Positioning Paper

A review of the contextual issues regarding housing market dynamics in resource boom towns

authored by

Fiona Haslam McKenzie, David Brereton, Christina Birdsall-Jones, Rhonda Phillips and Steven Rowley

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
CRA	Commonwealth Rent Assistance
CSHA	Commonwealth-State Housing Agreement
DIDO	drive-in, drive-out
FIFO	fly-in, fly-out

EXECUTIVE SUMMARY

This positioning paper provides a context for examining housing market dynamics in four Australian resource boom towns: Kalgoorlie and Karratha in Western Australia, and Emerald and Moranbah in Queensland. The impact of the resource boom on housing affordability is examined, as are its effects on a variety of other related socio-economic indicators in those towns, including the availability and appropriateness of housing, community development, social cohesion and exclusion.

Our research, supported by numerous reports (Haslam McKenzie 2006; Memmott et al. 2006; Wulff et al. 2005; Yates et al. 2006b), identifies a need for more affordable and appropriate housing in remote and regional communities. Resource boom towns in the Pilbara and Goldfield regions of Western Australia and the Bowen Basin region of Queensland have experienced recurring housing shortages and crises. The housing situation has had a negative impact upon these communities in a variety of ways and, in the case of Karratha, constitutes a community crisis. An enduring issue is the inability of the public and private sectors to attract and retain staff in resource boom towns whatever the occupation, but especially workers in the service sector. Business and community development is stymied by the ever-decreasing locally resident workforce, the result of the increasing lack of available and/or affordable housing. A range of skill sets for the resources industries are in short supply.

The nature and locations of mining operations, combined with the lack of available and affordable housing and associated industry cost structures, has led the resource sector to increasingly rely upon a long distance commuting workforce. The increase of fly-in, fly-out (FIFO) and drive-in, drive-out (DIDO) workers has led to a reduction in the permanently resident workforce. Gallegos (2005) argues that FIFO undermines sustainable community development.

The issue of housing interconnects with other economic, socio-cultural and environmental indicators, including health, education, the natural and built environment and social connectedness, which have important bearings on the quality of life and on the sustainability of communities. There is limited locally-specific data in the literature regarding measurable community housing outcomes including affordability, housing quality, appropriateness of housing, crowding, home-ownership rates, population turnover, the socio-economic characteristics of neighbourhood, the availability and quality of local services and the proximity of housing to employment in resource dominated communities (Hillier et al. 2002; Wulff et al. 2005).

The greatest affordability problems occur, not unexpectedly, among those on low incomes, such as social security recipients, unskilled migrant workers, and retail, hospitality and other service industry workers (Yates et al. 2006b). Combined with FIFO, this has resulted in a high turnover in population and subsequent lack of community cohesion. Evidence exists that a lack of affordable housing creates social and economic polarisations in remote areas (Bureau of Transport and Regional Economics 2006; Hillier et al. 2002; Marshall et al. 2003; Stafford Smith et al. 2003). Hillier et al. (2002: 20) demonstrated the links between housing and economic and social wellbeing in a regional Western Australian context: 'The inadequate supply of housing for purchase or rent not only drives up prices, but prevents key worker relocation and stymies investment in the area'.

1   INTRODUCTION

1.1   Background, project aims and scope

This research project responds to a question from the 2007 Australian Housing and Urban Institute (AHURI) research agenda and examines housing market dynamics in resource boom towns in Western Australia and Queensland, in particular, the impact of boom resource conditions on housing affordability and its effects on a variety of other related social indicators in those towns.

Numerous reports (Memmott et al. 2006; Taylor and Scambary 2005; Wulff et al. 2005) identify a need for more affordable housing for locals, resource industry workers and ancillary workers in towns experiencing mining booms. Increased housing demand exacerbates the critical issue of affordability for a wide range of residents. In Western Australia in particular, the pressure for housing in resource boom towns has had a significant impact on the availability of housing for Aboriginal people in the Pilbara and Goldfields regions.

Some mining communities experience median house prices greater than metropolitan markets. Housing prices and rents are driven to high levels and, combined with accommodation shortages, have been blamed for a variety of social and economic dysfunctions (Bureau of Transport and Regional Economics 2006; Haslam McKenzie 2006; Piper 2005). Further, the resource market is cyclical and dependent on international foreign affairs and markets. Many resource boom towns are mono-economies. State governments are therefore reluctant to invest in towns and mine camps. This is a classic problem of social needs conflicting with economic demands.

Housing is increasingly viewed by government and resource companies as not only an economic supply commodity, but an economic driver, as new development is stymied by a lack of a locally resident workforce. A range of skill sets for the resources industries are in short supply. An enduring issue is the inability to attract and retain staff in remote communities. This, combined with the nature and locations of mining operations and industry cost structures, leads to an increase in long distance commuting.

The aims of the current research project are to:

→ Provide a detailed analysis of the causal factors of the housing market dynamics in resource boom towns;

→ Determine whether or not there are resource boom towns which do not have a housing affordability crisis, or are experiencing less severe crisis compared to other towns, and investigate why that is the case;

→ Identify the flow-on effects of housing affordability issues in a community and the impacts on the socio-economic functionality of the community;

→ Identify the flow-on effects of housing affordability and the impacts on the socio-economic functionality of the Indigenous community in resource boom towns that have a significant Indigenous population living in the towns or its environs;

→ Assess the potential options for government and the private sector to ameliorate the housing affordability issues in resource boom towns, based on international examples and private/public partnerships;

→ Identify and evaluate how governments and resource companies have previously and are currently managing these issues.

The scope of the project is wide, researching as it does a variety of socio-economic factors in relation to housing market dynamics in resource boom towns. It involves looking at questions of public policy, economic markets and social issues. The methodology is therefore of a multidisciplinary nature. It will involve a comparative analysis of statistical data, anthropological data, interviews, relevant Australian and international literature, and field observation.

This project will contribute to housing and regional development policy by identifying the interrelationship between the labour market, housing affordability and the social sustainability of remote communities, in the context of the resource boom. It will do this by means of a case study approach utilising four research sites: the towns of Kalgoorlie and Karratha in Western Australia, and Emerald and Moranbah in Queensland. This approach will allow a detailed examination of each case, provide a diversity of contexts across the two key resource boom states and allow some comparison between cases.

The social and economic impacts of resource booms are far-reaching and vary according to a range of local factors. These factors include the nature and size of the housing market, availability of residential land for development, proximity to alternative housing and employment markets, and the housing policies of the public and private sectors. This project provides a framework for describing the key market dynamics in different contexts.

The study will also identify actions which mining companies, the private sector and government have taken, or could take, to ameliorate these shortages. This will lead to a broader analysis of the respective responsibilities of government and industry and appropriate linkages for coordinating action between the two sectors.

1.2   Policy relevance

The housing impacts of the resource boom on remote and rural centres have received little attention from researchers. Previous housing research studies in the areas of rural housing and regional development have either focused on broad analysis of housing data or on regional disadvantage and decline (Hillier et al. 2002; Houghton 1993; Marshall et al. 2003, 2004; Wulff et al. 2005). Broader regional and economic development studies have paid scant attention to housing issues (Hillier et al. 2002). Various reports have cited the importance of social capital, the provision of infrastructure, and the value of human resource skills in non-metropolitan labour markets (Bureau of Transport and Regional Economics 2003, 2005; Department of Transport and Regional Services 2003; Plowman et al. 2003), but few have linked these issues with the provision of adequate, appropriate or affordable housing.

The resource boom is a significant contributor to Australia's economy and there is reason to believe that the needs of the global economy will maintain the high demand for Australian resources into the future (ABARE 2007). Recent attention to housing affordability highlights the need to better understand and articulate the important contribution of housing supply and affordability to national and regional economic development and social wellbeing (Gleeson and Carmichael 2001).

This study provides an opportunity for a national perspective on the housing impacts of the boom and to reflect on the effectiveness of current policy approaches and the potential policy options to better manage the provision of housing infrastructure to maximise the regional social and economic benefits deriving from the growth in the resources sector.

This study will examine current policy approaches to managing the housing impacts in resource boom towns and identifies policy options to better manage the provision of

housing infrastructure that maximises the social and economic benefits deriving from the current resource boom. The study therefore makes an important contribution by addressing a highly topical and under-researched contemporary policy concern.

2 THE AUSTRALIAN HOUSING AND MINING CONTEXT

Housing policies and the activities of the public and private housing sectors, particularly in Western Australia and Queensland, are currently operating within the context of a major resource boom. Housing policy and housing market dynamics in this setting are closely related to the resource boom and therefore should not be viewed in isolation from each other. It is the nature of the interaction of these structural agents that impacts on housing outcomes nationally, regionally and locally in resource boom towns. The historically low level of housing affordability across the nation and in particular regions and localities is, to some extent, a product of unique combinations of housing policies, housing market characteristics and resource boom conditions. Local housing markets in mining boom towns are influenced by the economic and housing policies and actions of mining companies, governments and the housing industry.

2.1 Australian housing policy context

Housing dynamics in resource boom towns operate within specific housing policy contexts and draw attention to the relationship between housing policy and other social, economic and regional development policy. This section provides an overview of Australian housing policy in order to establish a basis for understanding the policy and institutional governance frameworks that impact on the nature of housing issues facing resource boom communities and options for responding to them.

The dominant approach of Australian governments, especially over the past three decades, has been to rely on market forces to deliver housing outcomes with minimal direct government intervention (Hillier et al. 2002). Direct intervention has been in the form of the non-market provision of social housing, and financial assistance to first home purchasers and low income renters. Governments do, however, exert considerable indirect influence on housing outcomes through policy interventions in areas such as taxation, land use planning, building regulation and tenancy law.

Policy responsibility and governance arrangements for these direct and indirect housing related policy areas are complex and fragmented with policy responsibility dispersed across Commonwealth, state and local governments and across different portfolios within those levels of government (Gleeson and Carmichael 2001). Housing considerations are largely absent or peripheral to urban and regional development and industry planning systems, policies and processes (Hillier et al. 2002).

The Commonwealth government has responsibility for a range of areas of social and economic policy that impact on housing outcomes. Of key importance are:

→ Housing assistance measures under the Commonwealth-State Housing Agreement (CSHA), Commonwealth Rent Assistance (CRA) and First Home Owner Grant scheme;

→ Taxation policies including negative gearing, capital gains tax, and fringe benefits tax on the value of employer provided housing benefits;

→ Exemption of the asset value of the home for income security purposes.

State and territory government housing related responsibilities include:

→ Housing assistance measures under the CSHA, including direct public housing provision;

→ Tenancy and consumer protection legislation;

→ Property title and land tenure legislation;

→ Land use planning and building standards legislation;

→ Taxation policies such as transactions duty.

