Queensland

Building and Other Legislation Amendment Regulation (No. 2) 2010

Regulatory Impact Statement for SL 2010 No. 69

made under the

Building Act 1975
Sustainable Planning Act 2009

ATTACHMENT 4

REGULATORY IMPACT ASSESSMENT

Queensland Development Code –Temporary Accommodation Buildings and Structures

Draft final – 9 September 2008

This Regulatory Impact Statement (RIS) has been prepared in accordance with the requirements of the Queensland Government's *Regulatory Impact Statement Procedures and Requirements, 2005*.

TABLE OF CONTENTS

TABLES

FIGURES

GLOSSARY

ABARE	Australian Bureau of Agricultural and Resource Economics
ABS	Australian Bureau of Statistics
AS	Australian Standard
BAU	business as usual
BCA	Building Code of Australia
CD	collector's district
CEO	Chief Executive Officer
DIDO	drive-in drive-out
DIP	Department of Infrastructure and Planning
DLGPSR	Department of Local Government (now Department of Infrastructure and Planning), Sport and Recreation (now Department of Communities)
DMR	Department of Main Roads (now Department of Transport and Main Roads)
EPCM	engineering, procurement, construction and maintenance
FIFO	fly-in fly-out
FTE	full-time equivalent
LGA	local government area
MGA	Maroon Group
QDC	Queensland Development Code
RC	Regional Council
RIS	regulatory impact statement
SPQ	single person's quarters
TA	temporary accommodation

EXECUTIVE SUMMARY

This Regulatory Impact Statement (RIS) explains a proposal to regulate the construction of temporary accommodation buildings (TA buildings). The regulation would take the form of new mandatory parts of the *Queensland Development Code*, which are referenced by the *Building Regulation 2006.* The RIS reports an evaluation of the expected costs and benefits of the regulation and provides a basis for community comment on the proposal.

The proposed regulation is in response to community representations to Government and follow-up surveys and consultations conducted by the Department of Infrastructure and Planning. It is apparent from these reviews that the quality of TA buildings varies considerably. The pressures of rapid resource development, particularly in coal mining areas, have resulted in the use of TA buildings that do not meet the standards imposed by the *Building Code of Australia* (BCA), do not provide adequately for health, safety, amenity and sustainability, and are objectionable to local communities. The Government's policy objective is to respond to these concerns in a way that cost-effectively contributes to the health, safety, amenity and sustainability from the perspective of both the occupants of TA buildings, and the members of local communities that host TA buildings.

The key elements of the proposed regulation are to:

- limit the duration of an initial approval to 24 months and requires that the buildings be then removed, demolished or re-approved for a further period of no more than 24 months
- require compliance with the BCA, with the exception of energy efficiency requirements, which are replaced with specific requirements for the use of water saving devices, efficient lighting and low emissions water heaters
- improve the health and safety of TA buildings by providing for matters such as site drainage, the size and finishing of sleeping compartments, insect screens, dust control, outdoor space and weather protection
- imposing benchmarks for the provision of bathing, sanitary, kitchen, refrigeration, dining and communication facilities, and limit the maximum distance between sleeping compartments and facilities

There are significant exemptions where the accommodation is not provided as part of an employment or other commercial arrangement, such as a granny flat that is occupied privately while a house is constructed. These structures would need to comply with the BCA, except for the energy efficiency and sound insulation provisions.

The following stakeholder groups would be affected by the proposed regulation:

- TA residents are predominately males employed in the construction, maintenance, minerals exploration and drilling activities. At 30 June 2008 there were around 11,400 persons in the Bowen Basin, 1,220

persons in the Surat Basin and 3,000 persons in the North West Region living in temporary accommodation buildings.`

- TA hosts are the communities in which TA buildings are established. These are mostly in the local government areas of the Bowen and Surat Basins but include a broad sweep of regional and remote areas where project work cannot be easily serviced from established townships.
- TA clients ultimately pay the bills for TA services and are mainly mining and gas companies, Queensland Rail and the Department of Main Roads, or the engineering and construction companies that are contracted to provide construction, drilling and exploration services.
- TA suppliers and TA operators are specialist manufacturers of TA buildings and providers of catering, cleaning and management services.

TA residents will be the major beneficiaries of the proposed regulation, particularly in respect of the structural integrity of buildings, insect and dust control, outdoor space and weather protection, access to laundry facilities and toilets, and, on larger camps, reduced distances between sleeping compartments and dining facilities. The broad aim is to provide a set of accommodation benchmarks that are appropriate to the work environment, which generally involves physically demanding outdoor work, shifts of up to 12 hours, social isolation, limited time for more than meals, work and sleep, fatigue and a need for relaxation and uninterrupted sleep when off-shift.

TA hosts in the Bowen Basin will derive some benefit from the proposed regulations, particularly in clarifying the need to comply with the BCA and establishing benchmarks for dust control. However, the proposed regulation will not apply retrospectively, leaving Councils to use their discretion in applying other policy instruments – Council Planning Schemes and the related zoning and development approvals powers – to deal with the legacy of the accommodation shortages that emerged as the resources activity increased. This includes the prospect for extended use of outdated buildings with structural deficiencies, poor amenities and a range of adverse effects on host communities. The main solution to these legacy issues is growth in the total stock of accommodation allowing the gradual phasing out of inferior structures in the process.

The average incremental unit cost is indicatively estimated at $18/night and the aggregate cost at $15 million per year. There is considerable uncertainty about the unit cost ($/night) and it would vary considerably, depending on circumstances of particular camps. Costs are higher where compliance with the maximum distance provisions would require the duplication of communal dining rooms, bathrooms and toilets.

The incremental costs would be borne mainly by TA clients. However, a small share – possibly $1 million/year – would be borne by owners of existing TA buildings that would need to be modified before they can be re-used at another TA site that needs to be freshly approved.

1. TITLE

Title of subordinate legislation: *Building Regulation* 2006

Proposal: It is proposed that the regulation be amended to include a new part of the Queensland Development Code (QDC) to address the construction of temporary accommodation buildings.

Chapter 3 of this regulatory impact statement (RIS) provides an overview of the proposal.

2. INTRODUCTION

2.1 Purpose of a regulatory impact statement

Under the *Statutory Instruments Act* 1992, if a proposed regulation is likely to impose appreciable costs on the community or part of the community, a regulatory impact statement (RIS) must be prepared before the regulation is made.

A RIS is designed to determine whether a proposed regulation is the most efficient and effective way of achieving desired policy objectives. It does this by providing a mechanism by which the Government's policy deliberations are clearly documented and subject to public scrutiny.

The purpose of this document is therefore to explain the need for the proposed subordinate regulation and to present an evaluation of the likely costs and benefits that would flow from its adoption in comparison with other options explored.

All members of the community are invited to comment on the information presented in this RIS.

2.2 How to respond to this regulatory impact statement

The closing date for providing comment on this RIS is to be decided after Cabinet's consideration. Written submissions should be sent to:

Mail: PO Box 15009, City East, QLD 4002

or Fax: (07) 32371248

or Email: peter.rourke@dip.qld.gov au

Confidential information

If your submission contains information that you do not wish to be disclosed to others, please mark it 'Confidential'. Respondents wishing to make confidential submissions should be aware of the *Freedom of Information Act*. Under the Freedom of Information Act, the Department of Infrastructure and Planning ('the department' hereafter) must, on application, grant access to documents in its possession unless an exemption provision applies. For example, if a submission contains information about a person's affairs (his or her experiences relevant to a matter covered by this regulatory impact statement), and it is in the public interest to protect that person's privacy, the 'personal' information in that submission will not be accessible under the *Freedom of Information Act*.

Consideration of issues raised in response to the RIS

After the public comment period closes, the Government will consider issues raised by members of the community.

Further consultation may occur to address any concerns raised by the community before the development of a final position by the Government.

Further inquiries

Further inquiries can be made by calling Peter Rourke on telephone number (07) 323754020.

2.3 Consultation activities that informed this RIS

In drafting this RIS the department sought information and comment from a cross-section of stakeholders from both the public and private sectors, mainly by email and phone interview. The approximate sectoral breakdown is as follows:

- Industry – 13
- Unions, industry and professional bodies – 8
- Councils – 14
- Other state government agencies – 3

The department expresses its gratitude for the information and comment that stakeholders have provided.

3. BACKGROUND

3.1 Overview of the proposal

The proposal is to regulate the construction of temporary accommodation buildings (referred to as 'TA buildings' hereafter). It takes the form of new mandatory parts of the *Queensland Development Code*, which are referenced by the *Building Regulation* 2006.

What is a temporary accommodation building?'

The defining characteristics are that the building is (a) assessable under section 67 of the *Building Act* 1975, and (b) provides accommodation.

Section 67 of the Building Act 1975

Under section 67 of the *Building Act* 1975, a temporary building is a building for which the approval (a) limits the period that the building may remain in place, and (b) requires removal or demolition at the end of the period. However, the time that a building can remain on site is not defined under the current provisions.

The effect of recent amendments to the Act is to provide for the creation of two types of temporary building. The first is a temporary building that is subject to building assessment provisions that are specific to that particular type of temporary building. The second is a temporary building for which there are no such specific provisions. In the second case, the certifier must still be satisfied that the building work complies with matters such as structural soundness, safety, heath and amenity (See Appendix A for section 67 in full.).

Meaning of 'accommodation'

The proposed new code will define an accommodation building as a building that (a) contains a sleeping compartment, or (b) contains a facility that is required by the regulation to service a sleeping compartment, such as a laundry, bathroom or kitchen.

Nature of the requirements for buildings that are part of a commercial or employment relationship

The code applies fully to TA buildings that are part of a workplace arrangement or where a fee is paid. Appendix E contains the proposals. The following are summary statements of the proposals under each of the main headings.

1. Building standards

This part limits the duration of an initial approval to 24 months and requires that the buildings be then removed, demolished or re-approved for a further period of no more than 24 months. Re-approval is subject to a reassessment for compliance with the regulations.

2. Health and amenity

The site requirements provide for health and privacy by requiring (a) construction on a suitable raised base, or (b) compliance with the drainage provisions of the *Building Code of Australia*, and (c) minimum separation from industrial or development activity (45 metres)

Sleeping compartments must be of a minimum size (5.6 sqm per bed), separated by walls that extend from floor to ceiling, and contain at least a double power outlet.

The materials and sealing of internal walls must be of a standard that preserves hygienic conditions, preventing the harbouring of pests and the accumulation of dust, litter, moisture and waste. Fibre cement sheeting and plasterboard are acceptable solutions.

