significant fears regarding the environmental, social, and economic future of the region were experienced uncertainly for nearly a year.

Conclusion

This case study of the mothballing of RNO in Western Australia shows how companies communicate project certainty to gain traction for a social licence to operate in a community, and that the impacts of breaking that licence are significantly

felt by, and under-compensated for, those with whom that individual or group contract is established. Although this is particularly salient in this example of residential mining, these lessons also have applicability in other settings where social licences and other CSR initiatives are implemented. From a position of trust and belief in the reciprocity of the social contract, a mistrust often develops between corporations and communities in projects where there are multiple types of contractual and non-contractual stakeholders particularly when contract terms are not fulfilled. As much as this is about the access to differential scales of resources, access to decision making processes and access to financial power, it is also about decisions regarding corporate-community communication [and engagement](#). This politics of mistrust occurs frequently in business-in-community approaches. It is developed in this example in a remote rural Australian community but is just as likely in an impoverished urban neighbourhood, or any community that has never before [negotiated](#) a social licence.

While planned closure gives lead time to discuss the legacies of the project to the region and community (e.g., Blackman et al., 2009), the costs of unplanned failure are little accounted for. This unjust aspect of social licences is often ignored in the business ethics literature (Reed & Reed, 2009). There should be a substantial reworking of the concepts of obligations, accountability and responsibility involved in social licence initiatives, as corporate social responsibility can easily lapse into corporate irresponsibility in the context of stakeholder engagement (Greenwood, 2007).

In rural Australia, the impacts of sudden closure go beyond the obvious economic impacts (McNulty, 1987) to a fundamental underwriting of hope and optimism for a more stable development trajectory for the region, and significant

environmental and social losses. It is here that the communication of certainty in these social licenses becomes irresponsible. The consistency and predictability of the communication with the RNO about the certainty of its timeframes of operations, led to a high level of trust in the company, and a diverse range of social, economic and environmental investments were made by the individuals and groups in the communities based on this perception of open communication, consistency of the message and trust.

Currently the mining industry is being encouraged to consider closure planning as a part of their core business, and to consider the ways that the social, environmental and economic outcomes of a community are bound to change after closure (ICMM, 2008). The planning of closure in a community should acknowledge that communities dependent on the mine for socio-economic development will have a broader set of risks and benefits from mine operation and closure than communities with a broader economic base who are less dependent on the longevity of the mines operation (ICMM, 2008). While the rhetoric in the mining industry reflects this need for planning, in practice, companies and governments find legitimacy for their actions by relying on the economic aspects of business decisions, with the intricate social and political implications banished from corporate discourse and effectively ignored, particularly in times of economic uncertainty (Judge & Dickson, 1987). Similarly, while planned for closure does feature regularly in mining industry literature, mechanisms for dealing with the impacts of unplanned closure irregularly feature.

What is needed is long term planning for uncertainty, with features of high trust democratic processes, and “hard-nosed considerations about risk and democratic accountability” (Flyvbjerg et al, 2003, p. 10). This is particularly significant in an era where CSR is becoming the practice norm, and communities who are engaged in the

‘boom times’ as partners, in definition as non-contractual stakeholders can be dispensed with in times of ‘bust’. What is also significant is that the past 30 years has shown that more than 75 % of mine closure is unplanned and that in times of economic instability the incidence of unplanned closure more than doubles (Laurence, 2006, 2011). In the face of sudden closure, non-contractual social, psychological, economic and environmental sacrifices and investments represent an unaccounted for cost from the failure of resource development. It is concerning that in a society increasingly defined by uncertainty and risks (environmental, social, political, economic) that these matters are not taken into account in project planning, and that adequate insurance for communities engaged in such social licences is not provided.

Acknowledgements. A sincere thank you: to the people of Ravensthorpe, Western Australia who generously gave up their time; for the helpful comments of the two reviewers and members of the LEC writing group; the Alcoa Foundation Conservation and Sustainability Fellowship Program; and my uncle and aunty whose house (in their absence) often became my writing retreat for the various iterations of this article.