Local government responsibilities for housing include:

→ Land use and social planning;

→ Building compliance;

→ Property rates and taxes;

→ Essential services infrastructure provision;

→ Facilitating or providing community housing.

Key areas such as the CSHA or land use planning involve two spheres of government acting jointly, or one sphere of government establishing the policy, regulatory or financial parameters within which the other sphere can operate. These governance arrangements provide the context for considering the range of policy options for managing the housing impacts associated with expanding mining activity.

2.1.1 Direct housing policy interventions

The CSHA has been a significant primary national policy instrument for direct government involvement in housing in Australia since 1945 and has provided the institutional, financial and policy frameworks for social housing. The other major housing assistance programs are Commonwealth Rent Assistance (CRA) which provides financial assistance to low income private renters, and bond assistance provided by the Western Australian Department of Housing and Works and the Queensland Department of Housing. In Western Australia two weeks' rent in advance is offered as an interest-free loan to help people obtain accommodation in the private rental market. Queensland offers a bond loan comprising an interest free loan of four weeks rent. A rental grant of two weeks rent is also available but this has limited eligibility. The rental grant does not need to be repaid. Financial assistance is given through one-off grants to first home purchasers. In recent decades, expenditure under the CSHA has declined in real terms while CRA has increased, so that in 2005-06 Commonwealth expenditure on CRA of over $2 billion was double that for the CSHA (Steering Committee for the Review of Government Service Provision 2007).

The relatively narrow policy focus of the CSHA on housing assistance to low income earners has endured since its establishment in 1945 in spite of Commonwealth Housing Commission recommendations for a broad and integrated approach to housing, land use planning and community development (Berry 1988; Hayward 1996). Initially, public rental housing aimed at working families was the primary mode of delivery. This was essentially a supply-side strategy to overcome postwar housing shortages (Jones 1972). For a brief period in the early 1970s and again in the first half of the 1990s, Commonwealth Labor governments expanded the scope of national housing policy to address concern with urban infrastructure, housing supply and locational disadvantage issues (Milligan 2003).

The main policy and funding attention of the CSHA has been on social rental housing, predominantly through direct government provision of public housing but with increasing involvement of non-government organisations. From the 1950s to the early 1980s there was also a strong focus on developing houses for sale on favourable terms to eligible low income earners. Some CSHA funds are also applied to assist low income private renters. Over time, the contracting supply of social rental housing has been more tightly targeted and is now directed to very low income and high needs

households, many of whom are likely to be permanently outside the workforce (Jones et al. 2007).

Indigenous social housing policy, funding and service delivery arrangements have been particularly fragmented and inadequate under the CSHA and special purpose Commonwealth programs. This is especially the case in remote areas where housing conditions remain poor, extreme overcrowding is rife, and access to basic infrastructure is severely lacking (ABS and AIHW 2005).

As a result of their funding and policy contexts, the CSHA and CRA play a relatively minor role in responding to the sort of housing issues confronting resource boom towns. Neither is designed to lever additional market housing supply. Social housing funded under the CSHA provides highly subsidised income related rents and therefore quarantines tenants from the impact of increasing market rents. The CSHA may also support limited additional supply of public or community housing, including Indigenous communities, but this is highly constrained by the limited capital budgets. Payment levels for CRA recipients are capped and therefore provide limited protection for low income households against increasing market rent levels.

From time to time, individual states have introduced particular housing initiatives to support industry development. South Australia has a long history of using housing policy instruments as a component of its state economic development strategy (Kilner 2005). In some states, for example, Queensland, government has been involved in initiatives to support mining such as financing or constructing housing to be leased to companies for employee housing. There are also recent examples of local government initiatives such as undertaking and subsidising land development in an effort to encourage additional and affordable housing supply in mining towns (Belyando Shire Council 2007).

Overall, the involvement of Commonwealth, state and local governments in direct housing interventions can be characterised as limited, diminishing over time and primarily directed to achieving social welfare objectives. While there are some specific examples of direct government housing initiatives to support broader economic objectives, these are uncommon, ad hoc in nature and inconsistent with dominant contemporary approaches to public policy.

2.1.2 Indirect housing policy interventions

In spite of some isolated examples of government involvement in housing supply, it was generally expected, until the 1980s, that mining companies had primary responsibility for providing housing, along with the other infrastructure required in remote locations. In some cases this was a condition of state government development approval (Houghton 1993). In 1991 legislation in Queensland removed the requirement for companies to provide homes for workers when developing new mines (ABC News 2006). Over the past three decades, there has been increasing use of FIFO and DIDO labour arrangements which require only on-site singles accommodation for workers during shifts rather than community based family housing. Government policies on issues such as infrastructure contributions and fringe benefits tax have in part contributed indirectly to these changes in staffing and housing policy decisions by mining companies. Other factors include reported changes in the lifestyles and expectations of workers and their families and changes in the cost and speed of travel (Houghton 1993).

The FIFO staffing arrangements are controversial and often opposed by local and regional interests because they reduce the social and economic benefits and growth potential accruing to regional communities from the local industries. There is pressure on governments to maximise the regional economic benefits and manage potential

negative impacts of mining communities (Houghton 1993; Watts 2004). These impacts are context specific and are often multifaceted, such as the proximity of FIFO facilities to Indigenous communities, regional towns and small settlements.

Development approval instruments such as impact assessments are a common mechanism for identifying and managing these issues. While initially focusing on environmental concerns, they are increasingly taking a 'triple bottom line' approach and broadening the scope to address social impacts such as housing (Brereton 2003).

Affordable housing policy

In recent years, there has been widespread community and industry concern about decreasing housing affordability for a range of people in the community including first home purchasers and private renters. This is associated with supply constraints, growing demand and the consequent dramatic increases in house prices and rents. A range of responses have been proposed by stakeholders from the housing and finance industries, social policy and community housing advocates, unions and all spheres of government. Proposals include combinations of: greater use of the planning system to leverage additional affordable housing; increasing the supply of land; reducing the cost to purchasers of land, housing development and infrastructure providers; taxation incentives for investment in affordable housing; innovative financing tools such as shared equity; and increased government investment in social and affordable housing.

Under the 2003 CSHA, the Commonwealth government and all state and territory governments adopted Principle 11 to 'promote a national, strategic and long-term vision for affordable housing in Australia through a comprehensive approach by all levels of government' (Department of Family and Community Services 2003: 4). Implementation of this principle was progressed with the release in 2005 of the Framework for National Action on Affordable Housing and a three-year policy development process was established (Milligan and Phibbs 2007). In the meantime, several state governments have taken the lead by developing affordable housing strategies and by beginning to invest in new models of affordable housing provision. Initiatives include state funded activities that are additional to public, community and Indigenous housing programs and other forms of assistance funded under the CSHA.

The new Commonwealth government was elected in November 2007 on a platform that included commitments to a range of housing affordability initiatives. These include a national housing working group to coordinate housing affordability responses and measures to increase housing supply, subsidise the development of affordable rental housing, and assist first home purchasers and homeless people. A new National Affordable Housing Agreement with the states is proposed to replace the CSHA from July 2009.

While it is too early to assess the state initiatives, there have been some research and evaluation studies which have documented their characteristics and performance and considered their potential (Milligan et al. 2004; Milligan and Phibbs 2007). The policy initiatives being considered as responses to broader affordable housing concerns are not specifically designed to address housing issues faced by mining towns, but may nevertheless be of relevance in identifying options to address general housing supply and affordability issues.

2.2 The Australian resources industry and housing

The rapid onset of the current resource boom and, in particular, its scale has placed enormous pressure on infrastructure, human resources and public service provision. Housing is an important and integral factor in responding to these challenges and is

arguably a much a critical component of social and economic infrastructure as hospitals, schools, roads, railways, ports and essential service utilities.

The resource boom is dynamic, of an unprecedented scale and constantly evolving, depending upon international markets and conditions. Record high demand for resources from China and India has seen an unprecedented growth in resource development in Australia. The value of mine production more than doubled in five years from $55 billion in 2002-03 to an estimated $113 billion in 2007-08. The industry's confidence in continuing high demand is evidenced by record high levels of expenditure on exploration and by capital investment in new and expanding mines (ABARE 2007).

The highest demand for liquefied natural gas, iron ore, nickel and coal and the major share of these resources being exploited is located in Western Australia and Queensland. In the six months to April 2007, two-thirds of completed major mining projects and three quarters of capital investment nationally were in these states. In this period:

→ More than half of the advanced projects and nearly 90 per cent of the capital expenditure on metal mining projects were in Western Australia;

→ 70 per cent of advanced energy projects and over 85 per cent of capital expenditure on these energy projects was in Western Australia and Queensland (ABARE 2007).

Most of the larger mining companies have formally adopted policies which recognise that mines have a responsibility to mitigate negative social impacts and contribute to the development of communities in and near where they operate. This builds on a global trend led by major mining companies to position themselves, and the industry more generally, as socially responsible and committed to sustainable development. The main impulse for this 're-badging' has been the desire to obtain smooth access to new resources, demands for improved relationships with governments at all levels, concern about the historically poor reputation of the industry in relation to past environmental and social management practices, and pressure from non-government organisations, international organisations (such as the World Bank) and 'ethical investment funds' for the industry to improve performance.

In 2004 the industry peak body released *Enduring Value: The Australian Minerals Industry Framework for Sustainable Development* to provide guidance on implementing international principles relating to social, economic and institutional development (Minerals Council of Australia 2005). Most of the larger companies have, in parallel, developed policies, standards and procedures relating specifically to the management of the interface between operations and affected communities, with particular focus on issues such as investing in communities, Indigenous employment and business support, local employment and business support, and social impact assessments.

Leading players in the industry are becoming more sophisticated in how they manage socio-economic impacts and the interface between mines and their communities. For example, companies are increasingly:

→ Taking a more structured approach to community support activities and investing in community development initiatives;

→ Utilising partnerships – with governments, service providers and community organisations – to address community needs and promote better development outcomes;

→ More sophisticated in engaging and establishing a dialogue with communities;

→ Using social science research to understand and manage social impacts and community needs and aspirations;

→ Willing in mining intensive regions to collaborate on addressing regional level issues and impacts.

2.2.1   Role of mining companies in housing

Arguing that they are paying substantial royalties to government, companies publicly resist calls to provide infrastructure and services that they see as being the responsibility of government or other sectors of society. They have, however, shown a willingness to take a more pragmatic approach 'on the ground' and continue to be major infrastructure and service providers in some communities. Such interventions have mainly been driven by the need to attract and retain workers in a tight labour and housing market, rather than by abstract notions of corporate social responsibility.