Openings such as windows and doors must be protected from flying insects. Screens are an acceptable solution.

Surrounding areas must be covered to minimise airborne dust. Vegetation, coarse aggregate and sealed surfaces are acceptable solutions.

Vehicle access arrangements such as on-site roads and parking bays must comply with the standard for parking facilities (AS 2890.1-1993) if the approval is for more than six months or the building provides more than 100 beds.

Suitable outdoor space must be provided for recreational use. An acceptable solution is to provide a combination of verandas (6.3 sqm per sleeping compartment) and outdoor space (30 sqm per 20 compartments, within 45 metres).

Paths between sleeping compartments and common facilities must be covered walkways or otherwise protected from the elements. Common facilities are entertainment rooms, foyers, lounge rooms, dining rooms, kitchens, laundries and the like.

3. Facilities

There is a series of requirements to provide adequate bathing, sanitary, kitchen, refrigeration, dining and communication facilities. Where individual facilities are not provided in sleeping compartments, acceptable solutions generally require:

- maximum distances from sleeping compartments to facilities – 20 metres for bathing and sanitary, 45 metres for laundry, 20 metres for refrigerator, 70 metres for dining areas
- minimum ratios of facilities to sleeping compartments – one storage unit per resident, one automatic washing machine per 8 beds, one fixed tub with hot and cold water per 20 beds, one 500 litre refrigerator per 20 beds, one seat in the dining facilities per resident, 600 mm of dining table per bed, 18.4 sqm of dining area per 20 residents, one internet facility per 25 beds, one communal telephone per 100 beds
- power points in laundry, kitchen, bathing and sanitary facilities

4. Sustainable building measures

Acceptable solutions to the energy and water efficiency requirements are that:

- fluorescent lighting is used, including compact fluorescent lamps
- water heaters are a combination of solar, gas and electric heat pump
- water pressure limiting devices are installed
- water-saving toilet cisterns and shower heads are installed.

5. Full compliance with the Building Code of Australia (BCA)

The TA building must also comply with all provisions of the BCA relevant to that class of building, except those relating to energy efficiency.

Nature of the requirements for TA buildings that are not part of a commercial or employment relationship

The regulatory proposal is significantly less demanding for TA buildings that are not provided for payment of a fee or as part of an employer-employee relationship. For example, the lesser requirements apply where a family member lives in a temporary "granny flat" while permanent facilities are constructed. The requirements under these circumstances are that:

- The initial approval is for 24 months and requires that the buildings be then removed, demolished or re-approved for a further period of no more than 24 months. Re-approval is subject to a reassessment for compliance with the regulations.
- The building must comply with all provisions of the BCA that relate to that class of building, except those relating to sound transmission and insulation, and energy efficiency.

Performance based approach

The proposed regulations are performance based. This means that, while the regulations specify acceptable solutions that are 'deemed to satisfy' the performance criteria, they also provide scope for TA suppliers to devise 'alternative solutions' that deliver the required performance. Any alternative solution must be approved by the building certifier before it can be applied to the building or structure.

3.2 History and development of the proposal

Economic background

TA buildings are generally used to meet the relatively short-term needs for worker accommodation during the construction phase of projects. Arguably, 'light-handed' regulation of building standards is appropriate, providing certifiers with the discretion to depart from the building standards that apply to permanent buildings. Normally TA buildings would be dismantled and removed after a relative short period: an approval period of 24 months is generally adequate.

However, the situation has arisen in Queensland's coal mining areas in particular, and to a lesser extent in non-mining areas, where TA buildings remain in place indefinitely. The economic background is as follows.

- The attributes of Queensland coal are such that Queensland specialises in the export of high quality metallurgical coal (ABARE 2006: page 1).
- Queensland is in a very strong position to supply the rapidly growing Asian markets (ABARE 2006: page 40). ABARE projects that Australia's exports of metallurgical coal will increase by almost 70% in the 20 years to 2025, including a 40% increase in the period 2005 to 2013 (ABARE 2006: page 36).
- The rapid growth of world coal consumption was largely unforeseen and Queensland's capacity to respond has been hampered by physical constraints on the mining, transport and handling of coal (ABARE 2006: page 1). Despite the demand, Queensland's production of raw coal was only fractionally higher in 2007 than in 2005. That is, current capacity is fully committed.
- Production capacity needs to exceed projected production levels by about 10%, to handle normal fluctuations in demand.
- Consequently, there was the prospect of an increase in levels of construction work in Queensland's coal mining basins. The ABARE project list, for April 2007 (ABARE 2008), refers to:
  - seven coal mining projects that are under construction and are due for completion in the period to 2009
  - another 19 uncommitted coal mining projects in various stages of planning
  - six coal infrastructure projects due for completion in the period to 2009
  - another 15 uncommitted coal infrastructure projects in various stages of planning
  - two coal seam methane projects that are committed and due for completion in 2009 and 2010.
- Increased activity was most pronounced in Queensland's coal basins but not confined to those areas. Elsewhere in Queensland, ABARE's project list includes nine non-coal projects that were under construction in November 2007 and another 23 uncommitted non-coal projects in various stages of planning.

Other considerations are that:

- Increased use of FIFO and DIDO (fly-in/fly-out and drive-in/drive-out) arrangements for mining workers means that there is extended use of accommodation camps that, historically, have been confined to the construction phase.
- Despite large increases in property and rental values throughout the coal mining basins, investment in conventional housing is hampered by investor uncertainty about the longer term demand for such housing in many areas.
- The resources boom was not confined to Queensland coal but

extended to the gas, petroleum and minerals sector in all other states, particularly Western Australia. This created a shortage of TA buildings and resulted in extended use of outdated stock.

Overall, the coal boom created intense regional competition for labour and capital resources[1] and the prospect of TA buildings being used for long-term accommodation is one of several outcomes of concern.

Investigation of concerns about sub-standard TA buildings

The coal mining communities put their concerns about TA buildings to the Government at the Mackay Community Cabinet[2] meeting of March 2006. These are multi-faceted concerns and go beyond matters relating to accommodation standards. For example, they include concerns about the broader impact of labour and capital shortages on housing affordability, the incidence of uncertified accommodation and the cost of inputs to the non-mining sector, particularly in circumstances where new accommodation is organised in enclaves that may be socially disruptive, but provide little economic benefit for local communities.

To better understand the issues relating to accommodation standards, the Department of Infrastructure and Planning (referred to as 'the department' hereafter) conducted a field survey over five days in March 2007. The field survey included inspection of mining accommodation camps, site and telephone interviews with council mayors, council CEOs, representatives of government agencies, unions and the mining industry, and suppliers of TA buildings. Site visits covered the Bowen Basin shires of Banana, Belyando, Broadsound, Duaringa, Emerald, Nebo, Peak Downs and Sarina. These local government areas have since been variously amalgamated into the Regional Councils of Central Highlands, Isaacs and Mackay.

The field survey found that:

- TA buildings are remaining in place for extended periods without ongoing approvals.
- There were obvious deficiencies in the standard of construction.
- The facilities available to residents seemed inadequate and there were no benchmarks for judging their adequacy.
- TA buildings had adverse effects on host communities.

Response to the issue

The prospect of long-term and widespread use of TA buildings means that issues associated with their use, such as those documented in the field survey, will also be long-term and widespread. The minister decided that it is

[1] It is acknowledged that the economic dynamics of the coal boom are not fully understood. We note that the Australian Coal Association Research Program (ACARP) is currently funding a research project that aims to develop regional models for housing and labour patterns, enabling better predictions to be made about the next phases of the coal boom. This is a two-year project headed by John Rolfe, Professor of Economic Development at the Central Queensland University. It will report in April 2009.

[2] At Community Cabinet functions, individuals and community groups are able to make formal deputations to ministers or chat informally at a community gathering.

inappropriate to continue with the light-handed regulatory approach that has applied to TA buildings that, historically, were genuinely temporary.

A draft standard for possible inclusion in the QDC was circulated to key industry stakeholders for consultation from 12 to 22 June 2007. The department also consulted other government agencies and the Building Industry Consultative Group about possible effects on their operations. A revised proposal was developed in response to feedback and follow-up consultation, and is the subject of this RIS.

Section 67 of the *Building Act* 1975 has recently been amended to provide for the regulation of TA buildings via the QDC. Previously, section 67 exempted TA buildings from the explicit provisions of the QDC and the BCA. It required only that the certifier be satisfied in relation to matters like structural soundness, safety, heath and amenity. The results of the field survey indicate that these exemptions are no longer appropriate.

3.3 Appreciable costs

Chapter 10 reports our analysis of the costs and benefits of the proposal. It is clear from this analysis that the regulation may impose significant costs on providers of temporary accommodation. The department considers that these costs are 'appreciable' in the sense that they are sufficient to trigger the requirement to provide a RIS.

3.4 Stakeholder profiles

The department profiled stakeholders by interview and by reviewing the available survey and census data on the use of both temporary accommodation and staff-quarters. See appendices B and C for a detailed explanation of this work and the results. The main findings are as follows.

- TA residents: The department considers that, throughout Queensland, there would be no more than 3000 people living in TA buildings as part of an employment relationship or under some other commercial arrangement.
- TA host communities: Table 1 indicates the types of regional locations where TA is required from time to time, based on the prevalence of male dominated staff-quarters at the 2006 census. (Note that the census data is for both temporary and permanent staff quarters.) Councils in the Bowen basin are fully aware of the issues addressed by the proposed regulation and broadly concur with the findings of the 2007 departmental survey. Councils in the Surat basin are aware that the accommodation issue in 'moving south' from the Bowen to the Surat basin but will take on characteristics associated with gas exploration and development rather than coal. Councils in other parts of the state seem to be less concerned about adverse impacts of TA. Whereas TA is hosted by small urban centres in the Bowen and Surat basins, the pattern in other LGAs is for TA to be used on a smaller scale and in remote locations that cannot be easily serviced by from existing townships.