References

- ABS., 2008a. Regional population growth 2006-2007 (ABS 3218.0). Canberra, Australia: Commonwealth of Australia.
- ABS., 2008b. National regional profile: Ravensthorpe (S) (Local Government Area). Canberra, Australia: Commonwealth of Australia.
- ABS., 2008c. National regional profile: Western Australia. Canberra, Australia: Commonwealth of Australia.
- ABS., 2009. Regional population growth 2007-2008 (ABS 3218.0). Canberra, Australia: Commonwealth of Australia.
- Albrecht, G., 2006. Solastalgia: Environmental damage has made it possible to be homesick without leaving home. *Alternatives Journal*, 32, 34-36.
- Albrecht, G. Sartore, G-M. Connor, L. Higginbotham, N. Freeman, S. Kelly, B. Stain, H. Tonna, A. and Pollard, G., 2007. Solastalgia: The distress caused by environmental change. *Australasian Psychiatry*, 15, S95-S98.
- Australian Mining., 2006. Ravensthorpe mine opens. [online]. Available from: <http://www.miningaustralia.com.au/Article/Ravensthorpe-mine-opens/173086.aspx>
- ANZMEC - Australian and New Zealand Minerals and Energy Council and Minerals Council of Australia, 2000. Strategic framework for mine closure. [online].

- Canberra, Australia: ANZMEC. Available from: http://www.nswmin.com.au/_data/assets/pdf_file/0011/2162/ANZMEC-MCA_Strategic_Framework_for_Mine_Closure.pdf
- Altshuler, A., and Luberoff, D., 2003. Mega-projects: The changing politics of urban investment. Washington: Brookings Institution Press
- Banks, A., 2009. Ravensthorpe closure 'leaves scar on land'. The West Australian, 22nd April, page 11.
- BHP Billiton., 2004a. BHP Billiton commits to residential workforce for Ravensthorpe Nickel Project. Available from: <http://www.bhpbilliton.com/bb/investorsMedia/news/2004/bhpBillitonCommitsToResidentialWorkforceForRavensthorpeNickelProject.jsp>
- BHP Billiton., 2004b. The Ravensthorpe Nickel Project and the Yabulu Refinery Expansion: Overview. Available from: <http://www.bhpbilliton.com/bbContentRepository/News/RelatedContent/RYIOverviewPaper.pdf>
- BHP Billiton., 2005. Relationship building is key to managing socio-economic impacts of the Ravensthorpe Nickel Project. Socio-Economic Case Study [online]. BHP Billiton Sustainability Report 2005. Available from: <http://sustainability.bhpbilliton.com/2005/repository/socioEconomic/caseStudies/caseStudies39.asp>
- BHP Billiton., 2008b. Australian Site Tour Ravensthorpe Nickel Operation. Available from: <http://www.bhpbilliton.com/bbContentRepository/docs/ravensthorpeSitePresentation08.pdf>
- BHP Billiton., 2008a. Resourcing the future: Annual report 2008. Melbourne, Australia: BHP Billiton.
- BHP Billiton., 2009a, BHP Billiton Results for the half-year ended 31 December 2008. [online] Melbourne, Australia: BHP Billiton. Available from: <http://www.bhpbilliton.com/bb/investorsMedia/news/2009/bhpBillitonResultsForTheHalfYearEnded31December2008.jsp>
- BHP Billiton., 2009b. Changes to BHP Billiton's nickel business. Available from: <http://www.mining-journal.com/company-news/bhp-billiton/changes-to-bhp-billitons-nickel-business>.
- BHP Billiton., 2009c. Support for Ravensthorpe employees and communities. [online] Melbourne, Australia: BHP Billiton. Available from: <http://www.bhpbilliton.com/bb/investorsMedia/news/2009/supportForRavensthorpeEmployeesAndCommunities.jsp>
- Blackman, K.G.A. Burne, N. Mitchell, I.C, Lacy, H.W.B. and Mackenzie, S., (2009). Progressive closure planning at the Magellan Mine – providing some certainty in uncertain times: A case study. In: A.B. Fourie and M. Tibbett, eds. Mine closure 2009. Proceedings on the Fourth International Conference on Mine Closure. Perth, Australia: Australian Centre for Geomechanics, (pp. 93-100).
- Brierley, G.J, 2010. Landscape memory: The imprint of the past on contemporary landscape forms and processes. AREA, 42, 76-85.
- Brousseau É., 2008. Contracts: From bilateral sets of incentives to the multi-level governance of relations. In: É. Brousseau and J-M. Glachant, eds. New institutional economics: A guidebook. Cambridge: Cambridge University Press, pp 37-66.
- Browne, A.L. Buckley, A. and Stehlik, D. 2009, A rapid rural appraisal of the closure of the Ravensthorpe Nickel Operation: A focus on the social,