In the traditional mining town, the company was usually the main provider of infrastructure, including housing, roads and community facilities. This is still the case in some remote communities (for example, Weipa, Jabiru, Roxby Downs, some Pilbara communities such as Pannawonica), but the traditional closed mining town is largely a thing of the past in Australia.

Companies are no longer willing to construct purpose-built towns because experience has shown that they are expensive to build and maintain and tend to become ghost towns when mines close. In addition, there are considerable costs associated with fringe benefits tax, a Commonwealth tax introduced in 1986 which is levied on non-salary type benefits provided to employees. It is paid by the employer, not the employee. Today, new development prospects tend to be in more remote locations and have shorter mine lives, which means that it makes even less financial sense to invest in permanent infrastructure. Moreover, employees and their families are less keen to relocate to remote locations. As a consequence of these intersecting factors, there has been a dramatic growth in the number of FIFO and DIDO operations. Essentially, a company will now only establish a residentially based operation where there is already a pre-existing community nearby with at least basic services, and the location is considered 'liveable'.

Another important development has been the move by companies, usually with the active support of state governments, to 'normalise' previously closed mining towns by bringing them under local government jurisdiction. This has often also been associated with mines divesting themselves of most of the company-owned houses and establishing a privatised housing market (albeit one underpinned, in the early days, by guaranteed buy-back schemes for employees). Where a town has been 'normalised' (see Section 2.2.3), companies have been able to argue that the primary responsibility for providing services and infrastructure, such as housing, should lie with the local and state governments, as in most other communities in the country.

Although the public position of the industry is that funding for community infrastructure should be the responsibility of government, rather than companies, in practice the approach has been more pragmatic. Companies recognise that, particularly in a tight labour market, it is difficult to attract and retain employees unless towns have facilities and services and an acceptable standard of housing. Consequently, where the need is apparent, companies have often been willing to fill the breach – preferably in partnership with government, but unilaterally where there seems to be no other option.

In Queensland, mining companies are still major providers of infrastructure, including housing. For example, as part of its 2007 community plan developed for Middlemount, Anglo Coal (2007) has committed to investing in a range of infrastructure, including

building new duplexes to accommodate company personnel and upgrading existing mine accommodation.

Another recent illustration of the extent to which companies are still prepared to invest in community infrastructure is the Ravensthorpe Nickel Project in the south-west of Western Australia, being developed by BHP Billiton. This has been planned as a predominantly residential operation, with the expectation that most employees will live in the small coastal community of Hopetoun. Prior to the project, Hopetoun's population was only 800 people; there was only one store, no school and few other facilities. The project has the potential to more than double Hopetoun's population and obviously will place its limited infrastructure under very significant strain. In an attempt to manage these impacts and to make Hopetoun an attractive place to live for employees and their families, BHP Billiton has, amongst other things, financed the construction of a new housing estate, including both family-style accommodation and duplexes for singles and couples.

In some cases, mining companies perceive a direct economic advantage for the company as well as the community in housing development. An example is in the Hunter Valley where Coal and Allied has announced plans to develop a 7,000 home residential estate on surplus company-owned land. This development is not limited to company employees, and will meet housing market demand already existent in the Lower Hunter region.

In other cases, mining companies play an indirect role individually or collectively in housing supply by partnering with developers to provide worker accommodation by committing to lease back accommodation and therefore ensuring a guaranteed return for investors. An example is the MAC Services Group, a recently listed public company that supplies large-scale serviced accommodation, primarily to the mining industry in the Bowen Basin. The company has 3,000 rooms under management in four Bowen Basin locations and plans for another 700 in 2007-08. A core element of the business model is to secure contracts with mining companies to lease an agreed number of rooms.

Mining companies clearly have a major impact on housing availability and affordability in resource boom towns. Relevant factors include:

→ How companies manage the sequencing of resource developments and, conversely, the timing of closures and restructuring exercises;

→ Company willingness to invest in, or underwrite, the construction of new housing; and corporate human resource policies;

→ Company policies on locally-based or long distance commuting workforces;

→ Company willingness to make housing available to non-company personnel or otherwise subsidise their housing costs;

→ Company willingness to release company controlled land for urban development.

2.2.2 State agreements

Franchise agreements between state and Commonwealth governments and resource companies have been used in Australia for over 70 years to facilitate major resource development projects. While Western Australia continues to use State Agreements extensively, Queensland phased out the use of franchise agreements for new mining projects from the 1980s and now relies on general legislation to govern new mining projects (Fitzgerald 2002).

In Western Australia, State Agreements are contracts between the state government and major resource companies that detail the various obligations of both parties in the

development of a major project. These are ratified by acts of parliament. Their principal aim is to facilitate resource development:

> Major project developments requiring long-term certainty, land tenure and complex approvals in possibly remote areas of the State, are often established under State Agreements. Ratification of the Act, and the fact that State Agreement provisions can only subsequently be changed by mutual consent, provide greater certainty with regards to the project itself, security of tenure and reduction of sovereign risk (Department of Industry and Resources n.d.)

Since the early 1960s the development of minerals and energy in the Pilbara has been carried out under State Agreement acts. The government took this approach to overcome deficiencies in state legislation at that time in regard to large mining developments and their requirements for infrastructure and community services (Chamber of Minerals and Energy of Western Australia 2004).

State Agreements clearly identified the rights and responsibilities of the government and companies in relation to security of tenure, provision of infrastructure, arrangements for environmental management, royalty payments and processing responsibilities. These agreements provided companies with secure bankable documents that provided a basis for project planning and financing.

Under State Agreements, companies accept an obligation to provide and operate a range of facilities and services, and subsequently undertook considerable capital investment to meet these obligations. Housing, commercial premises, recreational amenities and other facilities within the town were built on land leased from the Crown under the terms and conditions of the relevant State Agreement. Small business or individuals establishing in the towns could only do so if the company was prepared to sub-lease land and provide services. Public utilities such as water, sewerage and power were built, owned and operated by the company (Department of Industry and Resources n.d.). As a consequence of State Agreements, the four shires in the Pilbara are restricted in their ability to increase rate revenue because mining companies are exempt from paying rates.

Several mining towns were established under State Agreements throughout the Pilbara, including Dampier, now a 'twin town' with Karratha. Despite early success, a number of problems emerged in the early 1970s. These were attributed, in part, to much larger growth in these towns than was originally anticipated, and included:

→ Constraints on shopping centre facilities and limited competition amongst retailers;

→ Problems with land tenure and leasehold arrangements. Town site leases were granted to the mining companies under the State Agreements. These lacked the security of freehold and, as a result, were a significant disincentive to private investors. Consequently, most accommodation was company-owned, while clubs and organisations had to turn to the mining company for finance;

→ Difficulties experienced by mining companies in balancing managing towns with managing large resource development projects;

→ Industrial relations issues such as labour turnover, singles/married ratio and industrial disputes.

In addition to these problems, there was increasing pressure from third parties wanting land for regional services, contrary to the lease conditions under the State Agreement. Companies contemplating other projects also sought the right to establish in the company-owned towns.

In Queensland, franchise agreements were widely used to facilitate economic development and were the predominant mechanisms used between the 1950s and 1970s to establish major resource and non-resource development. The early development of coal deposits in the Bowen Basin in the 1960s was regulated through negotiated agreements and some remain in operation. The towns of Blackwater, Moranbah and Dysart were established under agreements negotiated between the Queensland government and Utah during the 1960s. These negotiations involved the pre-existing local governments of Duaringa, Belyando and Broadsound and, in contrast to the Pilbara, resulted in the establishment of 'normalised' towns. There were complex negotiations regarding the respective contributions of state government, local government and mining companies to the capital establishment costs and recurrent operation of basic town infrastructure (Galligan 1989). Many of these arrangements have been contested over time as the towns have faced fluctuations associated with the resources market, and the historical legacy of the agreements continues to influence debates about strategies and responsibility for addressing the housing market dynamics in Bowen Basin towns in the context of the current mining boom.

2.2.3 Normalisation

In the early 1970s it was felt that many of the problems described above could be overcome by 'opening' or 'normalising' company-owned or 'closed' mining towns. Under normalisation, the local government authority takes over the provision and operation of services and facilities previously provided and operated by mining companies under State Agreements. The Western Australian government regarded normalisation as a way of achieving greater commercial and social maturity in the Pilbara region (Thomas et al. 2006).

In November 1977 the state cabinet authorised commencement of negotiations for the normalisation of selected Pilbara towns, to be implemented by way of a Deed of Normalisation between the company and the local government authority. This Deed included provisions for annual payments by the company to the local government authority for the ongoing operation and maintenance of the facilities and services being taken over. This financial contribution, sometimes referred to as the 'normalisation rate', was indexed for inflation and was additional to the general rates paid by the company:

> In the early 1980s, Hamersley Iron and the state government began a process of normalisation, which resulted in the majority of state and federal government functions in the towns being transferred to the relevant government authority. Robe began a similar process for Wickham in the 1990s. With the transfer of assets and accountabilities to state and federal authorities largely complete, or with rights of occupancy granted to those authorities, the outstanding process of normalisation for the towns of Tom Price, Paraburdoo, Dampier and Wickham is the transfer of ownership and accountability for services and assets that would normally be provided by a Shire or Local Government (Thomas et al. 2006: 1).

Dampier is undergoing a process of normalisation. Consequently, the Shire of Roebourne has taken ownership of some, but not all, of Dampier's infrastructure assets, many of which were constructed about 35 years ago. The mining companies paid the shire an annual normalisation payment according to an agreed schedule of payments over a number of years in recognition of the age of the infrastructure being handed over.

This aged infrastructure is now requiring extensive repair and maintenance, with some community assets such as swimming pools requiring replacement. The process of normalisation has stalled while the issue of the outstanding assets is resolved (Thomas et al. 2006).

2.2.4 Housing market dynamics in remote communities

The housing markets within resource based economic regions share a number of general features with all Australian housing markets. First, housing is a major household consumer expenditure item and represents a major form of fixed capital. At the individual household level, housing and land are more widely held than any other form of capital, so housing markets affect the distribution of wealth and services in Australian communities. This study examines several distinctive resource region housing markets in Western Australia and Queensland. While a number of general consistencies can be observed, it is important to note that each of these housing markets are characterised by some important individual market dynamics.

In essence, the important economic components of housing markets comprise the inputs of land, labour, finance, materials and infrastructure. These inputs and the interaction with supply-side agents such as developers, landlords and public housing providers shape local housing markets. Homeowners, investors and, to a lesser extent, renters are also producers and consumers of housing services since they develop, purchase, maintain and upgrade housing units. The characteristics and actions of these groups are key components of housing market dynamics.