Table 1 List of likely TA host communities

Old council name	*New council name*	*2006 census count of people in staff quarters, both temporary and permanent*	
		People	*(%)*
	Bowen Basin		
Nebo (S)	Isaac RC	2,012	20.3%
Broadsound (S)	Isaac RC	1,398	14.1%
Duaringa (S)	Central Highlands RC	1,117	11.3%
Peak Downs (S)	Central Highlands RC	901	9.1%
Belyando (S)	Isaac RC	476	4.8%
Banana (S)	Banana RC	312	3.2%
Bauhinia (S)	Central Highlands RC	149	1.5%
Emerald (S)	Central Highlands RC	125	1.3%
Sub-total		**6,490**	**65.5%**
	Surat Basin		
Chinchilla (S)	Dalby RC	466	4.7%
Bungil (S)	Roma RC	192	1.9%
Murilla (S)	Dalby RC	26	0.3%
Warroo (S)	Roma RC	21	0.2%
Sub-total		**705**	**7.1%**
	North West		
Cloncurry (S)	Cloncurry (S)	606	6.1%
McKinlay (S)	McKinlay (S)	442	4.5%
Burke (S)	Burke (S)	422	4.3%
Richmond (S)	Richmond (S)	8	0.1%
Sub-total		**1,478**	**14.9%**
	North and Far North		
Etheridge (S)	Etheridge (S)	168	1.7%
Dalrymple (S)	Charters Towers RC	158	1.6%
Weipa (T)	Weipa (T)	148	1.5%
Hope Vale (S)	Hope Vale (S)	55	0.6%
Sub-total		**529**	**5.3%**
	Central West		
Barcoo (S)	Barcoo (S)	43	0.4%
Boulia (S)	Boulia (S)	24	0.2%
Barcaldine (S)	Barcaldine RC	28	0.3%
Aramac (S)	Barcaldine RC	10	0.1%
Jericho (S)	Barcaldine RC	3	0.03%
Tambo (S)	Blackall RC	3	0.03%
Sub-total		**111**	**1.1%**
	South West		
Quilpie (S)	Quilpie (S)	241	2.4%
Bulloo (S)	Bulloo (S)	206	2.1%
Paroo (S)	Paroo (S)	37	0.4%
Balonne (S)	Balonne (S)	25	0.3%
Sub-total		**509**	**5.1%**
	Other		
Crow's Nest (S)	Toowoomba RC	77	0.8%
Monto (S)	North Burnett RC	3	0.03%
Total		**9,902**	**100.0%**

- TA clients are the parties that ultimately pay the bills for TA.
  - The main public sector clients are local councils, the Department of Main Roads (DMR) and Queensland Rail. Their road workers' camps are relatively small, mostly less than 20 workers. The rail workers' camps are somewhat larger, at 50-100 workers.
  - Private sector clients use TA buildings mainly to accommodate contractors who provide 'non-operational' services such as exploration, drilling or construction services. Workers' camps for exploration, drilling and maintenance gangs tend to be small, at no more than 20 workers, but construction workforces can be large, at 'several hundred'.

  TA for construction workers is often organised by engineering and construction companies, including specialist providers of project management and EPCM (engineering, procurement, construction and maintenance) services. In turn, these companies are under contract to companies in the mining, petroleum and infrastructure sectors.
- TA suppliers are the companies that manufacture and install TA buildings. The following manufacturers of relocatable buildings have been identified as active in Queensland but with varying involvement in the supply of TA buildings.
  - Atco Structures
  - Ausco Modular
  - Maroon Group (MGA)
  - Nomad Modular Building
  - The MAC Services Group (The MAC)
- TA operators are the companies that provide cleaning and catering services, manage the site and pay the utility bills, either on a contractual basis or as owners and operators of TA camps. The cost of providing these services is sensitive to the design of TA buildings and the configuration of TA camps. The following operators have been identified as active in Queensland.
  - Cater Care Services
  - Compass Catering and Services
  - Morris Corporation
  - Remote Infrastructure Management Corporation (Rimcorp)

  Two suppliers, MGA and The MAC, are also TA operators.
- Planning, design and certification professionals: The proposed regulations would need to be integrated with the professional work of designing TA buildings and sites, mostly involving the management, engineering and building professionals employed by TA clients, suppliers, operators and host councils. Geoff Mitchell Associates (GMA) is a building certification company that plays a significant role in the process.

3.5 Timeframes

Timeframes for any legislative changes to allow for the introduction of the new standards will not be decided until full public consultation and feedback on the RIS has been finalised. This is unlikely to occur before 2009.

4. AUTHORISING LAW

The QDC consolidates Queensland-specific building standards into one document. The code covers Queensland matters outside the scope of, and in addition to, the *Building Code of Australia*. The QDC is defined in Section 13 of the *Building Act* 1975 (the BA). Section 13 also provides the means for amending the QDC.

Section 30 of the BA details the building assessment provisions that all building work must be assessed against.

Section 67 (2) of the BA requires a temporary building or structure to comply with specific building assessment provisions if mentioned in section 30. If specific provisions do not apply, the temporary building or structure must comply with section 67(3) of the BA (refer to Appendix A).

Section 261 of the BA provides for the making of regulations with respect to:

- building work
- the occupation of buildings
- building certification
- fees and penalties
- record keeping

The *Building Regulation* 2006 is made under section 261 and references the QDC.

5. POLICY OBJECTIVES

On the evidence of community representations to Government and follow-up surveys and consultations conducted by the department, it is apparent that the quality of TA buildings varies considerably. The pressures of rapid resource development, particularly in coal-mining areas, have resulted in the use of TA buildings that do not meet the standards imposed by the BCA, do not provide adequately for health, safety, amenity and sustainability, and are objectionable to local communities. The Government's policy objective is to respond to these concerns in a way that cost-effectively contributes to the health, safety, amenity and sustainability from the perspective of both the occupants of TA buildings, and the members of local communities that host TA buildings.

6. LEGISLATIVE INTENT

The legislative intent is to impose a legal obligation on TA operators to provide minimum standards of health, safety, amenity and sustainability from the perspective of both the occupants of TA buildings and the members of local communities that host TA buildings.

The legislative approach is considered reasonable and appropriate because these are important government objectives and there is no other feasible means of improving minimum standards. The department has taken the following matters into account.

- The proposed measures use the regulatory machinery that is well-understood and accepted by industry, that is, the Building Code of Australia, the Queensland Development Code and Australian Standards.
- Individual councils may wish to impose more stringent development conditions but are sensitive to criticism that they are impeding economic development or increasing costs by contributing to a patchwork of differing standards across the state.
- Given the number and diversity of the parties involved, there is no prospect of achieving the desired outcomes by voluntary agreement.

7. CONSISTENCY WITH THE AUTHORISING LAW

The policy objectives of the *Building Act* 1975 and its subordinate legislation include safeguarding the health, safety, amenity and sustainability of the community from building fires, structural failures, defective design and materials and the like.

The proposed measures would contribute to the health and safety objectives by:

- mandating compliance with the BCA, with some exceptions
- requiring construction materials and methods that help to preserve hygienic conditions, for example, by resisting the accumulation of moisture, dirt and the entry of flying insects
- requiring environmental measures that reduce airborne dust and provide adequate drainage

The proposed measures would contribute to the amenity and sustainability objectives by:

- imposing minimum space requirements, for example, in the size of sleeping quarters, dining, outdoor and recreational facilities
- providing for reasonable access to common bathrooms, laundries and dining rooms, in terms of distance from sleeping quarters and protection from the elements
- imposing minimum requirements for access to storage, refrigeration, communications and laundry facilities
- requiring the use of energy and water saving devices and appliances.

8. CONSISTENCY WITH OTHER LEGISLATION

The department is not aware of any inconsistency between the proposed measures and other state legislation. It is noted that, at the request of Treasury, the department has consulted other government agencies about possible effects on their operations. Some matters were raised and have been factored into the revised proposal, but none were matters of legislative inconsistency.

The proposed measures are state legislation and have precedence over any provisions in the BCA and building assessment provisions in local laws' or planning instruments that apply to TA buildings. This is to ensure that the state interest is addressed and there is a uniform and consistent approach throughout the state to the standards that apply to TA buildings. To explain, local governments can use local laws or planning instruments to establish permit or licence regimes for activities they want to regulate, to create offences for unacceptable behaviour and to allow for the issue of compliance or abatement notices. Several local governments have made local laws for 'rental accommodation with shared facilities' that may apply to TA buildings. These laws are based on the Department of Local Government's model local law No 16 – *Rental Accommodation with Shared Facilities*[3]. The conditions imposed by local governments are less demanding than the proposed measures. The following requirements are typical.

- Licences must be renewed annually.
- Bedrooms and dormitories: These requirements seem to target backpacker accommodation and provide for a clean and comfortable bed for every occupant, 0.03 sqm of cupboard space per person, one towel rail per person, a maximum of 2-tier beds and minimum ceiling clearance for the upper bed.
- Kitchens: In addition to requirements for hygiene and adequate utensils, the laws typically require four hotplates and one oven for each 15 people, fridge space of 15 litres per person, one stainless steel sink per 15 people, and 0.015 sqm of cupboard space per person.
- Dining: A dining room must be provided under the same roof as the kitchen, including seating for 50% of the maximum number of occupants.
- Living rooms: One or more common living rooms must be provided at the rate of 2 sqm per person.
- Toilets and ablution facilities: in accordance with the BCA.
- Laundries: one wash tub and one washing machine per 15 people.
- Communications: emergency telephone service to be available when the office is closed
- Rubbish disposal: one 240 litre bin per six people, and weekly disposal

[3] Model local laws are published on the website of the Department of Local Government, Sport and Recreation – http://www.localgovernment.qld.gov.au/?id=6625

- Maintenance: grounds to be maintained in good repair and in a clean and sanitary condition, including annual vermin control measures
- Storage: secure storage for occupants' valuables and papers and a security lock-up for bulky packs and luggage
- Fire safety: in accordance with the BCA

Operators are also required to keep an accommodation register and have a representative on the premises who is available for emergency contact at night.

9. OPTIONS AND ALTERNATIVES

Shortlisted policy options

The department has shortlisted two policy options. One is the business as usual (BAU) and the other is the proposed regulation. The cost-benefit analysis (chapter 10) is essentially a comparison of these two options.

The BAU option is sometimes called the 'do-nothing' option, but it does not necessarily follow that accommodation standards would not change in the absence of the proposed regulation. Accommodation standards may change in response to competition for labour and more stringent development conditions imposed by councils. It is apparent that competition for labour has already improved some personal amenities for TA residents, particularly in terms of the provision of ensuites and storage facilities, the size of sleeping quarters and the provision of refrigeration, storage and communication. However, the department understands that other elements of the proposed regulation that would not be generally provided under BAU conditions, for example, sheltered pathways and maximum distance between sleeping quarters and dining facilities.

Other options

The department has identified but rejected the following policy options.