- environmental and economic impacts for Ravensthorpe, Hopetoun and Jerdacuttup, Western Australia [online]. Perth, Australia: Research Centre for Stronger Communities, Curtin University. Available from: http://strongercommunities.curtin.edu.au/workingpapers_list.htm
- Buckley, A., 2009. Minerals futures discussion paper: Neighbour of choice partnership model. Perth, Australia: Research Centre for Stronger Communities, Curtin University. Contact strongercommunities@curtin.edu.au for copies of report
- Buckley, A. and Stehlik, D., 2008. Technical report: Social Impact Assessment of Mount Cattlin project in Ravensthorpe Shire, Western Australia. Perth, Australia: Research Centre for Stronger Communities, Curtin University. Contact strongercommunities@curtin.edu.au for copies of report
- Burke, E.M., 1999. Corporate community relations: The principle of the neighbour of choice. Wesport CT: Praeger Publishers.
- Burrell, A., 2009. The town that BHP killed. The Australian, 18-19th January, pp. 22 - 23
- Calvano, L., 2008. Multinational corporations and local communities: A critical analysis of conflict. Journal of Business Ethics, 82, 793-805.
- Chamber of Minerals and Energy, 2005. Fly in/Fly out: A sustainability perspective. A discussion of the triple bottom line impact of fly in/fly out operations in Western Australia's resource sector [online]. Western Australia: Chamber of Minerals and Energy. Available from: <http://www.cmewa.com.au/UserFiles/File/Publications%20-%20Human%20Resources/FIFO%20Report.pdf>
- Chambers, M., 2009a. Analysts chop BHP forecast. The Australian, 20th January. Available from: <http://www.theaustralian.news.com.au/business/story/0,,24934748-36418,00.html>
- Chambers, M., 2009b. Canada's First Quantum wins bid to revive Ravensthorpe nickel mine. The Australian, 10th December. Available from: <http://www.theaustralian.com.au/business/canadas-first-quantum-wins-bid-to-revive-ravensthorpe-nickel-mine/story-e6frg8zx-1225808811378>
- Cheshire, L., 2006. Governing rural development: Discourses and practices of self-help in Australian rural policy. UK: Ashgate.
- Cheshire, L., 2010. A corporate responsibility? The constitution of fly-in, fly-out mining companies as governance partners in remote, mine-affected localities. Journal of Rural Studies, 26, 12-20.
- CHOCILCO -Chilean Copper Commission., 2002. Research on mine closure policy, [online report 44]. Mining, Minerals and Sustainable Development Project of the International Institute for Environment and Development, and the World Business Council for Sustainable Development. Available from: <http://www.iied.org/pubs/pdfs/G00541.pdf>
- Clark, G.L. and Wrigley, N., 1997. Exit, the firm and sunk costs: Reconceptualizing the corporate geography of disinvestment and plant closure. Progress in Human Geography, 21 (3), 338-358.
- Cloke, P. Milbourne, P. and Thomas, C., 1996. From wasteland to wonderland: Opencast mining, regeneration and the English National Forest. Geoforum, 27, 159-174.
- J. Cocklin and C. Dibden, (eds)., 2005. Sustainability and change and rural Australia. Sydney, Australia: University of New South Wales.