Specific locations have distinctive local housing market characteristics shaped by both economic and spatial variables. As a starting point for examining the housing market dynamics in remote communities, it is the supply and demand characteristics of the markets that have a significant impact on these locations. In Karratha, between 1991 and 2006, house prices increased by over 400% (Pilbara Development Commission 2004, 2006, 2007). Without a similar increase in incomes, the affordability of housing is affected. This has implications for remote locations. For example, accommodation options decline as more and more housing becomes unaffordable. Those members of the community looking to form new households, or many of those seeking to move into the community, cannot afford to do so and are forced to either remain in unsuitable accommodation or move to alternative locations.

The demand for and supply of housing are the main determinants of housing market dynamics from an economic perspective. If there is a shortage of supply for a given demand, then prices will rise, and if there is an excess of demand for a given supply, then that will also cause upward pressure on prices. Early research evidence suggests the resource boom has had a direct influence on the demand for housing in the four towns in this study. The extent of the demand differs from location to location and depends on factors such as the proximity of the resources, the quantity of labour required and the ease of access to the locations from major population centres.

The level of demand for housing has a direct impact on price. The extent of this depends upon the supply of housing in the given location – both existing housing and the development of new housing units. Supply is constrained spatially through:

→ Physical availability (the amount of land that could be actually developed for housing);

→ Planning policies;

→ The amount of land on which housing development is permitted;

→ Development capacity (the amount of housing units that can be built with the resources available in that location).

The combination of these factors determines how the local housing market responds to housing demand pressures.

Examining demand and supply data in all four towns allows for a comparison of market dynamics. We can explore differences in how the housing markets in the towns have reacted to the resource boom. For example, the patterns of land supply in Kalgoorlie and Karratha have been very different, as have the resulting house prices, but this is just one element of housing dynamics.

In studying housing markets, it is important to acknowledge two different measures of housing: housing units and housing services. Housing units are simply the demand for and supply of dwelling units. This definition does not distinguish between quality variations in individual housing markets. The availability and appropriateness of housing is crucial in defining a housing market. In analysing housing services, there is an attempt to identify the differences and variations in quality between housing units. Housing services are typically defined as the total quantity and quality of housing consumed. This demand-side perspective is important for analysis of housing markets in remote communities as the relevant demographic profile will both create and determine the important characteristics of demand for housing services in specific communities.

The economic characteristics of housing markets share some important linkages with the sociological characteristics of regions. The basic service of housing is shelter. Shelter is a service like education that must have policy concerns for both efficiency and equity within economic regions. As mentioned above, declining affordability has a significant affect on the availability of housing for members of remote communities. Since housing has such a significant impact upon the distribution of wealth, housing location characteristics and tenure types also affect the welfare of occupants, therefore housing issues are often also linked with important social policy issues. This is an important consideration for some of the towns included in this study.

The Australian Housing and Urban Research Institute (AHURI) has published numerous reports on housing policy, social housing, homelessness, Indigenous housing and housing affordability. These indicate that the public sector has increasingly rationalised its expenditure on social housing, channelling it to areas of more certain occupancy, where the housing and rental markets are more stable and are combined with lower construction and maintenance costs. This has resulted in diverse and unmet housing needs, especially in remote communities (Hillier et al. 2002; Jones and Tonts 2003; Warner-Smith and Brown 2002; Wulff et al. 2005). Moreover, remote communities dependent on industry-funded housing are seen to be vulnerable to collapse as international demand shifts (Hillier et al. 2002; Warner-Smith and Brown 2002), resulting in relocation disincentives to prospective immigrants who could potentially provide necessary services, such as health staff (Haslam McKenzie 2006; Jones and Tonts 2003).

Atkinson et al. (2007) released a report on urban development in Australia which suggests that the mechanisms for planning urban development need a radical overhaul. Currently there is a lack of coordination and leadership, especially at the national level. The report called for the appointment of a Commonwealth cabinet minister for housing and urban development, with responsibility for creating a national policy coordinated with the three levels of government.

2.2.5 Social and environmental impacts of housing market dynamics in resource boom towns

A number of studies focusing on low housing affordability and the impact on staff retention, particularly on small business in regional and remote towns, have been conducted (Haslam McKenzie 2006; Pendergast et al. 2004).

The impact of FIFO operations on the families of resource workers on FIFO contracts has been examined from a community perspective (Gallegos 2005; Watts 2004). Gallegos (2005) has also examined their impact on child development, showing that workers and their families come under increasing familial stress. The pattern of work has the potential to negatively affect familial relationships, causing problems in marriage and parenting. In order to strengthen familial ties, Gallegos recommends a range of measures aimed at avoiding negative outcomes and promoting familial ties within the FIFO work context. These include a parenting resource, provision of emergency in-home child care, greater education for families and service providers, and induction sessions for families.

Most literature relating to housing and environmental issues come under the rubric of sustainability, and most of that relates to architecture, with a greater emphasis in the literature on eco-friendly architecture.

There is a dearth of literature on the environmental effects of FIFO operations or the importance of economic, social and environmental variables associated with diverse accommodation and housing and how they contribute to wider 'quality of life' indicators (Henderson et al. 2000). Environmental sustainability indicators (such as health, education, the natural and built environment, and social connectedness and their relationship with housing) are important, particularly in regions struggling to attract and retain a productive workforce. These multifaceted indicators have important bearings on the quality of life performance of the healthy, liveable and sustainable communities (Singleton and Haslam McKenzie 2008).

2.3 Indigenous housing in resource boom towns

For the three decades between 1970 and 1999, research on Indigenous housing largely focused on remote and very remote communities, mostly in the Northern Territory. This is despite the fact that most Indigenous Australians live in cities, and most of those living outside of cities live in or near regional towns. Since 2000 there has been a greater focus on Indigenous housing in urban areas, mostly cities. In other words, since 1970 a disproportionate amount of the research has been conducted away from where most Indigenous Australians live (Long et al. 2007). This is changing slowly, but there are still areas of research that are neglected.

Research literature has tended to follow a binary distinction defined by Rowley (1972) who described Indigenous Australia as being divided into 'settled' and 'remote' communities. The settled communities are those located in and around the metropolises, with the remote communities consisting of small, scattered settlements in the north of Australia. Between these two categories, and somewhat left out of the equation, are the regional towns (Birdsall-Jones and Christensen 2007). As a result, Indigenous housing in regional towns has been a neglected area of research. Likewise, dedicated research on the impact of resource development on Indigenous housing in regional towns has received scant attention.

Most research is still conducted within a remote/settled binary, and government department and agency policies are developed in accordance with that context. For example, a report on alternative housing systems for the Department of Families, Community Services and Indigenous Affairs concentrates on 'remote' Indigenous

communities (SGS Economics and Planning 2006). Such communities are affected by a lack of infrastructure, and the cost of establishing it. The supply of fresh water, electricity, sewerage and drainage systems, transport and communication systems, and other vital infrastructure are costly in remote communities. This problem is not as acute in regional towns where such infrastructure is already established.

The concepts of 'remote', 'regional' and 'rural' are often collapsed as if they are one and the same thing, or one suffices for the other. Yet all relate to quite different contexts, geographically and demographically. For example, while remote desert communities are located in regional settlements, they are in many ways different from rural farming communities, as they are different from regional towns (Birdsall-Jones and Christensen 2007). The prevailing analytical framework, specifically the remote/settled binary, needs to be reviewed. While Birdsall-Jones and Christensen (2007) referred specifically to studies relating to Indigenous housing, the remote/settled binary is also applied to research on mainstream housing, and therefore does not solely apply to Indigenous housing.

Long et al. (2007) further divided the literature into two thematic streams: macro-issue and micro-issue. Macro-issue themes focused on the questions of ownership, funding, sustainability, management, planning, policy, projects and programs, performance, affordability, accessibility, appropriateness, housing needs, provision of housing, services, and the historical, political and institutional aspects of housing. The micro-issue themes focused mainly on occupation and use, domiciliary composition, user groups, mobility, design, technology, and issues relating to home, place and space.

2.3.1 Indigenous housing, homelessness and overcrowding

The principal research foci of the micro-issue themes surrounded questions of occupation and use, and housing design. In some ways, the principal focus was on various problems related to Indigenous housing such as homelessness, overcrowding, poverty, provision of services, and the effectiveness of government assistance programs. These issues dominate the research literature written between 1970 and 1999 (Long et al. 2007).

The principal research focus in the macro-issue themes surrounded questions of management and its role in the provision of housing, services, improved performance, rent assistance, home ownership schemes and sustainability. The overarching theme is one of trying to manage the micro-issue themes, and developing appropriate and effective policies. This has been a strong research focus since 2000 (Long et al. 2007). Micro-issue themes are explored within the context of macro-issues. For example, there has been more research conducted on the management of homelessness and overcrowding, and provision of related services.

Threaded through the macro-issue and micro-issue themes is the enduring issue of Indigenous homelessness and of how to define, measure and deal with it. Chamberlain and MacKenzie's (1992) definitions of different categories of primary, secondary and tertiary homelessness are now widely accepted by Commonwealth and state government departments and agencies. They are therefore the accepted definitions used in this Positioning Paper. Yet it may be argued that homelessness among Indigenous Australians had its own unique set of contexts and problems. Coleman (2001) challenged the way Indigenous homeless were socially constructed and defined, leading to reactive and unproductive responses from the public sphere and policy arena. She argued that there was a 'historical tendency to construct homelessness as a dangerous state threatening to the social order, and homeless people as outsiders' (Coleman 2001: 176). Memmott et al. (2003b) proposed new categories of Indigenous homelessness. The nature of Indigenous homelessness is

complex, and includes people who are 'at risk', public place dwellers, the spiritually homeless and the spatially mobile.

Public place dwellers constitute a particular category of the Indigenous homeless. Memmott et al. (2003a: 1) provided a 'national overview of local strategies being used to address the needs and problems of homeless and itinerant Indigenous Australians who are living in public places'.

The Department of Families, Community Services and Indigenous Affairs (2006: ix) recognises that Indigenous Australians are 'significantly over-represented in the homeless population'. They also refute the myth that homelessness is a matter of choice rather than a devastating experience. The department's main concern is service delivery, principally in the form of the Supported Accommodation Assistance Program (SAAP).

Finding solutions to homelessness in general, and Indigenous homelessness in particular, is fraught with difficulties. Housing stress is more acute among Indigenous Australians due to high levels of poverty (Birdsall-Jones and Christensen 2007; Department of Treasury and Finance 2007). Moreover, early research results in this project indicate that this is an issue that likely will have major impact on the work readiness of the potential Indigenous workforce:

> Ensuring and developing pathways out of homelessness is unfortunately not simple, as history has demonstrated it is actually much easier to create homelessness. Pathways out of homelessness inevitably require a continuum of responses and opportunities for individuals and families to access, in order to move onto that pathway (Durkay et al. 2001: 14).