- Information, education and advisory measures: The department has not given serious consideration to information-based approaches, mainly because there is no reason to believe that (a) stakeholders are not well-informed about variation in accommodation standards and options for improving accommodation standards, or (b) that they would respond to better information to improving accommodation standards.
- Voluntary industry code: The department could initiate a process of consultation, aiming to develop a set of minimum standards that are broadly endorsed by all stakeholders. They would have some effect, if only because they provide TA clients with a ready-made and broadly understood means of specifying requirements when negotiating and contracting for the supply of TA buildings and TA services. However, the department considers that it cannot confidently recommend such an approach on account of (a) the inevitable delay in taking effective action, (b) uncertainty about effectiveness, and (c) the lack of any machinery for monitoring compliance and endorsing claims of compliance with such a code.

The department invites comment on whether these or other policy options should be further considered or examined in more detail.

It is noted, for example, that a TA operator suggested many of the problems associated with the operation of workers' camps could be avoided if TA clients gave more attention to accommodation at the planning stage. Accommodation is the 'first need but the last considered'. Procedural reforms are needed,

encouraging TA clients to consult TA operators, TA residents and TA hosts – who are the parties that will eventually run and experience the camp – from an early stage in project development.

10. COST-BENEFIT ASSESSMENT

This chapter is organised under six headings, dealing with estimates of the increase in unit costs for newly constructed TA services (section 10.1), the increase in unit costs where existing TA assets are re-deployed (10.2), aggregate costs (10.3), the distribution of costs between stakeholders (10.4), the expected benefits for TA residents (10.5) and TA hosts (10.6).

10.1 Increase in the unit cost of new TA services

This section gives a qualitative account of the incremental cost where newly constructed TA services are being provided, and reports indicative estimates of the incremental unit cost ($/night). But it first explains that there is unavoidable uncertainty about the cost increases at this stage.

Uncertainty about costs

The department consulted with TA suppliers and operators about the likely cost of the proposed regulation. They said that the costs would be significant, but that to develop reasonably detailed estimates it would be necessary to undertake hypothetical exercises in redesigning a small sample of existing TA sites for compliance with the proposed regulation. That would (a) involve consultation with their suppliers and clients about how best to respond to the proposed measures in a given situation and (b) resolve uncertainty about the following matters.

- TA suppliers will look for ways to reconfigure the TA site to reduce costs. For example, compliance with maximum distance requirements may be achieved by increasing building density rather than incurring the cost of providing additional laundries, dining or other facilities.
- The TA client may claw back some costs by trimming unregulated aspects of TA services. For example, the client may reduce the quality of catering and cleaning services or the quality of the fixtures and fittings that are provided.

The task is further complicated by several lesser but still significant variables.

- Period of operation: The value of immobile assets, such as ground cover, sealed paths and drainage works, is written off when TA buildings are moved to another site. These costs are therefore higher in situations where periods of operation are relatively short and TA buildings are moved more frequently. Some workers' camps – in mineral and gas exploration, drilling and road works – may be occupied for no more than a few weeks or a few months.
- Site characteristics: Incremental costs are higher for more remote sites and where opportunities to reconfigure the layout of the site are constrained by its shape.
- Use of alternative building solutions: The proposed regulations are performance based. This means that, while the regulations specify acceptable solutions that are 'deemed to satisfy' the performance criteria, TA suppliers may devise 'alternative solutions' that deliver the

required performance. For example:

- The performance criteria for dust control provide for the modification of dust control measures depending on the duration of the TA approval.
- The outdoor amenity criterion provides for 'suitable' outdoor space and, plausibly, may allow for shiftwork arrangements on the need for recreation facilities.
- The weather protection criterion provides for paths to be suitably protected from weather. Possibly, less stringent solutions may be acceptable in regions with low rainfall.
- The performance criteria for laundry, kitchen, refrigeration and dining facilities all refer to 'adequate facilities'.

Any alternative solution must be submitted to an approved by the building certifier for the work before it can be applied to the building or structure. It is difficult to anticipate the impact of alternative solutions on the cost of the measures but, on experience, it is reasonable to expect that alternative solutions will be forthcoming and that they will considerably moderate the cost of the proposed regulations.

- Use of alternative accommodation options: The least cost response to the proposed regulations will sometimes be to abandon a TA proposal and adopt an alternative accommodation option, such as daily commuting from permanent accommodation in the nearest town. The availability of alternative accommodation options depends on circumstances, for example, distance to neighbouring towns in remote areas and availability of suitable accommodation even if such towns are workably close.
- Reduction in certifier discretion: The proposed regulation makes clear that TA buildings must comply with the BCA, removing the discretion that certifiers now have to depart somewhat from the building standards that apply to permanent buildings. The department has not been able to assess the impact of this change. This is because TA suppliers, in all discussions with the department, have indicated that their products comply with the BCA and seem generally unconcerned that this discretion has been removed.

Finally, the business-as-usual (BAU) situation is not static. TA suppliers tell us that the standards of TA accommodation have increased significantly in response to a combination of market forces and more demanding approvals processes. For example, sleeping quarters for mining and construction workers now have an ensuite and easily comply with the proposed minimum size requirements. Building certifiers are increasingly disinclined to provide development concessions for buildings that may operate for a limited period.

Qualitative assessment of the cost of implementing the acceptable solutions

TA suppliers and operators have emphasised the uncertainties but say that there will be increased costs in all stages of supplying TA services: higher off-site cost of materials and buildings delivered to the site, higher on-site costs of construction, demolition, removal and rehabilitation, and higher operating costs. Appendix D provides a summary of their comments on the cost of implementing the acceptable solutions. The key messages from Appendix D are as follows.

- TA suppliers and operators are concerned about the cost of the requirements for weather protection and the provision of dining facilities. They say that these can require significant changes to the mix and layout of buildings on the TA site, triggering a search for alternative building solutions and consideration of alternative accommodation options.
- There are likely to be moderate costs associated with pest control, dust control, wider verandas, better access to bathing and sanitary facilities on smaller camps, more generous provision of laundry facilities and the replacement of electric water heaters with heat pumps. These will be noticeable changes but will not require any substantial change to current design and construction approaches.
- There will also be several relatively minor costs associated with timely demolition and removal of buildings, vehicle access arrangements and the dimensions of shower and storage units. These measures will require no more than some 'tweaking' of current building designs and construction practices.

It is important to remember that the impacts are variable, depending on the period of operation and the characteristics of the TA site. The cost of the acceptable solutions will tend to be higher for (a) larger camps, particularly in complying with the maximum distance requirements, (b) camps with shorter operating periods, since there will be more frequent scrapping of immobile assets, and (c) more remote camps that incur higher costs for transport and labour.

Indicative estimates of the cost of implementing the acceptable solutions

As noted already, TA suppliers and operators say that the cost of the proposed regulations can only be estimated by taking a small sample of recently constructed TA sites and determining how they would have been configured if the proposed regulations had applied historically, including consultation with their suppliers and customers about least cost solutions. This is not a trivial undertaking and has not been done at this stage. For the purposes of consultation, however, Table 2 provides indicative estimates. These estimates are somewhat impressionistic interpretations of the feedback that TA suppliers and operators provided to the department during phone interviews.

Our approach to costing has been to obtain a rough breakdown of the costs recovered by accommodation charges and estimate cost impacts as proportions of relevant cost 'building blocks'. Elements of this breakdown are reported in Table 2. Specifically, the table reports the elements of accommodation charges needed to recover capital and operating expenses, with a further breakdown of the capital component between off-site and on-site capital. The department has not reported the more detailed breakdowns used to construct these estimates but, if the approach proves useful, will make them available for further consultations with TA suppliers and operators.

Panel A of Table 2 reports our reference case, which is the baseline accommodation charge in $/night. This is the expected charge under normal market conditions, that is, ignoring the premiums that are paid when

Table 2 Indicative estimates of incremental cost ($/night)

	*Return of and return on capital expenses**		*Operating expenses*	*Total*	*% increase*
	Off-site capex, includes transport	*On-site capex*			
A. Baseline charges ($/night, excluding scarcity premium)					
With ensuite (larger camp)	$40	$25	$45	$110	
Without ensuite (smaller camp)	$35	$22	$43	$100	
B. Incremental charges due to the regulation, by item ($/night)					
Door screens (A7)	$0.30	$0.00	$0.60	$0.90	
Dust control (A8)	$0.20	$0.10	$0.00	$0.30	
Wider verandas (A10)	$1.50	$0.20	$0.00	$1.70	
Covered/wider pathways (A11)	$2.40	$2.30	$0.00	$4.70	
Duplication of bathing & sanitary facilities (A12)	$10.40	$6.40	$0.00	$16.80	
Minimum laundry facilities (A13)	$2.80	$1.70	$0.00	$4.50	
Additional dining facilities (A16, a&b)	$0.70	$0.50	$0.00	$1.20	
Duplication of kitchen and dining facilities (A16, c)	$1.40	$0.80	$17.50	$19.70	
Replacement of electric water heaters with heat pumps (A19,b)	$0.40	$0.00	-$0.30	$0.10	
C. All incremental charges ($/night)					
With ensuite	$9.70	$5.60	$17.80	$33.10	30%
Without ensuite	$20.10	$12.00	$17.80	$49.90	50%
D. Incremental charges, excluding: duplication of kitchen and dining facilities ($/night)					
With ensuite	$8.30	$4.80	$0.30	$13.40	12%
Without ensuite	$18.70	$11.20	$0.30	$30.20	30%
E. Incremental charges, excluding: duplication of kitchen and dining facilities, duplication of bathing and sanitary facilities ($/night)					
With ensuite	- no change from panel D** -				
Without ensuite	$8.30	$4.80	$0.30	$13.40	13%
F. Incremental charges, excluding: duplication of kitchen facilities, duplication of bathing and sanitary facilities, dust control, covered/wider pathways ($/night)					
With ensuite	$5.90	$2.50	$0.30	$8.70	8%
Without ensuite	$5.90	$2.50	$0.30	$8.70	9%

Note:
* The charges paid to recover capital expenses may be regarded as (a) providing for the recovery (return of) the owner's capital expense, and (b) also providing a return on the capital that has been invested. We do not know the rate of return but can deduce the capital charge by subtracting a reasonable allowance for operating expenses, which is generally in the range of $40-$50/night. The operating expenses are for catering, cleaning, management and utilities.
** TA services with ensuites do not have communal bathing and sanitary facilities.

accommodation is scarce. The department understands that the 'normal market charges' would be about $100/night for 'basic standard' accommodation and assume that, other things given, charges are somewhat higher where sleeping quarters have ensuites rather than communal bathrooms and toilets. These charges are put at $110/night and $100/night for TA services, with and without ensuites respectively.