- Collier, M.J. and Scott, M., 2009. Conflicting rationalities, knowledge and values in scarred landscapes. *Journal of Rural Studies*, 25, 267-277
- Cowe, R. and Hopkins, M., 2008. The nature of the business case for CSR. In: J. Burchell, ed. *The corporate social responsibility reader*. UK: Routledge, pp 101-110
- Crouch, C. 2004, *Post-democracy*. Cambridge: Polity Press
- C. Crouch and W. Streeck, eds. 2006. *The diversity of democracy: Corporatism, social order and political conflict*. UK: Edward Elgar.
- Dake, K., 1992. Myths of nature: culture and the social construction of risk. *Journal of Social Issues*, 48, 21-27
- Davison, G., 2005. Rural sustainability in historical perspective. In: C. Cocklin and J. Dibden, eds. *Sustainability and change in rural Australia* Sydney, Australia: University of New South Wales, pp 38-55.
- Department of Industry, Tourism and Resources., 2006. *Leading Practice Sustainable Development Program for the Mining Industry: Community engagement and development*. Canberra: Commonwealth of Australia.
- Department of Industry and Resources., 2008. *Prospect: Western Australia's International Resources Development Magazine*. [online June-August]. Available from: [http://www.dmp.wa.gov.au/documents/Prospect_JUN08\(1\).pdf](http://www.dmp.wa.gov.au/documents/Prospect_JUN08(1).pdf)
- Dunn, T. 1994. *Rapid Rural Appraisal: A description of the methodology and its application in teaching and research at Charles Sturt University*. Rural Society, 4 [online]. Available from: <http://www.csu.edu.au/research/csr/ruralsoc/v4n3p30.htm>
- Flyvbjerg, B. Bruzelius, N. and Rothengatter, W., 2003. *Megaprojects and risk: An anatomy of ambition*. Cambridge: Cambridge University Press.
- Flyvbjerg, B., 2005. Machiavellian megaprojects. *Antipode*, 37, 18-22.
- Friedman, M., 2008. The social responsibility of business is to increase its profits. In: J. Burchell, ed. *The corporate social responsibility reader*. UK: Routledge, pp 84-89
- Global Mining, 2002. *Large mines and local communities: Forging partnerships, building sustainability* [online]. Washington: World Bank and International Finance Corporation. Available from: <http://siteresources.worldbank.org/INTOGMC/Resources/largemineslocalcommunities.pdf>
- Government of Western Australia., 2009. *Hopetoun-Ravensthorpe Tourism Asset Assessment*. Industry Development. Western Australia: Tourism WA, Government of Western Australia.
- Greenwood, M., 2007. Stakeholder engagement: Beyond the myth of corporate responsibility. *Journal of Business Ethics*, 374, 315-327
- Halvaksz, J.A., 2008. Whose closure? Appearances, temporality, and mineral extraction in Papua New Guinea. *Journal of the Royal Anthropological Institute*, 14, 21-37.
- Haney, M. and Shkaratan, M., 2003. *Mine closure and its impact on the community: Five years after mine closure in Romania, Russia and Ukraine*. [Policy Research Working Paper 3083]. Washington: World Bank, Infrastructure and Energy Services Department.
- Haslam-McKenzie, F. Phillips, R. Rowley, S. Brereton, D. and Birdsall-Jones, C., 2009. *Housing market dynamics in resource boom towns* [AHURI Final