One of the problems has been that non-Indigenous interventions have rarely worked (Sanders 2000). Finding a workable solution to homelessness and overcrowding requires an understanding of the relationship between kinship and household among Indigenous people. For example, one reason they may choose to live in one town or another might be decided upon the relationships existing between women in the extended family: between mothers, daughters, aunts and nieces (Birdsall 1988).

The nature of kinship ties is such that many Indigenous families constitute what Basil Sansom called a 'concertina household' (Keen 1988: 12). Indigenous households contract and expand according to the relative mobility of family members, therefore their accommodation needs are different from those of non-Indigenous nuclear families.

So-called concertina households often encompass temporary overcrowding. Combined with factors such as low housing affordability, family breakdowns and other forms of social displacement, overcrowding can become a serious problem. Overcrowding is a prevalent form of 'hidden' Indigenous homelessness. It constitutes a form of homelessness when people who, for whatever reason, do not have a place of their own and so camp out or bed down at the home of relatives or friends. Overcrowding is a reflection of the housing affordability crisis and of the shortage of low cost public housing. The situation is magnified in the regional centres because of the increased cost of housing developments and associated infrastructure:

> Overcrowding problems in mainstream public housing are more prevalent among Indigenous tenants and Indigenous tenancies are shorter in duration than non-Indigenous tenancies. While the data is incomplete, Indigenous households are more likely to be served termination and final eviction notices than non-Indigenous households (Flatau and Cooper 2005: 1).

Several reports have recommended an increase in the provision of social housing as a necessary measure to help solve Indigenous homelessness, especially overcrowding (Flatau and Cooper 2005; Long 2000; Neutze et al. 2000).

Indigenous housing in the Pilbara

The connection between Indigenous housing, labour and resource development has been largely, but not completely, overlooked. The Pilbara region, however, has received some attention.

The practice of mining companies employing Indigenous Australians, mostly in unskilled positions, has been a feature of life in the Pilbara for over 30 years. Using qualitative data to study the dynamics of Indigenous labour in the resource-rich Pilbara region, Taylor and Scambary (2005: 145) have shown 'that little has been achieved over the past four decades in terms of enhancing Indigenous socio-economic status in the Pilbara' and that, despite '40 years of substantial economic development in the Pilbara region, the labour force status of Indigenous Pilbara residents has barely altered' (Taylor and Scambary 2005: 146):

> However, research to date indicates that for a complex set of reasons, Indigenous economic status has changed little in recent decades – dependence on government remains high and the relative economic status of Indigenous people residing adjacent to major long-life mines is similar to that of Indigenous people elsewhere in regional and remote Australia (Taylor and Scambary 2005: 1).

An example of this was shown in a survey of 'grocery basket costs' in Pilbara towns for 2001-05. Karratha and Wickham had the lowest prices, while Roebourne and Marble Bar, two towns with a predominantly Indigenous population, had the highest prices (Taylor and Scambary 2005). Using the 2001 census, Taylor and Scambary (2005: 99) argue that there is an 'inadequacy of housing stock available to accommodate the regional population.'

There are potential opportunities for greater Indigenous involvement in the economy, and specifically in the resource sector:

> On the basis of planned economic development and corporate interest in pursuing Indigenous engagement, progress is now possible but major efforts are required from all interested stakeholders (Indigenous organisations, miners and governments) in order to ensure that this occurs (Taylor and Scambary 2005: 145).

Trigger (2005: 55) argues that mining companies make no allowance for Aboriginal ways of life when employing Indigenous Australians. The companies' 'emphasis on individual planning, rights and entitlements, to the detriment or neglect of family and community obligations and relationships, may well be antithetical to Indigenous social and economic systems of organisation'. He proposes that 'new ways must be found of articulating market participation with a number of key Indigenous values'.

Indigenous residents in resource boom towns have critical financial needs. Berry (2002, 2003) suggests that 'locational disadvantage' and population transition emerge as a result of decreasing housing affordability and diversity of tenure near places of good service provision. Berry (2003) views this 'spiral' as an Australia-wide 'crisis', as do Cooper and Morris (2005).

Indigenous housing in Kalgoorlie

Christensen (1981) researched the existence of desert traditions among Wangkayi people in Kalgoorlie. Historically, Indigenous housing was divided between those

living a traditional lifestyle in remote areas, and those living in communal housing on missions, reserves and camps. A minority lived on pastoral stations. The provision of social housing from 1960 led to more Indigenous Australians living in Kalgoorlie. This also represented a move away from traditional lifestyles and from employment on outlying pastoral stations. In the 1960s, most of the employed worked on pastoral stations, but this began to decline and no major industry took its place as a principal employer. By and large, mining companies did not employ Indigenous Australians in any capacity.

Indigenous housing in Kalgoorlie and the Goldfields region has not had a strong research focus, but there is some work available which informs the situation. Many of the problems now revolve around the provision of social housing. A 1995 report on Indigenous housing in Kalgoorlie found that 'segregation in the town was very obvious and that the Homeswest practices were instrumental in contributing to the division within the community' (Shelter WA and Bega Garnbirringu Health Service 1995: 6). Since then, the Department of Housing and Works began to employ more Indigenous staff, introduced cross-cultural training for staff, and introduced a new debt repayment scheme for Homeswest tenants (Eringa 2004). The 1995 report recommended an increase in community housing for those on low incomes, but since then there has been no increase in community housing.

Appropriate housing

Appropriate housing for Indigenous Australians has been defined as 'housing that develops and supports the wellbeing of Indigenous people and communities … This is a vital overarching principle and should be of fundamental importance in all approaches to the provision of housing.' (SGS Economics and Planning 2006: 7). This definition of appropriate housing could also apply to all Australians. Housing and the built form for all people living in remote communities is notoriously inappropriate. European building styles are rarely suitable for the living traditions of Aboriginal people or the extreme climatic conditions of remote locations where many mining operations are located. Building materials such as tin and fibro do not insulate, and the orientation of housing often does not take into account the sun's orientation, ventilation opportunities or sustainable environmental principles. The introduction of 12 hour shifts has meant that floor plans and housing designs should separate living and sleeping quarters, but dwellings built prior to 2000 do not cater well for workers on such shifts.

The construction of temporary mining camps, often using dongas (converted sea containers) for accommodation grouped around a central mess, is a regular practice. This accommodation is usually restricted to FIFO or DIDO workers, and there is no attempt to provide any other amenities than those for everyday sustenance.

SGS Economics and Planning (2006: 7) suggest that appropriate housing must be adequate 'in terms of health and safety outcomes': physically, culturally and socially appropriate to context and cost-effective/affordable. Access to appropriate housing is affected by a range of economic factors, including affordability. Other factors include 'the type and amount of housing being provided, the means of delivering and maintaining housing, the physical conditions where housing is located, and the cultural norms and expectations' (SGS Economics and Planning 2006: 5).

2.4 Western Australian and Queensland housing in the resource boom

Some of the major developments in Australian housing-related literature over the past year have been:

→ An expansion, or greater clarification, of the frames of reference of the debate on housing affordability;

→ Its current connection with the resource boom;

→ The expansion of the debate to include wider sections of the community;

→ Its prominence as an election issue.

This is a reflection of a national crisis in housing affordability, largely seen as a result or side-effect of the resource boom.

The frames of reference have begun to question the vagueness inherent within the whole concept of housing affordability. More and more research now distinguishes between mortgage stress and rental stress, and does not make the implicit cultural assumptions about affordability having to do with a particular tenure type or housing type (Department of Treasury and Finance 2007).

Housing affordability and housing market dynamics in general became an issue in the 2007 federal election. During the election campaign, opposition parties announced policies that dealt specifically with the housing crisis (Australian Democrats 2007; Australian Greens 2007; Rudd et al. 2007). The election sharpened the debate and helped broaden the frames of reference. Previously the housing debate was divided between housing affordability, which was often a euphemism for home ownership affordability, and homelessness, especially Indigenous homelessness. The debate has broadened to question these frames of reference, especially in regard to what is meant by housing affordability. It has also been recognised that homelessness affects not only Indigenous peoples, but the mentally ill and those suffering from substance abuse or domestic violence.
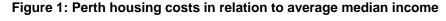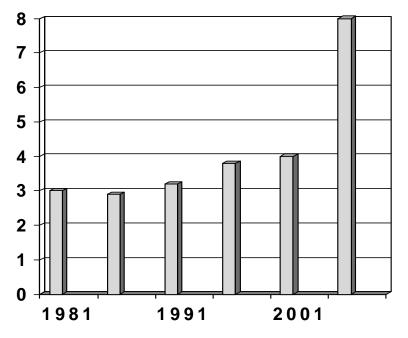
2.4.1 Western Australia

Western Australia is rich in mineral wealth. About 50 different minerals are mined in the state, the most profitable one being iron ore from the Pilbara. The Goldfields region, as the name suggests, is famous for its gold mines, but also for nickel mining (Storey 2001). According to the Department of Industry and Resources (2007: 1):

> The resources sector continued to be the prime driver of economic expansion. The value of production from the resources sector alone increased from $39.5 billion in 2005 to $48.4 billion in 2006, driven by buoyant commodity prices and strong global demand. Western Australia's economic expansion is structural not cyclical – that unlike the booms and busts of the past, the current economic expansion will be 'stronger for longer' and sustainable.

> Investment growth is driven by two factors – increased investment in mining and petroleum projects to increase production capacity in response to higher levels of demand; and increased investment in economic infrastructure such as ports, rail lines, roads and energy and water supplies to facilitate the expansion of the resources sector and the State's economy generally. Capital investment in Western Australia surged from $9.1 billion in 2004 to $18.3 billion in 2006.

Real estate prices in Western Australia have steadily increased since the 1970s but they have escalated over the last five years. As shown in Figure 1, in September

2006, the average Australian house cost 6.6 times the average Australian median income, but the average house in Perth cost eight times the average median income.

Figure 1: Perth housing costs in relation to average median income

Source: ABS (2006), Demographia (2006, 2007).