Panel B reports estimates of costs that TA suppliers and operators identified as 'not minor'. Note that:

- the largest incremental costs are incurred where the proposed maximum distance rules will require facilities to be duplicated.
- the increase in operating expenses dominates the incremental cost of duplicating kitchens and dining rooms. This reflects a view that distribution of food from a central kitchen would be unacceptable for OH&S reasons and that kitchen staff would therefore be duplicated.
- the increase in operating costs associated with the installation of screen doors is based on the assumption that residents will be encouraged to sit outside the doorway with air-conditioners running.
- there is a negative figure for the incremental operating cost of heat pumps. This is the value of energy saved, relative to electric water heaters, but based on the assumption that the storage capacity of heaters is not increased, which would encourage additional consumption of hot water. There is a concern about the availability of a full range of heat pumps at competitive prices.

Panel C reports the large increases in TA charges in situations where all possible incremental costs are incurred, $33.10/night and $49.90/night for TA services with and without ensuites respectively. Note that:

- the estimate is lower for TA buildings with ensuites because, by definition, the duplication of bathing and sanitary facilities would be unnecessary.
- the very large increase for TA services without ensuites ($49.90, 50%) is an unlikely scenario. It involves the duplication of both sanitary and dining facilities and the department understands that communal bathrooms and toilets are now provided only in small camps where the distance to the dining facilities would not be an issue.

Panels D and E report lower incremental charges in situations where the duplication of facilities is avoided. The incremental charge is down to $13.40/night.

Panel F reports the incremental charges where the dust control and weather protection measures can be avoided, for example, taking account of the duration and location of the TA services.

10.2 Increase in the unit cost of TA services involving existing TA assets

The preceding section dealt with the incremental cost of new TA services that are required to comply with the proposed regulation. In addition, owners of existing TA buildings would incur losses on existing buildings that do not comply with the regulation when deployed to a new site or when reapproved for continued operation on the existing site. Note that:

- ‘owners’ are variously the TA client, TA operator or TA supplier, depending on whether the buildings have been purchased or leased and who has done the purchasing or leasing.
- the proposed regulations will not apply retrospectively to existing TA buildings that have current approvals. But they would apply when existing TA buildings are redeployed or reapproved when their current approval expires.

The amount of losses on existing assets relates to the additional cost that would be incurred to modify the existing assets for compliance with the proposed regulation when those assets are redeployed or reapproved. Losses are greater where it is more costly to modify the assets. The department expects that 'modification costs' will be noticeable but modest when TA buildings are redeployed to a new location, but very large where TA buildings need to be reapproved for continued operation on an existing site.

Losses on buildings that are redeployed to a new site

Most of the proposed measures affect the number of buildings or the manner in which they are configured on a site, not the construction of buildings themselves. But some measures may require existing structural assets to be modified if they are to be re-used as TA buildings on a new site. The department has assessed these as follows.

- It is assumed that there are few existing assets of significant value that do not comply with the minimum requirements of at least 5.6 sqm of floor area in the sleeping compartment (P5), the required standard of finishing (P6) and storage (P17).
- However, there are significant existing assets that would need to be upgraded to comply with other minimum requirements:
    - P7 – pest control: The doors of most sleeping compartments would need to be fitted with screens and this would be a noticeable expense.
    - P10 – outdoor amenity: The verandas of many TA buildings would have less than the minimum required width of 2.1 metres and compensating measures would need to be devised, such as the provision of additional outdoor space with a sealed floor and a roof.
    - P19 – energy and water resources: Serviceable electric water heaters could not be re-used with TA buildings and would be demoted to their next best use, which is as replacements for electric water heaters in situations there their continued use is permitted. This may involve their resale in the second-hand market.
- It is not necessarily profitable to adapt existing buildings when circumstances change, which means that any remaining asset value is recovered by resale either as scrap or for re-use in applications where the continued use of the assets is permitted. The department notes that:
    - TA buildings are often resold and demoted to less intensive uses such as workers' accommodation on farms and pastoral properties. The proposed regulation allows that trade to continue, since it applies only to temporary accommodation.
    - A significant component of the existing building stock is quite old, which means that it is close to the end of its effective life and has little remaining asset value.

Overall, the department considers that the incremental cost of the regulation will be higher where the construction of a new camp involves the redeployment of existing TA buildings rather than the purchase of new TA buildings. This is because, as a general rule, it costs more to modify existing assets for changing circumstances than to design the changes into newly

constructed assets. Not only is the bill for materials and labour somewhat higher, there is also less time to recover the expense from an older building that is closer to the end of its effective life.

There may still be significant savings to be had by redeploying existing buildings rather than purchasing new buildings, but incremental cost is the issue here, not total cost.

It follows that, compared with the estimates of incremental cost that are reported in Table 2, which are for newly constructed buildings, the incremental costs for redeployed TA buildings would be higher for several of the smaller cost items reported in Table 2 – door screens, verandas and water heating – but otherwise the same as in Table 2. Rough figuring suggests that the additional incremental cost may be $3.90/night, taking the incremental cost of these measures from $2.70/night to $6.60/night. Most of the additional cost is to provide additional outdoor space to compensate for redeployed TA buildings without verandas that are at least 2.1 metres wide.

The department has not reported the more detailed breakdowns used to construct these estimates but, if the approach proves useful, will make them available for further consultations with TA suppliers and operators.

Losses on buildings that are reapproved at an existing site

There is the potential for very large losses on TA buildings that need to be re-approved for continued operation on an existing site. This is because the entire site would need to be modified, including the possibility of significant changes to the number and configuration of buildings. Also, site-work would be encumbered by the presence of buildings and existing infrastructure, and earnings would be lost if the buildings are vacated while the work is done.

The department assumes that large losses of this kind will be avoided. Specifically, it is assumed that councils will grant reasonable extensions to temporary approvals without imposing onerous conditions, and that proposed measures will not have the practical effect of requiring owners to choose between (a) expensive alterations to the site, and (b) premature removal and demolition of TA buildings.

10.3 Annual aggregate cost

The department estimates the annual aggregate cost of the proposed measures at $15 million/year. Table 3 explains this calculation as the product of:

- the average incremental unit cost, estimated at $18/night
- the number of nights per year that the average TA resident is in residence, which is assumed to be six nights a week for 11 months of the year, or 286 nights/year
- the average number of TA residents, estimated at 3000 (section 3.4)

Panel A of Table 3 shows how the estimate of $18/night was obtained. It uses the breakdown of TA services on which Table 2 is based, adds the corresponding estimates of incremental costs for TA services involving the

Table 3 Estimate of average incremental cost ($/night) and annual aggregate cost ($million/year)

A. Estimate of average incremental cost ($/night)				
TA category	*Newly constructed TA services*		*TA services involving redeployed buildings*	
	$/night	*weight*	*$/night*	*weight*
TA with maximum incremental cost				
With ensuite	$33.10	10%	$37.00	5%
Without ensuite	$49.90	0%	$53.80	0%
TA with incremental costs that exclude duplication of kitchen facilities				
With ensuite	$13.40	13%	$17.30	6%
Without ensuite	$30.20	6%	$34.10	3%
TA with incremental costs that exclude duplication of kitchen facilities, duplication of bathing and sanitary facilities				
With ensuite	$13.40	13%	$17.30	6%
Without ensuite	$13.40	6%	$17.30	3%
TA with incremental costs that exclude duplication of kitchen facilities, duplication of bathing and sanitary facilities, dust control, covered/wider pathways				
With ensuite	$8.70	13%	$12.60	6%
Without ensuite	$8.70	6%	$12.60	3%
Average incremental cost ($/night)	$17.00	67%	$21.00	33%
Average incremental cost (all TA services)	**$18/night**			

B. Estimate of annual aggregate cost	
1. Average incremental cost ($/night)	$18.00 (derived from panel A)
2. Average nights/year	286 (6 nights per week for 11 months of the year)
3. Number of TA residents	3,000 (estimate from stakeholder profile, section 3.4)
Annual aggregate cost	**$15 million/year (= 1 * 2 * 3)**

redeployment of existing buildings, and assigns weights to each of these categories. The weighted average across all categories is $18/night.

Panel B of Table 3 shows the estimate of $15 million/year as the product of the three elements already mentioned.

The department emphases that there is considerable uncertainty about this estimate, reflecting uncertainty about the stock of TA buildings and the degree to which elements of the stock fall short of the proposed standards. However, $15 million/year seems to be the correct order of magnitude and the correct figure is probably in the range $10-20 million/year.

The annual average cost should decline marginally over time as older assets are retired from the stock and the suppliers and operators of TA buildings have more time to refine designs and operations in response to the proposed regulation.

10.4 Distribution of costs

Appendix C provides a profile of the stakeholders who will be affected. That information has also been summarised in section 3.4.

The cost of the proposed regulations will be shared between TA owners, TA clients, and TA residents. How they are shared depends on the extent to which costs can be passed between parties to the transaction. For example,

additional costs that are initially incurred by a TA operator may be wholly or partially passed on to the TA client, and, depending on labour market conditions, the TA client may pass all or part of those costs on to TA residents. The analysis of pass-through effects is necessarily imprecise but provides additional information about the impact of the measures.

The picture is complicated by the fact that a particular party can have multiple roles. For example, the TA supplier may also be the TA owner and TA operator. The following analysis relates to functional roles rather than specific parties. The effect on a particular party is the sum of all the effects on the various roles that it plays.

TA suppliers and operators

The department considers that TA suppliers and TA operators will generally be able to pass additional costs on to TA clients. This assumes that the cost of TA services is a relatively small proportion of total project development costs, and that, consequently, client demand for TA services is 'price-inelastic'.

The proposed regulation may shift demand in favour of existing suppliers of higher quality accommodation, depending on how the proposed regulations affect the competitiveness of their products. However, such shifts are likely to be minor, since all suppliers have the design and production skills required to comply with the proposed regulation.

Owners of existing TA buildings

The owners of existing TA buildings are less well placed to pass on the cost of modifying existing buildings to comply with the proposed regulation. This is because the cost of TA services tends to be capped by the supply price of newly constructed TA assets, and the increase in this price is governed by the incremental cost of new assets. This suggests that TA owners will be able to recover any costs that are matched by corresponding increases in the cost of new constructed TA services, but not the additional costs incurred to modifying existing buildings.