- Report No. 135]. Western Australia: Australian Housing and Urban Research Institute- AHURI.
- Hugo, G., 2005. The state of rural populations. In: C. Cocklin and J. Dibden, eds. *Sustainability and change in rural Australia*. Sydney: University of New South Wales, pp 56-79.
- ICMM - International Council for Mining and Minerals., 2008. *Planning for integrated mine closure: Toolkit*. London: ICMM.
- James, S., 2009. Mine jobs lost worldwide as recession hits metals [online]. 29th January 2009. UK: Reuters Press. Available from: <http://uk.reuters.com/article/idUKN2931657220090129?pageNumber=1>
- Jones, H., 2008. The Eden project: Synopsis around sustainable enterprise. *Journal of Corporate Citizenship*, 30, 133-137.
- Judge, D. and Dickson, T., 1987. The politics of closure. In: T. Dickson and D. Judge, eds. *The politics of industrial closure*. UK: Macmillan Press, pp 165-186.
- Kleinrichert, D., 2008. Ethics, power and communities: Corporate Social Responsibility revisited. *Journal of Business Ethics*, 78, 475-485.
- Klinger, P., 2009. BHP mine call puts public cash at risk. *The West Australian*, 20th January.
- Kolstad, I., 2007. Why firms should not always maximise profits. *Journal of Business Ethics*, 76, 137-145.
- Laurence, D.C., 2006. Why do mines close? In: A.B. Fourie and M. Tibbett, eds. *Mine closure 2009. Proceedings on the Fourth International Conference on Mine Closure*. Perth, Australia: Australian Centre for Geomechanics, (pp. 83-94).
- Laurence, D.C., 2009. Premature mine closures and the global financial crisis - Have we learnt anything from the recent past? In: A.B. Fourie and M. Tibbett, eds. *Mine closure 2009. Proceedings on the Fourth International Conference on Mine Closure*. Perth, Australia: Australian Centre for Geomechanics.
- Laurence, D., 2011. Establishing a sustainable mining operation: an overview. *Journal of Cleaner Production*, 19, 278-284
- Lawrence, G. and Gray, I., 2000. The myths of modern agriculture: Australian rural production in the 21st Century. In: B. Pritchard and P. McManus, eds. *Land of discontent: The dynamics of change in rural and regional Australia*. NSW, Australia: University of New South Wales Press Ltd., pp. 33-51.
- Lonzano, J.M. Albareda, L. Ysa, T. Rosche,r H. and Marcuccio, M., 2008. *Governments and corporate social responsibility: Public policies beyond regulation and voluntary compliance*. UK: Palgrave Macmillan.
- Mason, M., and O'Mahony, J., 2008. Post-traditional corporate governance. *Journal of Corporate Citizenship*, 31, 1-14.
- Mayes, R. Haslam-McKenzie, F., 2008. *The Shire of Ravensthorpe: How women experience a rural community in transition* [online Working Paper Issue 13]. Perth, Western Australia: Research Centre for Stronger Communities. Available from: http://strongercommunities.curtin.edu.au/workingpapers_list.htm
- McCracken, J.A. Pretty, J.N. and Conway, G.R., 1988. *An introduction to Rapid Rural Appraisal for agricultural development*. UK: International Institute for Environment and Development.
- McNulty, D., 1987. Local dimensions of closure. In: T. Dickson and D. Judge, eds. *The politics of industrial closure*. UK: Macmillan Press, pp 35-69.

- Miller, R. and Lessard, D.R., 2000. The strategic management of large engineering projects: Shaping risks, institutions and governance. Cambridge, Mass: MIT Press.
- Mitchell, R.K. Agle, B.R. and Wood, D.J., 1997. Towards a theory of stakeholder identification and salience: Defining the principle of who and what really counts. *Academy of Management Review*, 22, 853-886.
- MMSD - Mining, Minerals and Sustainable Development., 2002. Mining for the future. Appendix B: Mine closure working paper [online Report No. 34]. UK: International Institute for Environment and Development. Available from: http://www.unr.edu/mines/mlc/presentations_pub/Pub_LVW/34_mftf-b.pdf
- Pellizzoni, L. and Ylönen, M., 2008. Responsibility in uncertain times: An institutional perspective on precaution. *Global Environmental Politics*, 8, 51-73.
- Priemus, H. Flyvbjerg, B. and van Wee, B., 2008. Introduction: Scope of the book. In: H. Priemus, B. Flyvbjerg and B. van Wee, eds. *Decision-making on mega-projects: Cost-benefit analysis, planning and innovation*. UK: Edward Elgar, pp 1-20.
- Ravensthorpe Shire, 2009. Mining [online]. Available from: <http://www.ravensthorpe.wa.gov.au/mining>
- Reed, A.M. and Reed, D., 2009. Partnerships for development: Four models of business involvement. *Journal of Business Ethics*, 90, 3-37.
- Reynolds, M.A. and Yuthas, K., 2008. Moral discourse and corporate social responsibility reporting. *Journal of Business Ethics*, 78, 47-64.
- Robinson, S.L. and Rousseau, D.M., 1994. Violating the psychological contract: Not the exception but the norm. *Journal of Organizational Behavior*, 15, 245-259.
- Robinson, S.L. Kraatz, M.S. and Rousseau, D.M., 1994. Changing obligations and the psychological contract: A longitudinal study. *Academy of Management Journal*, 37, 137-152.
- Rollwagen, K., 2007. When ghosts hovered: Community and crisis in a company town, Britannia Beach, British Columbia, 1957-1965. *Urban History Review* 35, 25-36.
- Rousseau, D.M., 1995. *Psychological contracts in organizations: Understanding written and unwritten agreements*. Thousand Oaks, C.A: Sage.
- Rousseau, D.M., 1998. The 'problem' of the psychological contract considered. *Journal of Organizational Behavior*, 19, 665-671.
- Stehlik, D., 2005. Partnering industry to build stronger communities. In: T. Stehlik and P. Carden, eds. *Beyond Communities of Practice*. Flaxley, Qld: Post Pressed, pp. 229-244.
- Stehlik, D. Buckley, A. Williams, C. Majer, J. and Harris, R., 2008. *Towards convergence: Technical report on biodiversity and resource use stakeholder values for the Ravensthorpe Range*. [Final Report Project 04SC1-06i]. Perth, Western Australia: Research Centre for Stronger Communities, Curtin University. Contact strongercommunities@curtin.edu.au for copies of report
- Storey, K., 2001. Fly-in fly-out and fly-over mining: Mining and regional development. *Australian Geographer*, 32 (2), 133-148.
- Tasker, S-J., 2009. BHP shelves Ravensthorpe, slashes 1800 jobs, *The Australian*, 21st January.
- UNEP -United Nations Environment Programme., 2005. *Mining for closure: Policies and guidelines for sustainable mining practice and closure of mines*. UNEP, UNDP, OSCE, NATO.