As Figure 2 shows, the increase in prices has not been restricted to the Perth area. Over the last five years, Western Australia has had the second highest population growth (behind Queensland) although between mid-2005 and the beginning of 2007 the population is estimated to have grown by 2%, similar to Queensland and the highest growth of all states (Department of Treasury and Finance 2007). Since the December quarter in 2001, demand for new dwellings (as measured by building commencements) has exceeded the capacity of the building industry to meet supply (as measured by completions). Western Australia is the only state to experience a sustained deficit between commencements and completions since 2001.
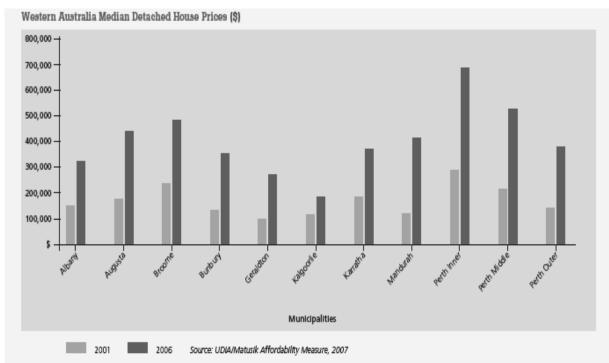
Figure 2: Western Australian median detached house prices, 2001-06

Source: Urban Development Institute/Matusik Affordability Measure (2007)

The resource boom has led to a rapid increase in population and increased demand for housing. The lack of supply and rising demand for housing has led to housing (mortgage and rental) stress. The Western Australian Department of Treasury and Finance (2007: 1) suggests that 'the greatest incidence of housing stress occurs in the private rental sector': in 2005-06, 31 per cent of low income home mortgagees were in mortgage stress, while 51 per cent of low income private renters were in rental stress. There is a corollary in that rental stress has led to the inability of Karratha to attract and retain low income workers in the retail and service industries.

The Department of Treasury and Finance (2006) also released *Migration in Western Australia: A Recent Economic History* which details a dramatic increase in population. The corollary is that the extra population requires extra housing, yet there has been no similar increase in housing supply to meet the upsurge in demand.

The Department of Housing and Works has produced a comprehensive Housing Strategy comprising of a series of research papers released between 2000 and 2004. The strategy covers key policy areas, including conceptual framework and methodology, drivers of changes: influences on housing, regional housing, population outlook and housing requirements, and population and household projections for 2001 to 2026.

The Housing Strategy report on regional housing notes that 27 per cent of the state's population are housed in the regions (or non-metropolitan area). There is a high mobility of youth (15 to 24 years), with 50 per cent moving between 1996 and 2001. Of all the regions, the Pilbara has the most employer-provided housing at 24 per cent (Department of Housing and Works 2006).

Karratha is located 1,535 kilometres north of Perth in the heart of the Pilbara Coast. The town's name was originally given to the first station property in the area in the 1860s. Pre-contact Aboriginal habitation throughout the area is indicated by large shell middens and prolific rock art. The Burrup Peninsula, a few kilometres from the

centre of Dampier township and 10 kilometres west of Karratha, is the location of 10,000 Aboriginal petroglyphs or rock engravings (Australian Heritage 2007).

Dampier was established as a 'closed' Hamersley Iron company town, meaning that it was established and serviced by the company in 1966 for the exclusive use of company employees, particularly those working at the nearby port facilities. The present Karratha townsite was originally established as a result of the continued expansions to the Hamersley Iron operations, and the lack of suitable land for building additional housing for the growing workforce in the then established Dampier. At the same time, Dampier Salt made plans for large-scale salt production. These developments, coupled with the further development of the immense offshore gas reserves by Woodside's North West Gas Project on the Burrup Peninsula, saw the towns of Dampier and Karratha grow very quickly. Planning for the construction of Karratha began in 1968 and land was excised from Karratha Station pastoral lease. Wickham's first permanent buildings were begun in 1970, and from this time the Shire of Roebourne was faced with increasing responsibilities.

Dampier is the biggest tonnage port in the country. In 1993 it loaded in excess of 60 million tonnes, with over 1,500 vessels calling at the port. Although iron ore is the principal output (nearly 50 million tonnes), large shipments of liquefied natural gas, salt, and condensate also pass through the four major docking facilities within the huge harbour.

2.4.2 Queensland

Queensland has significant resource deposits including coal, energy and metallic minerals, and is the location of extensive exploration and extraction activity. It is the world's largest exporter of seaborne coal, with mining concentrated in the central Bowen Basin and the south-western Surat Basin. Metallic minerals production, including the base metals copper, lead and zinc, occurs in the north and north-west which is recognised as one of the world's most significant mineral deposits. Exploration and planned expansion are considerable, with 30 metal and mineral projects, 15 coal projects and six petroleum and pipeline projects at advanced stages of investigation (Queensland Department of Mines and Energy 2007a).

The Bowen Basin is an area of coal reserves totalling approximately 60,000 square kilometres. These are the largest reserves in Australia and amongst the biggest in the world, with 26 mines extracting over 100 million tonnes annually. The area has experienced booms and busts in mining activity during its history and, following a downturn in the 1990s, is currently enjoying significant growth. This is expected to continue, with approximately 29 coal mining projects in development or under expansion (Queensland Department of Mines and Energy 2007b).

The Bowen Basin is situated within driving distance of the regional centres of Mackay, Rockhampton and Emerald. Many workers live in these centres and travel to work in the mines and may stay on site for several days at a time while on block rosters. There are 15 communities with an estimated total population of 71,000 in 2006.

The accumulated effects of rapid expansion in mining since 2001 include population growth and housing pressures. Housing conditions associated with the mining boom in the Bowen Basin identified in government and community reports include:

→ Rent increases: the median rent for a three bedroom house increased by 142 per cent ($123 to $198) between 2001 and 2006;

→ House price increases: the median cost of purchasing a three bedroom house rose from $51,318 in 2001 to $196,130 in 2006;

→ Limited housing options: low vacancy rates for rental accommodation, and limited social housing;

→ Housing conditions: increase in temporary and informal accommodation, and extensive use of single persons' quarters for mine workers (Queensland Department of Housing 2007a).

These conditions are not uniform, with some communities experiencing extreme conditions, such as Moranbah where rents were nearly $600 per week for a three bedroom house in June 2006. The housing pressures are, however, being felt across the region, from local mining communities to larger regional population centres. The reported impacts include:

→ Households on low and fixed incomes being forced to relocate to areas with less expensive housing markets;

→ Difficulties in attracting and retaining workers, particularly in essential services and support industries;

→ Social and health problems associated with families being separated while miners work extended rosters and live on mining sites;

→ Social problems associated with large numbers of single miners congregated in small mining towns;

→ Health and safety issues associated with workers driving long distances to regional centres at the end of work rosters (Rolfe et al. 2006).

In response to community concerns about these and other issues, the state government has established a Central Queensland Coal Communities Task Force overseen by a committee of chief executive officers from key government agencies. Another recent policy initiative was the release in February 2007 of a discussion paper on the development of *A Sustainable Futures Framework for Queensland Mining Towns* (Department of Local Government, Planning, Sport and Recreation 2007). This document proposes a more integrated and robust approach to managing issues associated with growth in the Bowen and Surat Basins. It also flags a review of the environmental impact statement process with a view to enhancing consideration and assessment of social impacts, including housing issues, and addressing the cumulative impacts of multiple mines.

2.5   International comparisons

This section reviews international literature on the relationship between housing market dynamics and resource boom towns. It was undertaken to assess whether there are any parallels between towns in Australia and overseas. The main aim was to ascertain if other resource boom towns in different contexts faced similar problems as those Australian towns chosen for this project, and to appraise how government and private enterprise sectors dealt with housing market dynamics.

Boom towns, despite the wealth generated by the associated resource-based industries, create a series of interconnected and cumulative problems for government and private sector policy makers. These problems go beyond the supply of affordable housing, and impinge upon the sustainability of the community, especially its essential services and infrastructure. Government policy needs to focus on comprehensively addressing the overall situation, not just various problems separately. This means coordinating the development of essential services and infrastructure to meet the demands of the boom town, including the demand for affordable housing.

An enduring challenge regarding the provision of services is the expected longevity of the boom and of the town itself. What happens when the boom ends and when resources of the region run out? This has been the case internationally with many resource-based towns. For example, the famous coal mining towns of Britain and Wales, and many in the United States, have felt the devastating effects of pit and

mine closures (Hudson and Sadler 1990; Thursfield and Henderson 2004). What were once well-established and thriving communities have floundered socially and economically, with urban decline following hard on the decline of international resource markets and the consequent decline of related industries in the local setting.

2.5.1 The impact of coal mine closures in Britain and the United States

One of the enduring aspects of coal mining communities in Britain and the United States was that the labour force was local. When mines closed, the large pool of unemployed labour was concentrated in one locality, thus affecting the social and economic fabric (Leistritz and Root 1999; Strangleman 2001).

Many British mining towns experienced housing market failure with the virtual demise of the coal industry after the 1984-85 strike and the sell-off of a large number of pits to private concerns. With the entire economy dominated by mining, the closures meant job losses, loan defaults and the loss of public services previously funded and maintained by the mining company, such as energy and water supply, health provision and education facilities such as local school support and specialist mining apprenticeship programs. Some towns became non-functioning, and the homes worthless. Over time, however, there has been a market recovery, driven by the need to make beneficial reuse of a scarce resource – land. Almost two-thirds of mine sites have been redeveloped for commercial, industrial or residential use. Many others are constrained by planning conditions as they are located in 'greenbelt' areas where hard development is not permitted. Even here, beneficial reuse occurs in the form of use for agriculture or amenity purposes (Wilde 2007).

The closure of mines and plants in the United States resulted in different sets of problems according to a variety of factors. These included the size of the local population, the nature of the local economy, the residency status of the labour force (whether local or commuting) and the town's distance from major urban centres. Small towns that were relatively isolated and whose principal employer was the mine or plant had the most problems. The larger towns with a varied economy were more able to sustain the closures. Where there was a predominantly commuting workforce, the impact of unemployment was lessened. However, the small resident population that provided services to the mine or plant and its workforce were often hard hit. Small businesses struggled to stay afloat, and many local residents became unemployed (Leistritz and Root 1999). Where the mining company owned much of their resident workforce's housing, they often sold off the houses after closing the mine. The once relatively cheap rental housing was then often sold to former employees, who used their redundancy payouts to purchase the dwellings, or to private landlords who raised rents. Either way, housing became more expensive (Strangleman 2001).

At the other end of the spectrum are resource developments that are expected to continue regardless of the fiscal outlook, mostly on the increased demand from countries such as China, India and Russia. The Pilbara region is expected to sustain a long-term boom through the provision of resources to these expanding economies.

2.5.2 Fort McMurray, Alberta, Canada

Fort McMurray in Alberta, Canada is a resource boom town situated in the heart of the largest deposit of oil sands in the world, with an estimated 62% of its population employed by an oil company or contractor. The town is experiencing a housing affordability crisis similar to Karratha, with an increase in demand for housing, coupled with a lack of supply. Prices and rents have dramatically increased, creating housing stress among some of the population, together with a growing number of people living in caravans, motels and other non-standard housing (Government of Alberta 2006).