The costs that cannot be passed may be about $1 million/year. This figure is derived as the product of the following estimates from Table 3.

- the difference in the average incremental unit cost of new and redeployed assets, $4/night (= $21/night *minus* $17/night)
- 286 nights/year
- the average number of TA residents in redeployed buildings, put at 1000 (= 33% * 3000)

This annual amount will decline over time as existing buildings are retired and TA owners incur a commensurate reduction in the capital value of these assets. The cumulative losses may be 'several million dollars'.

Sharing of costs between TA clients and TA residents

It follows from the above figuring that the additional cost to TA clients is $14 million/year, that is, $15 million/year *minus* the $1 million/year carried by TA owners.

TA clients have a very limited capacity to pass these costs on to TA residents in the form of lower wages. This is because labour is mobile and would

respond to lower wages by seeking alternative employment, and that process would continue until wage parity is restored. Hence, the department considers that the cost of the proposed regulation will be largely paid by TA clients.

An associated effect, but very small effect, would be an increase in the relative cost of investing in 'TA-intensive' activities and a reallocation of resources towards activities that are less TA-intensive.

10.5 Expected benefits for TA residents

This section provides a qualitative account of the expected benefits. It is not feasible to assign a dollar value to these benefits or to otherwise compare them directly with the costs and calculate the ratio of benefits to costs.

The material is organised with reference to the results of the department's field survey of March 2007. As noted in section 3.2, the survey included inspection of accommodation camps, site and telephone interviews with mayors, council CEOs, government agencies, unions, mining companies, TA suppliers and TA operators. Site visits covered the Bowen Basin shires of Banana, Belyando, Broadsound, Duaringa, Emerald, Nebo, Peak Downs and Sarina. These local government areas have since been variously amalgamated into the regional councils of Central Highlands, Isaacs and Mackay.

It is important to note that one of the difficulties in interpreting the results of the field survey is that participants did not always use the term 'temporary accommodation' in the strict regulatory sense, that is, with reference to a building that has been approved for a limited period. The term was used more loosely, variously referring to the temporary nature of the workforce that lived in the buildings or simply to the fact that the buildings are relocatable. Hence the problems identified in survey are not confined to 'temporary accommodation' as defined for regulatory purposes. Nor can the proposed regulation deal with all the issues that the survey participants identified as 'temporary circumstances'.

<u>Limited contribution to the legacy issues associated with sub-standard accommodation buildings</u>

The field survey found that plans for accommodation services over the medium term include the extended use of buildings with obvious structural deficiencies and the extended operation of camps that provide poor amenities for residents and had a range of adverse effects on host communities. This is a legacy issue arising from severe accommodation shortages that, as the resources boom ramped up, put councils under severe pressure to approve the accommodation developments that were offered and thereby to ameliorate the accommodation cost pressures on their communities.

The department accepts that the main solution to these legacy issues is growth in the total stock of accommodation in areas that experienced the resources boom, which would allow the transfer of residents to accommodation of a higher standard. This process is being driven partly by forces in the labour market and partly by councils.

- Employers have found it increasingly difficult to recruit and retain labour without offering accommodation services of a reasonable standard, regardless of whether the services are required at a particular location

for short or long periods. This means that it is becoming cheaper for employers to provide good quality accommodation than to pay the wages premium that would be needed to induce workers to put up with accommodation of a lesser quality.

- There is also evidence that councils are becoming more demanding as and when the accommodation situation improves, allowing them to negotiate development approvals that contribute to both the desired expansion of the stock of accommodation and the desired increase in the standard of accommodation.

The take-up of temporary accommodation in resource communities is the subject of studies undertaken by the department's Planning Information and Forecasting Unit (PIFU). Since 2006 PIFU has conducted an annual survey of non-resident worker accommodation in the Bowen Basin, which provides a point in time estimate of the number of workers living in temporary worker camps. The 2008 report, now in preparation, provides information about the incidence, size and location of accommodation that councils have approved for this purpose and that would come within scope of the proposed regulation.

PIFU has also carried out a similar survey of non-resident worker accommodation in the North West Region, and has completed a baseline study of temporary accommodation in the Surat Basin.

That said, the department does not expect the proposed regulation to contribute significantly to the resolution of the legacy issues. First, the legacy issue is not confined to temporary buildings as defined for regulatory purposes. Second, as explained in section 10.2, it is assumed that councils will grant reasonable extensions to existing approvals for TA buildings without imposing onerous conditions of a retrospective kind.

It is appropriate that councils continue to manage legacy issues according to their individual circumstances, striking a balance between the quantity and quality of buildings in circumstances where accommodation is scarce and there are sharp conflicts of interest in the community.

Uncertain improvements in the structural qualities of buildings

The department's 2007 field survey found considerable variation in the standard of construction. The following deficiencies were identified:

- structural deficiencies such as inadequate or neglected cyclone tie-down and termite management systems
- possibility that demountable buildings have been structurally compromised through over-use and reuse
- poor fire separation between buildings and a lack of smoke detectors in sleeping quarters
- general lack of disability access
- inadequate provision for the efficient use of energy and water, such as shading of windows, sewerage treatment and recycling of water

It was apparent that some structures do not comply with BCA requirements for fire safety and termite protection.

The proposed regulation will help to address these matters by removing certifier discretion regarding the application of the BCA to TA buildings. The

extent of the contribution is uncertain because (a) the problem is not necessarily confined to buildings with temporary approvals, and (b) the extent to which certifier discretion has contributed to the problem is not clear. As noted in section 10.1, TA suppliers have indicated that their products comply with the BCA and seem generally unconcerned that this discretion may be been removed.

Regulated features that will be significantly improved

Putting aside the explicit requirement for compliance with the BCA, the proposed measures are largely designed to improve health, safety and amenities for TA residents. TA suppliers have indicated that they already substantially comply with several of these requirements but that compliance with other requirements would require significant changes to the construction and configuration of TA services. These are the matters that are reported in Appendix D as 'moderate cost' or 'significant cost', as follows:

- A7 – pest control: The main effect of the measures will be to add insect screens to doorways. Screens are already provided on windows and TA suppliers have explained that they are omitted from doors to discourage residents from sitting outside the room with the screen door open and the air conditioner running, which increases energy costs. The department acknowledges the problem, but considers that it is unacceptable that the only private space available to TA residents may be sleeping quarters that are not liveable unless they are almost completely shut up and air conditioned.
- A8 – dust control: The main effect will be to add a covering of coarse aggregate for six metres around TA buildings, reducing the incidence and severity of airborne dust. Dust creates living conditions that are both unpleasant and unhygienic, and the department considers that the proposed measures are the minimum requirement for the systematic control of dust.
- A10 – outdoor amenity: The main effect will be to ensure that, in the absence of communal outdoor recreation space, the verandas on TA buildings are at least 2.1 metres wide. The department understands that it is common practice for TA residents to socialise in small groups on verandas, and considers that a minimum requirement of 2.1 metres provides for reasonable shaded space.
- A11 – weather protection: The main effect will be to add a roof to the paths between sleeping quarters and facilities such as dining rooms, laundries, bathing and sanitary facilities, protecting residents from the elements as they travel between buildings. It is the equivalent of allowing residents to move comfortably from one room to another as in a normal building, and is standard practice on permanent accommodation sites. The department considers that TA residents should not be unduly impeded, discomforted or delayed in their normal use of TA facilities, and that comprehensive weather protection is a reasonable prerequisite.
- A12 – bathing and sanitary: The main effect will be to ensure that toilets are no more than 20 metres from sleeping quarters that do not have ensuites. Apart from the convenience, the main benefit is to reduce sleep disruption when TA residents need to use the toilet during

the night, particularly in circumstances where interrupted sleep adds significantly to the hazards of driving and working for long hours in remote areas.

- A13 – laundry: The main effect will be to ensure that TA residents do not generally have to queue for washing machines, dryers and other laundry facilities. The nature of remote construction work is such that there can be heavy demands on the laundry during short periods of down time between long shifts, meals and sleep. Apart from the convenience, the department considers that TA residents should not be unduly discouraged from keeping their clothing clean.
- A16 – dining facilities: The main effect will be to duplicate or otherwise reconfigure kitchen and dining facilities to the point where there is no more than a relatively short walk (70 metres) between sleeping quarters and the dining room. TA suppliers have advised that the maximum distance on larger camps is often 150-200 metres, or a round trip of 300-400 metres. This suggests that the measures would reduce the round trip by 150-250 metres. Assuming an average walking speed of 75 metres/minute (about 4.5 km/hour), the saving is of the order of two to four minutes for each round trip. The daily saving is four to eight minutes, assuming one meal at work and two meals at the dining facility. There would be additional trips and proportionally more savings if recreation, communication or other facilities are co-located with the dining facilities. The savings become more significant for workers with only short periods of down time between long shifts, meals and sleep.

These measures help to deal with several matters that were identified by the department's field survey of March 2007:

- uncovered and noisy walkways between sleeping quarters and communal facilities like dining, toilet, washing and parking facilities
- excessive distances between sleeping quarters and communal facilities
- dust discomfort caused by a lack of landscaping

The field survey noted the absence of benchmarks for the adequacy of facilities, such as minimum ratios of facilities to beds, maximum distances from sleeping quarters to external facilities, and for generally providing a living environment in which workers relax and socialise. These need to be appropriate to demanding working conditions, involving social isolation, long hours of shift work, fatigue and a need to relax and sleep uninterrupted when off shift.

The department recognises that these benefits may be small relative to costs if the accommodation requirements are vey temporary, that is, for less than a few weeks or months. However, TA suppliers have advised that TA owners generally seek approvals for two to three years and would often need an extension for one or two years. This is mostly to accommodate project delays but it raises the possibility that workers live in TA buildings for long periods. TA residents may spend many years in a succession of TA buildings. Hence, while the TA sites are temporary, residents can be exposed to conditions that

may be regarded as unacceptable over long periods of demanding work and work hours.

Regulated features where there will be limited improvement

TA suppliers have indicated that they already substantially comply with several of the following requirements, which are reported in Appendix D as 'no cost' or 'minor cost':

- P4 – siting requirements, for adequate drainage and separation from industrial or development activity
- P5 – sleeping compartments, to ensure that compartment have sufficient space and power outlets
- P6 – finishing, to ensure that buildings remain hygienic
- P9 – vehicle access, for provision of parking and vehicle circulation areas
- P12 – bathing and sanitary, use of ensuites ensures convenient access to bathing and sanitary facilities in most cases
- P14 – kitchen, for provision of a dining facility and either a food preparation area or external catering
- P15 – refrigeration, for adequate storage of food and drink
- P18 – storage facilities, for weatherproof and lockable storage
- P19 – communications, for adequate communication in reasonable privacy

Regarding these matters, therefore, the department does not expect significant improvement for most TA residents. A more realistic expectation is that the proposed regulations will help to eliminate the worst practices in a minority of TA buildings.