- United Nations Global Compact., 2007. Joining forces for change: Demonstrating innovation and impact through un-business partnerships. Geneva: United Nations, Geneva. Available from: <http://www.globalcompactsummit.org/docs/UNGC07-JoiningForcesForChange.pdf>
- Usui, M., 2006. Business-society interaction towards sustainable development – Corporate social responsibility: The road ahead. In: J.F. Green and W.B. Chambers, eds. The politics of participation in sustainable development governance. Tokyo: United Nations University Press, pp 62-89.
- van Marrewijk, A. Clegg, S.R. Pitsis, T.S. and Veenswijk, M., 2008. Managing public-private megaprojects: Paradoxes, complexity and project design. *International Journal of Project Management*, 26, 591-600.
- Vodicka, D., 2006. The four elements of trust. [online]. pp. 27-30. Available from: <http://www.plcWASHINGTON.org/trust/resources/4-elements-of-trust.pdf>. (Retrieved May 2009).
- Weyzig, F., 2009. Political and economic arguments for Corporate Social Responsibility: Analysis and a proposition regarding the CSR agenda. *Journal of Business Ethics*, 86, 417-428.
- Whitebread-Abrutat, P., 2004. A radical approach to post-mining regeneration – Case studies from Cornwall, U.K. Paper presented at Sustainable Post-Mining Land Management Conference, 4-6th November 2004, Kraków, Poland. Available from: <http://www.postmining.org/index.php?page=19>
- White-Cooper, S. Dawkins, N.U. Kamin, S.L. and Anderson, L.A., 2009. Community-institutional partnerships: Understanding trust among partners. *Health Education and Behavior*, 36, 34-347.
- World Bank Group's and International Finance Corporation Mining Department., 2002. It's not over when it's over: Mine closure around the world. Washington: International Finance Corporation.
- Yakovleva, N., 2005. Corporate social responsibility in the mining industries. UK: Ashgate
- Zammit, A., 2003, Development at risk: Rethinking UN-business partnerships [online]. Geneva: UNRISD. Available from: [http://www.unrisd.org/unrisd/website/document.nsf/\(httpPublications\)/43B9651A57149A14C1256E2400317557?OpenDocument](http://www.unrisd.org/unrisd/website/document.nsf/(httpPublications)/43B9651A57149A14C1256E2400317557?OpenDocument)

Figure 1. Map of Ravensthorpe-Hopetoun District in Western Australia

Copyright statement: Based upon the Ravensthorpe Hopetoun District map from <http://www.wildflowersravensthorpe.org.au/maps.html> (Original source).