Oil sands development

Under present-day conditions and technology, an estimated 178 billion barrels of oil can be extracted from Canada's oil sands, but this represents only 11 per cent of the total oil sands in three huge deposits: 'Unlike conventional crude oil, bitumen in Alberta's oil sands is a thick, tar-like substance that does not flow to a well. It takes about two tonnes of oil sands to produce a barrel of oil' (Government of Alberta 2006: 18). This rich resource will place Canada as the second largest producer of oil after Saudi Arabia. In 2004, 99 per cent of oil exports went to the United States (Tracey 2005). That market is expected to change with plans to sell more oil to China to fuel its growing economy. In 2004, production totalled over one million barrels a day, estimated to grow to 2.7 million barrels by 2015 (Taylor and Scambary 2005) and to 3.8 million by 2020 (Government of Alberta 2006). In 2006, 70 oil sands projects were under way or in the planning or development stages (Government of Alberta 2006). They are estimated to be worth $86 billion (Rigzone Reporter 2006).

Housing affordability in Fort McMurray

In 1981 the population of Fort McMurray was estimated to be around 30,000, in 2004 around 67,000, and by 2015 it is expected to climb to 100,000 (Taylor and Scambary 2005). The town is growing at a rate of just over 50 per cent every ten years. This has led to increased demand for housing and infrastructure, and a subsequent rise in property values and rents. Rents rose by an average of 25 per cent in 2005, making it 'the most expensive urban centre in which to rent across Canada' (Alberta Finance 2006):

> Information from the Fort McMurray Landlord and Tenants Advisory Board indicates the vacancy rate in the Fort McMurray urban area in October 2006 was at or approaching zero. The June 2006 vacancy rate for apartments was 0.37 percent. Economists consider a vacancy rate of three percent to be a reasonably balanced rental market in that supply and demand are balanced (Government of Alberta 2006: 49).

In 2005, the resale price of houses in the town increased by 33 per cent (Alberta Finance 2006), making them the highest in the province (Government of Alberta 2006). The availability of housing to rent or buy is so scarce as to be almost non-existent, with the 2006 deficit estimated at 3,900 units (Government of Alberta 2006: 49).

Essential services and infrastructure stress

The provincial government has identified a crisis in essential services and infrastructure (Government of Alberta 2006: 4), including housing, transportation, basic municipal infrastructure (including water treatment, waste water treatment and landfill), health care, education, social services, policing and environment.

Flow-on effects

The housing crisis has resulted in several flow-on effects to the community, in particular, the social cohesion of the town. The 'housing shortage is particularly acute in Fort McMurray and … compounds the challenge of attracting and retaining the necessary workforce, particularly in the public sector – teachers, police officers, social service workers, and health care providers' (Government of Alberta 2006: 6). There is also pressure on local businesses to retain staff due to a lack of affordable housing for low income earners and non-resource sector workers generally.

Between 2004 and 2006 there was a 24 per cent increase in homelessness. In 2006 35 per cent of the homeless were 'Aboriginal', down from 51 per cent in 2003 (Fort McMurray Housing Needs Count Committee 2003, 2006). The main reason was an

increase amongst young white males, rather than a decrease in Indigenous homelessness.

Government recommendations

The provincial government's 2006 report, *Investing in Our Future: Responding to the Rapid Growth of Oil Sands Development*, made several recommendations to deal with the impact of the resource boom. The first was that the government 'should place a high priority on the development of infrastructure necessary to support continued growth and development of the province's oil sands resource'. The report also recommended that 'sustainable development should be considered a business need'. On the question of housing affordability, it recommended that more land be released in a timely manner to meet the increased demand (Government of Alberta 2006: 8).

2.6   Summary

The resource sector boom is occurring in the context of housing cost increases across Australia and is contributing to pressure on housing markets, especially in Western Australia and Queensland. In the context of widespread concerns about housing affordability and extensive use of FIFO and DIDO labour, the housing issues are spatially diverse and impact differentially on housing markets in local towns, regional towns and cities and capital cities. It would appear that the impact and flow-on effects of the boom in Australia mirror similar outcomes in international settings such as Fort McMurray in Canada and coalfields in Britain and the United States.

The policy solutions of the past, such as requiring mining companies to develop towns or provide housing close to mines for their workforce, are often no longer seen as feasible or appropriate. This is a result of changes in the nature of the industry and changes in public policy, as well as social, economic and technological changes. There is a lack of consensus about how to deal with the housing impacts of the resource boom. These occur in the context of multiple and fragmented policy agendas and at the intersection of resource sector imperatives for flexible and cost-effective labour markets, housing market instability and concerns for social, economic and environmental sustainability. This points to the need for integrated policy frameworks or governance structures that clarify stakeholders' respective responsibilities, enabling them to work together to develop and implement appropriate solutions.

3 ANALYTICAL FRAMEWORK AND RESEARCH STRATEGY

3.1 Analytical framework

Understanding the interrelationship between housing and regional social and economic development relies upon identifying the dynamics between the labour market, the affordability, availability and appropriateness of housing, and the social and economic characteristics of regional and remote communities. The far-reaching socio-economic impacts of the resource boom vary according to local, regional, national and international factors and the actions of a diverse range of stakeholders.

Our initial findings based on a review of the research and policy literature indicate that housing markets in resource boom towns are dynamic, diverse and contextually specific. In this section we outline a range of the factors that contribute to the scale and nature of housing availability, affordability and appropriateness in specific contexts, and the sort of social, economic and environmental impacts that result from housing stress. An overview is also provided of the policy options available to manage the associated housing issues. This analysis draws together the findings from the first stage of this study and will provide the overarching framework for the remaining stages, case studies and analysis of policy implications.

3.1.1 Causal factors

It is possible to identify a number of factors that interact in various combinations in different contexts to generate housing outcomes. Table 1 classifies these according to key characteristics of housing and land markets, locational factors, mining industry activity and practices, and the public policy context.

Table 1: Causal factors impacting on housing dynamics in mining towns

Issues	Factors
Housing and land market conditions	→ Supply, type, condition, tenure and cost of existing housing
	→ Opportunities and constraints to increasing housing and land supply
Locational factors	→ Remoteness (distance from major centre)
	→ Other (non-mining) economic
	→ Competing housing demand activity
	→ Cultural, social or environmental context
Mining activity	→ Type of mining
	→ Scale of activity
	→ Single mine or multiple mines
Mining industry employment practices	→ FIFO / DIDO
	→ Direct employment or contracting
	→ Housing policies
Timing and sequencing	→ Development, operation or windup stages
	→ Projected life of project
Public policy context	→ Planning roles, responsibilities and structures
	→ Regulatory requirements
	→ Housing impact assessment processes
	→ Taxation
	→ Government housing assistance programs

The ability of local and regional housing markets to adequately and appropriately meet the additional demands generated by a resource boom is related to the nature of both the pre-existing market conditions and the opportunities for increasing housing and land supply. Even in favourable conditions, new land and housing development involves considerable time lags. The existing capacity of the housing market to absorb additional demand is therefore an important variable, particularly in regard to the rental market and temporary options such as caravan parks and camp grounds. Constraints on development in the form of land tenure, availability of water and sewerage infrastructure, land use restrictions, financial investment or building industry constraints can limit or block the supply of additional suitable housing.

The location of mines, proximity to major centres and other economic activity can impact on the confidence of residential developers and investors, especially where timeframes for the mining activity is short-term or there is uncertainty about ongoing housing demand. These factors also impact on the preparedness of workers and their families to relocate, therefore dampening demand for permanent housing in favour of short-term worker accommodation.

The overall scale and nature of the mining activity has a range of impacts on housing demand, including the accumulating impact where there are multiple mines in the vicinity. Company policies in regard to shift patterns, use of FIFO and contract labour, whether they provide accommodation assistance and the form that this takes are key factors. Provision of temporary singles accommodation, family housing or rent assistance will have different impacts on local and regional housing markets. The stage of the mining activity is also an important consideration as the housing impacts will be different at the construction, operation and wind-up stages. Finally, the housing impacts are affected by the policies of Commonwealth, state and local governments and how vigorously they are pursued to achieve housing outcomes. In combination, these shape the framework for analysing specific contexts to identify the range of factors implicated in the housing dynamics of specific mining towns.

3.1.2 Impacts of housing stress

The impacts of housing stress in mining towns are documented in impact assessments, research studies, government reports and media coverage of stakeholder views. These are summarised in Table 2 below. The most immediate impacts are that housing is not available for all who need it, housing costs cause hardship for residents, and/or many people are in housing that is inadequate, of poor condition, unsuitable, overcrowded, poorly located to community services or without access to essential services of power, water or sewerage.

Table 2: Impacts of housing stress in mining boom towns

Housing stress	→	Availability
	→	Affordability
	→	Appropriateness
Social	→	Health
	→	Law and order
	→	Social cohesion and dislocation
Economic	→	Staff attraction and retention in mining and non-mining industries
	→	Cost of infrastructure provision
Environmental	→	Competing land uses
	→	Water and waste

Housing stress in mining communities has a range of social impacts. A lack of supply and high costs may displace low income longer-term residents who are forced to relocate to another community in search of more affordable housing. Others, including those seeking work, may be forced to live in sub-standard housing. Large numbers of single workers in temporary congregate accommodation may create social discord through substance abuse, leading to health and law and order concerns.

The economic impacts of insufficient, expensive or inappropriate housing include difficulties for mining companies and for other industries and employers in attracting and retaining staff. Efforts to increase housing supply involve significant up-front costs to supply physical infrastructure such as water, sewerage and roads as well as social infrastructure. Provision of these services and pressure for residential development may also compete with other land uses and impact on environmental values. The nature of housing issues and the way they are managed in resource towns clearly has important and interrelated implications for the social, economic and environmental wellbeing of individuals, families, businesses and communities.

3.1.3 Policy options

An indication of the options available to stakeholders for better management planning and enabling better responses to housing issues in mining boom towns is summarised in Table 3. The various stakeholders have capacity and/or mandates for action to enhance knowledge about the nature of housing issues, improve planning to anticipate and mitigate housing problems, facilitate the supply of affordable and appropriate housing, or assist those negatively impacted by housing conditions.