This is not to deny that there is considerable legacy of these problems in existing accommodation buildings, specifically:

- lack of lockable storage and communication appropriate to remote areas
- excessive distances between sleeping quarters and communal facilities like toilet, washing and parking facilities
- muddy or dusty environments due to poor drainage

The point is that the advice from TA suppliers is that these are largely legacy problems and, putting legacy problems aside, it only remains to eliminate worst practices in a minority of cases.

10.6 Expected off-site benefits

Benefits for TA host communities

The department's field survey recorded various adverse effects of TA buildings on host communities.

- traffic, noise and dust imposed on neighbouring properties
- aesthetic impact of dilapidated, unsightly and monotonously repetitive buildings, on a scale that is large relative to the host community

- the prospect of these buildings being removed at some future time, leaving a patchwork of undeveloped and unsightly properties
- road accidents caused by weary workers commuting between TA buildings and mine sites, or between their TA and their permanent residences on the Queensland coast, typically on a cycle of 4 days on and 4 days off

Councils are best placed and most strongly motivated to deal with most of these issues, using the standard policy instruments associated with council planning schemes. These are zoning instruments and development conditions governing the following matters: development density; landscaping, car-parking and vehicle access; building design and layout; privacy, safety and amenity.

Follow-up discussions with councils in the Bowen Basin suggest that they are focussed on using these powers to deal with legacy issues and provide for the emerging configuration of accommodation requirements. This is a fluctuating mix of permanent residents, non-resident workers who fill permanent positions on a DIDO/FIFO basis, and non-resident workers who need accommodation for shorter periods as the pace of construction work ebbs and flows in the local area. Councils welcome the proposed regulation as supporting these efforts, in two respects in particular. First, it removes doubt about the need to comply with the BCA. Second, it reduces the pressure on Councils to avoid imposing conditions that may jeopardise desired development opportunities, or give that appearance. Otherwise, however, the Department recognises that the proposed regulation would contribute only modestly to the amelioration of the off-site impacts identified by the field study.

Environmental benefits

Assuming that the TA residents use 50 litres/day of hot water on average, and that electric water heaters are replaced with heat pumps, the proposed regulation would annually contribute about 2,000 tonnes of CO_2-e (carbon dioxide equivalent) to greenhouse abatement.

11. FUNDAMENTAL LEGISLATIVE PRINCIPLES

The *Legislative Standards Act* 1992 requires that legislation has sufficient regard for the rights and liberties of individuals, and the institutions of Parliament. The department is not aware of any such issues arising from the proposed measures. The following are relevant considerations:

- The department has consulted relevant stakeholders in developing the proposals. None has raised issues of this kind.
- The proposed measures employ regulatory arrangements that are established and accepted through the community – specifically, the QDC.
- There has been parliamentary scrutiny of the legislative changes to Section 67 of the *Building Act* 1975, which were required to include TA buildings in the scope of the QDC.

This consultation RIS provides a further opportunity for issues of this kind to be raised.

REFERENCES

ABARE (2008) *List of major minerals and energy projects,* April

DIP (2007) *Bowen Basin population report, 2007*, November

DLGPSR (2006) *A Sustainable Futures Framework for Queensland Mining Towns*

Queensland Government (2005) *Regulatory Impact Statement Procedures and Requirements*

67 Temporary building or structure that does not comply with other building assessment provisions

(1) A building development approval for any temporary building or structure must include a condition that—

(a) limits the period during which the temporary building or structure may remain in place; and

(b) requires removal or demolition of the temporary building or structure at the end of the period.

(2) Subsection (3) applies to a building development application for a temporary building or structure if—

(a) no building assessment provision is expressed to apply specifically to temporary buildings or structures generally or to temporary buildings or structures of the same type as the temporary building or structure; and

(b) the building or structure would not otherwise comply with the building assessment provisions.

(3) The assessment manager must not approve the application unless the building certifier has decided the temporary building or structure—

(a) is structurally sound and capable of withstanding the loadings likely to arise from its use; and

(b) reasonably provides for all of the following—

(i) the safety of persons to be accommodated in the building or structure if there is a fire (including, for example, means of egress);

(ii) the prevention and suppression of fire;

(iii) the prevention of the spread of fire;

(iv) the health and amenity of persons to be accommodated in the building or structure.

Appendix B: Review of data sources relating to the number of people in temporary accommodation buildings

B.1 2006 census returns for LGAs – occupants of 'staff quarters'

The 2006 census recorded 161,869 people in non-private dwellings in Queensland. These are dwellings that provide a communal type of accommodation, such as hotels and motels, boarding houses and boarding schools, hospitals, aged care and welfare homes, religious communities and prisons. The categories based on an employment relationship are 'nurses' quarters' and 'staff quarters'. Most of the TA residents of concern to this RIS are a subset of the residents of dwellings in the 'staff quarters' category.

The 2006 census recorded 16,652 people in staff quarters, including those who normally lived elsewhere and use the accommodation on a FIFO or DIDO basis. They were in 75 of Queensland's (then) 158 LGAs.

Some people who use staff quarters regularly would have been elsewhere on the night of the census. The numbers are not necessarily insignificant, given that workers employed in the construction and mining sectors on a FIFO or DIDO basis spend a large proportion of their time off-site, at their usual place of residence.

Mostly, TA services are provided for workers employed in male-dominated project-based occupations like construction and minerals exploration, and in regional locations where temporary workforces cannot be easily accommodated by the stock of pre-existing dwellings. Hence, one way to further refine the count is to focus on regional LGAs that returned a large proportion of males in staff quarters and are outside the major urban areas. Table 4 reports the number of occupants of staff quarters in such LGAs, using a minimum male proportion of 75%.

This figuring indicates that:

- 30 LGAs satisfied these criteria under the old LGA boundaries. These are elements of 21 LGAs under the new LGA boundaries.
- males account for 90% of the residents in the staff quarters of these LGAs.
- two of the new regional councils (RC) in the central Queensland coal basins – Isaac RC and Central Highlands RC – account for 63% of these residents.
- however, these accommodation arrangements have been reported from LGAs in the Surat Basin (Dalby and Roma RCs) and a broad sweep of councils from the South West, Central West and North West of Queensland.
- many of the TA residents that are of concern to this RIS are a subset of the 9801 people that the 2006 census recorded as male-dominated occupants of staff quarters in these LGAs.

Table 4 2006 census count of people in staff quarters: regional LGAs with large proportion of males (>75%) in staff quarters

Old council name	*New council name*	*People*	*People (% of total)*	*People (cumulative % of total)*	*Males (%)*
A. Ranked in descending order, old council boundaries					
Nebo (S)	Isaac RC	2,012	20.5%	20.5%	86%
Broadsound (S)	Isaac RC	1,398	14.3%	34.8%	95%
Duaringa (S)	Central Highlands RC	1,117	11.4%	46.2%	94%
Peak Downs (S)	Central Highlands RC	901	9.2%	55.4%	96%
Cloncurry (S)	Cloncurry (S)	606	6.2%	61.6%	89%
Belyando (S)	Isaac RC	476	4.9%	66.4%	95%
Chinchilla (S)	Dalby RC	466	4.8%	71.2%	77%
McKinlay (S)	McKinlay (S)	442	4.5%	75.7%	86%
Burke (S)	Burke (S)	422	4.3%	80.0%	84%
Banana (S)	Banana RC	312	3.2%	83.2%	84%
Quilpie (S)	Quilpie (S)	241	2.5%	85.6%	96%
Bulloo (S)	Bulloo (S)	206	2.1%	87.7%	94%
Bungil (S)	Roma RC	192	2.0%	89.7%	92%
Etheridge (S)	Etheridge (S)	168	1.7%	91.4%	76%
Dalrymple (S)	Charters Towers RC	158	1.6%	93.0%	85%
Bauhinia (S)	Central Highlands RC	149	1.5%	94.5%	91%
Weipa (T)	Weipa (T)	148	1.5%	96.1%	76%
Emerald (S)	Central Highlands RC	125	1.3%	97.3%	83%
Hope Vale (S)	Hope Vale (S)	55	0.6%	97.9%	87%
Barcoo (S)	Barcoo (S)	43	0.4%	98.3%	79%
Paroo (S)	Paroo (S)	37	0.4%	98.7%	78%
Barcaldine (S)	Barcaldine RC	28	0.3%	99.0%	82%
Murilla (S)	Dalby RC	26	0.3%	99.3%	100%
Balonne (S)	Balonne (S)	25	0.3%	99.5%	88%
Warroo (S)	Roma RC	21	0.2%	99.7%	100%
Aramac (S)	Barcaldine RC	10	0.1%	99.8%	100%
Richmond (S)	Richmond (S)	8	0.1%	99.9%	100%
Tambo (S)	Blackall RC	3	0.03%	99.9%	100%
Monto (S)	North Burnett RC	3	0.03%	100.0%	100%
Jericho (S)	Barcaldine RC	3	0.03%	100.0%	100%
Total		**9,801**	**100.0%**		**89%**
	B. New council boundaries				
	Isaac RC	3,886	39.6%		90%
	Central Highlands RC	2,292	23.4%		94%
	Dalby RC	492	5.0%		78%
	Banana RC	312	3.2%		84%
	Roma RC	213	2.2%		92%
	Charters Towers RC	158	1.6%		85%
	Barcaldine RC	41	0.4%		88%
	Blackall RC	3	0.03%		100%
	North Burnett RC	3	0.03%		100%

B.2 2006 census returns for CDs – occupants of non-private dwellings

The department conducted a similar exercise at the level of the census collector's district (CD), which is a much smaller geographical unit than the LGA. The department identified regional CDs in which males dominated the residents of non-private dwellings[4] and where this outcome could not be explained by the presence of a school, military base, prison or the like.

This exercise added only twos LGA to the list in Table 4 – Boulia and Crow's Nest – and possibly an additional 100-150 residents.