Table 3: Options for addressing housing issues in mining towns

Mining companies	→ Provision of temporary on-site accommodation
	→ Provision of permanent employer housing
	→ Other employer housing assistance or subsidies
Housing market	→ Housing development
Local government	→ Planning mechanisms
	→ Advocacy
	→ Direct housing provision
	→ Land development
	→ Facilitating market responses
State government	→ Impact assessment and mitigation requirements
	→ Other regulatory requirements
	→ Land release and development
	→ Research
	→ Facilitating market responses
	→ Private housing assistance
	→ Social housing provision
Community and academia	→ Advocacy
	→ Research
	→ Social housing provision
Collaborative	→ Joint/shared research
	→ Collaborative local/regional planning processes
	→ Joint land and housing development ventures

While responsibility in some of these areas clearly sits within the ambit of particular players, there is much in the nature of researching, planning, facilitating and delivering housing solutions that is conducive to collaboration and joint action. These options will be tested for their relevance to the case studies and their broader applicability.

3.2 Research strategy

The research strategy involves a case study approach whose aims are to:

1. Collect qualitative and, to the extent possible, quantitative data regarding the nature of housing shortages and the impacts on:

   → Low income groups;

   → Indigenous people;

   → The capacity of the towns to attract and retain employees;

   → The level and range of services available in the community;

   → The capacity of resource companies to attract and retain employees and their families;

2. Identify factors that may be limiting the capacity of these towns to meet the increased demand for housing;

3. Document the strategies that stakeholders have implemented to address the issues of affordability, and assess their likely effectiveness.

The case study strategy will include a desktop analysis of previous housing needs assessments and reports and available data on trends in housing affordability, availability and population growth in the case study sites. The research team will seek to liaise with mining companies, industry associations and relevant state and local government agencies for briefing and support of the project. As well, consultation will be undertaken with key stakeholders at the local level. Finally, data gathering will be accomplished through investigative field trips to the selected resource boom towns of Kalgoorlie and Karratha in Western Australia and Emerald and Moranbah in Queensland. Residents and FIFO workers will be interviewed regarding their perceptions regarding the causal factors, the impacts and other key issues regarding housing and accommodation.

3.2.1 The Western Australian case study sites

Kalgoorlie

Kalgoorlie, approximately 600 kilometres east of Perth, was established in 1892 as a result of the gold rush. It has since become, in addition, an administrative town for the Goldfields region, a regional and national transport hub and an outback tourist destination. The town's main resource sector industries are gold and nickel mining. It is geographically connected to Boulder (as Perth is to Fremantle) and is 38 kilometres east of the mining town of Coolgardie. All towns within a 200 kilometres radius are connected to it through a web of regional roads.

While there are housing affordability concerns in Kalgoorlie, these are not as severe as in Karratha or the Pilbara mining towns in general. In Kalgoorlie, the market follows the national pattern of a rapid increase in the price of renting or buying housing, exacerbated by increased demand induced by high prices for resources commodities. The private sector and, to a lesser extent, government (including local government) have consistently invested in local property and housing markets, and there is a diversity of housing stock, albeit not enough in the current market.

Developing housing policies in isolation of other services, policies and plans is ineffective and costly. Increased housing demand exacerbates the critical issue of affordability. Some communities have experienced rises in rent and median house prices greater than metropolitan markets. Combined with accommodation shortages, this has been blamed for a range of social and economic dysfunctions (Bureau of Transport and Regional Economics 2006; Haslam McKenzie 2006; Piper 2005).

Karratha

The town of Karratha in the Pilbara region was established in 1968 by joint agreement with the Western Australian government and Hamersley Iron. Karratha has a number of satellite towns around it, all of which are within 50 kilometres and serve as resource housing towns. The exception is Roebourne town, 40 kilometres east, which is dominated by Aboriginal and public housing. The other towns are Dampier (14 kilometres west), Wickham (12 kilometres further east of Roebourne) and nearby Point Samson. All of the towns are constrained by mining leases or native title. Since 1968 Karratha has served as a centre of government for the Pilbara and as home to mine workers and associated industries and services. It was a product of the 1960s mining boom as Kalgoorlie was a product of the 1890s gold rush. The main resource sector industries in the region are iron ore, salt and liquefied natural gas.

There is a well known and well established serious housing crisis in Karratha (Pilbara Development Commission 2004, 2006, 2007). Not only is there a lack of affordable housing, there is a serious lack of available land and housing itself, with evidence of people living in caravans, tents and garages. In the July 2007 quarter, the average price of a four bedroom house to rent was $2,000 per week (Pilbara Development Commission 2007), and government agencies have been known to pay over $3,000 per week to secure accommodation for staff. The housing crisis has led to some people flouting regulations. Overcrowding, sub-letting, 'hot bedding' (several people using the same bed in shifts) and illegal occupation place a section of the population in a class of people who do not want to be 'seen' or counted by any authority, including the Australian Bureau of Statistics.

3.2.2   The Queensland case study sites

Moranbah

Moranbah is one of two main centres in the Belyando Shire which is located centrally in the Bowen Basin. It is a purpose-built mining town in the northern part of the shire, established in 1971 by the Utah Development Company Ltd. Under mining agreements between the state and the company, the land became Crown Land, with Utah being given special priority lease. Houses for workers and their families were constructed and the town grew rapidly throughout the 1970s and into the 1980s. As one of the key mining towns in the Bowen Basin, Moranbah has experienced fluctuations in growth related to changing mining conditions. This is evidenced by the shire population of approximately 10,830 in 1995 decreasing by 2001 to less than 10,000 due to a downturn and staffing changes in the industry, then steadily increasing to an estimated 11,185 in 2006 and projected to reach between 14,200 and 16,200 by 2011 (Department of Infrastructure and Planning 2007).

Moranbah is one of the Bowen Basin towns experiencing the most severe housing stress as a result of the mining boom. Prices and rents have increased dramatically, with median rent of $600 for a three bedroom house the highest in the Bowen Basin, and vacancy rates for all types of accommodation are extremely low. The housing market conditions are forcing lower income earners out of the market and creating a severe shortage of accommodation for the estimated 2,000 non-resident workers (Queensland Department of Housing 2007b).

Emerald

The town of Emerald is the main population centre of the Shire of Emerald, in the Bowen Basin. There is a diverse industry base including coal mining, grazing, agriculture (grain and cotton), horticulture (grapes and citrus) and gem fossicking. The shire spans 10,000 square kilometres and is well serviced by established transport networks including road, rail and air infrastructure.

The population in 2006 was 15,364, having grown steadily from 12,564 in 1996. Since 2002 Emerald Shire has experienced population growth of approximately 3% per annum and, while there is significant housing stress, it is less extreme than in other towns in the Bowen Basin. House and land prices appear relatively high, new dwelling approvals are increasing and, although rents have doubled in five years, they are considerably lower than in towns such as Moranbah. It appears that Emerald's more diverse economic base translates into housing conditions that are driven by different supply and demand factors than other Bowen Basin towns.

3.2.3 Data analysis

The researchers will carry out a statistical analysis of housing and population data, and use this to undertake a comparative analysis of the resource boom towns of Kalgoorlie, Karratha, Emerald and Moranbah. A range of secondary data sources will be analysed, including previous housing needs assessments and reports and data (including from the 2006 census) on trends in housing affordability, availability, economic activity and population characteristics and growth in the case study sites.

It should noted that the Australian Bureau of Statistics estimated that the 2006 census had a national net undercount of 2.7 per cent, with higher than national average undercounts in the Northern Territory (7.6 per cent), Queensland (3.7 per cent) and Western Australia (3.2 per cent) (ABS 2007). They calculated that the undercount was more significant in Indigenous communities and among young males aged 20 to 29. While there was not a regional breakdown, the undercount is more significant where there are higher populations of Indigenous people and young males, such as in the Pilbara town of Roebourne. Complicating the picture is the fact that the ABS does not specifically count FIFO workers, temporary stay workers, or families spatially split by work. This brings into question the reliability of the population count for communities such as Karratha with its higher than average populations of Indigenous people, FIFO and temporary stay workers, non-English-speaking migrant workers and young males. The census returns for the Roebourne collection districts are so unreliable that the research team has decided to undertake its own Indigenous census by residing in or close to Roebourne for three weeks.

3.2.4 Field work methods

The field work for will involve interviews with a wide range of stakeholders including individuals and organisations from local and state governments, regional economic and social development bodies, community organisations, business leaders, the mining industry, public and private housing providers, real estate agents and small business operators. Permanent residents, Indigenous people from outlying communities in the Shire of Roebourne, regular visitors such as FIFO and DIDO workers and former residents will be interviewed. Potential participants will be identified through key informants in local communities and using snowballing techniques. It is anticipated that networks with Aboriginal people in Roebourne will be further developed through the census information gathering exercise which will facilitate establishing grassroots and local connections.

All the interviews relating to housing market dynamics in the resource boom towns will probe the issues of affordability, availability and appropriateness of housing, the effectiveness of relevant planning procedures, and the capacity of governments and the private sector to deliver affordable housing. They will draw on a common set of questions under the following themes:

→ What are the characteristics of the local housing market and extent of housing problems?

→ What are the facilitators and impediments to increasing supply of housing in or near the town?

→ What are the social, economic and environmental impacts of the housing situation?

→ What local housing initiatives have been proposed or implemented in response to identified problems?

→ What state-wide policies or program initiatives assist or constrain local initiatives to manage housing problems?

→ What are the potential options to ameliorate the housing problems?

The interviewees will all be volunteers with the right to withdraw at any time. The interviews will be open-ended and semi-structured as many participants, especially Indigenous people, find formally structured interviews threatening. Open-ended interviews will also allow the interviewee to openly outline their perspective and raise any issues that they believe need to be addressed. This elicits richer information and allows for issues to be identified that may otherwise have been missed.

The researchers will undertake an analysis of field data that will employ the thematic method, in which overall patterns will be identified and related according to themes. This involves a rigorous process of relating the components of individual experience to form a comprehensive picture of collective experience. Participants/informants will not be identified or identifiable in the final research product.

The confidentiality of participants will be maintained at all stages of the process and none will be identifiable. They will have the right to withdraw at any time, will receive a transcript of any notes or recordings of interviews, and will have the right to correct or change any interview content.

3.3   Policy implications and dissemination

To assist in assessing the policy options identified and identifying those with potential application, we intend to engage with key stakeholders. State-based reference groups comprising government and industry representatives will be convened, if possible, to provide feedback on draft findings and recommendations.

Dissemination will involve a summary of the report outcomes delivered to stakeholders and briefings offered to key state government policy makers and the main industry organisations, including the Queensland Resources Council, Chamber of Minerals and Energy of Western Australia and Minerals Council of Australia.

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Australian Housing
and Urban Research Institute

Australian Housing and Urban Research Institute

Level 1 114 Flinders Street, Melbourne Victoria 3000

Phone +61 3 9660 2300 Fax +61 3 9663 5488

Email information@ahuri.edu.au Web www.ahuri.edu.au