B.3 Bowen Basin population report, 2007

The department has published estimates of the full-time equivalent (FTE) population of non-resident workers in the Bowen Basin. These are based on a comprehensive survey of providers of accommodation for non-resident workers in the following LGAs, on the old boundaries: Banana; Bauhinia; Belyando; Broadsound; Bowen; Duaringa; Emerald; Nebo; Peak Downs. Table 4 contains all these LGAs except Bowen. On the new LGA boundaries, the survey covers accommodation providers in Banana RC, Central Highlands RC, Isaacs RC and Whitsunday RC.

The department surveyed providers of non-resident accommodation In single people quarters (SPQs), hotels and motels, caravan parks and houses and flats. SPQs correspond closely, if not exactly, to the 'staff quarters' category used for the 2006 census. Most of the TA residents of concern in this RIS are a subset of the residents of SPQs.

The department's latest estimates (DIP 2007) are for July 2007 but contain comparative data for a similar survey conducted in 2006. The 2008 survey is now in progress and new estimates will probably be available in November or December 2008. See Table 5 for a summary of the main findings for 2006 and 2007, including a comparison with the 2006 census returns. Note the following:

- While there is a broad family resemblance between the census and survey estimates for 2006, particularly at the aggregate level, there are significant differences at the LGA level. These differences are more pronounced when examined at the more disaggregated level of the old LGA boundaries. Possible explanations of the difference are that (a) the census may have missed some accommodation facilities on mine sites, and (b) populations are destabilised by the DIDO/FIFO pattern of TA occupancy. Broadly, however, the census and survey estimates are consistent.
- The SPQ population increased by 485 people, or 6%, between 2006 and 2007 but the increase is unevenly distributed. The change was +8% in the two largest LGAs (Isaacs and Central Highlands), +60% in Whitsunday, and -18% in Banana.
- The 9211 SPQ residents for 2007 were accommodated at 44 establishments, averaging 209 residents per site.

[4] The criteria are that males comprised at least 67% of the residents in non-private dwellings and that there were at least 20 'excess males', that is, at least 20 more males than females.

Table 5 DIP estimates of non-resident workers residing in SPQs in the Bowen Basin, 2006 & 2007

LGA, new boundaries	*2006*		*2007 DIP survey of SPQ providers*		
	2006 census - residents of staff quarters	*2006 DIP survey - SPQ residents*	*Change in residents, 2006 to 2007*	*Residents, 2007*	*SPQ sites, 2007*
Isaacs RC	3,886	5,867	488	6,355	19
Central Highlands RC	2,292	1,776	134	1,910	16
Banana RC	312	1,008	-182	826	4
Whitsunday RC	309	75	45	120	5
Total	**6,799**	**8,726**	**485**	**9,211**	**44**

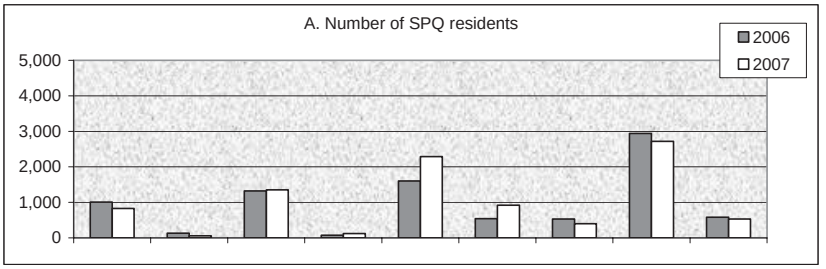
Evidence of temporary accommodation needs

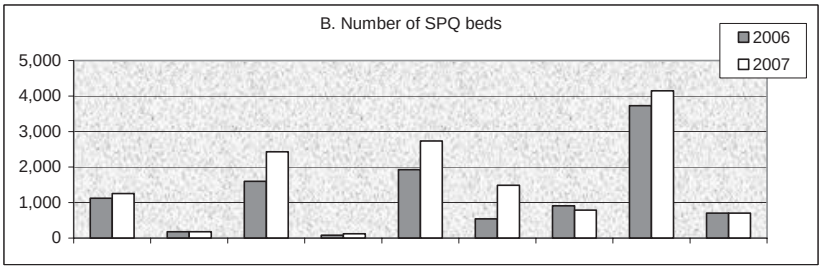
Comparison of 2006 and 2007 using the old LGA boundaries, which is more disaggregated than the data reported in Table 5, indicates the degree to which accommodation needs are temporary. Figure 1 presents the relevant data. Note the following.

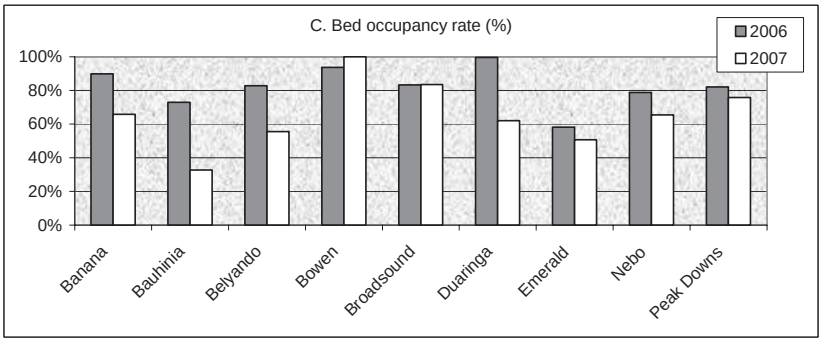
- *Panel A* shows that, while the number of SPQ residents increased by 6% between 2006 and 2007, the number of residents declined in five of the nine LGAs. Presumably, this is mainly because construction workers are following the work from one project to another, and the shifts between LGAs are reasonably significant. The net increase of 485 residents is accompanied by gross movements of 1308 SPQ residents between LGAs.
- Comparison of *panel B* with *panel C* indicates there is not a strong relationship between the change in the number of residents and the change in the number of beds. In three of the nine LGAs – Banana, Belyando and Nebo – the number of SPQ residents declined as the number of SPQ beds increased. These disparities are reflected in *panel C*, which shows that overall occupancy declined in several LGAs, sometimes to quite low levels. Possible contributing factors are (a) workers abandoned lower quality SPQs as higher quality SPQs were constructed, consistent with what the department has been told about trends in accommodation quality throughout the Bowen Basin, and (b) the SPQs in a particular LGA are not always in the right place for new projects and there is often a need to build new SPQs even when there are SPQs with low occupancy in other parts of the LGA.
- It is apparent from *panel C* that occupancy rates can be quite low, especially given that average of occupancy at the LGA level would conceal significant variation in occupancy within LGAs.

The department interprets these data as indicating that the amount and quality of accommodation that is required at a particular location can change significantly over relatively short periods, giving rise to significant demand for accommodation of a temporary nature.

Figure 1 Shifting patterns of SPQ accommodation between 2006 and 2007







C.1 TA residents

The department considers that, throughout Queensland, there would be no more than 3000 people living in TA buildings as part of an employment relationship or under some other commercial arrangement. This is not a precise estimate. It is a judgement based on the following considerations and informed by the review of the available data that is reported in Appendix B.

- It is generally the case that the workforce of a resource-related project is much larger during the construction phase than during the operational phase.
  - The employment estimates in ABARE's listing of major development projects (at April 2008) are for an average of 691 jobs and 244 jobs (per project) during the construction and operational phases respectively.
  - TA suppliers and operators tell us that TA services are provided mainly for workers employed in the exploration and construction phases of resource development.
- Nevertheless, there are many fewer workers employed in exploration and construction than in the operation of resource projects. We can regard exploration and construction workers as a migratory workforce that moves from project to project but leaves behind an ever growing stock of operational jobs.
- Surveys undertaken by the department in 2006 and 2007 (DIP 2007) indicate that, allowing for growth to 2008, there would now be 9000-10,000 people living in single-person quarters (SPQs) in the Bowen Basin. This includes residents of permanent establishments, which means that many of the TA residents of concern to this RIS are a sub-set of these 9000-10,000 people.
- The 2006 census recorded male employment of 9216 and 3772 in the mining and construction industries, respectively, in the major LGAs of the Bowen Basin[5]. The department understands that the 3772 construction workers are the major source of residents for SPQs on temporary SPQ sites, since mine operating workers are accommodated on permanent SPQ sites. But not all construction workers are working on new resource projects and not all who are working on new resource projects would be accommodated in TA buildings. It has been assumed that no more than half the construction workforce, or 2000 workers, would require temporary accommodation at any one time.
- The 2006 census recorded 9902 people living in male-dominated 'staff

[5] Under the post-reform LGA boundaries, these are the Regional Councils of Banana, Central Highlands, Isaacs and Whitsunday.

quarters' in LGAs that are outside the main urban areas, including both temporary and permanent accommodation. About two-thirds of these people were in the Bowen Basin. Proportionally, therefore, it has been assumed that the Queensland tally of TA residents is no more than 3000, of whom 2000 are in the Bowen Basin and 1000 are elsewhere in Queensland.

C.2 TA host communities

The 9902 people living in male-dominated 'staff quarters' came from the 33 LGAs that are listed in table 1 of the main text. Note that:

- They are defined on the old LGA boundaries that applied at the time of the 2006 census.
- Table 1 reports the total number of people in both temporary and permanent staff quarters. The department regards the table as indicating the types of locations where TA is required from time to time, not as a definitive statement of where TA was in use on the night of the 2006 census.

The department conducted phone interviews with all councils in the Bowen and Surat basins and with a sample of councils in other parts of Queensland.

- Councils in the Bowen basin are fully aware of the issues addressed by the proposed regulation and seem to broadly concur with the findings of the 2007 departmental survey.
- Councils in the Surat basin are aware that the accommodation issue in 'moving south' from the Bowen to the Surat basin but will take on characteristics associated with gas exploration and development rather than coal.
- Councils in other parts of the state seem to be less concerned about adverse impacts of TA. Whereas TA is hosted by small urban centres in the Bowen and Surat basins, the pattern in other LGAs is for TA to be used on a smaller scale and in remote locations that cannot be easily serviced by from existing townships.

C.3 TA clients

The department defines 'TA clients' as the parties that ultimately pay the bills for TA.

In some cases the TA client employs the TA residents directly. For example, local councils and the Department of Main Roads (DMR) employ road construction and maintenance gangs and provide TA in situations where it is not feasible to workers to use conventional accommodation. These tend to be relatively small facilities, seldom accommodating more than 20 workers, but for periods of up to 12 or 18 months.

Queensland Rail also provides TA for the migratory rail gangs that it employs to replace rails and sleepers. These camps tend to be somewhat larger, generally about 50 workers, but up to 100 workers, and may be occupied for up to 12 months.

TA residents may also be the employees of companies that have contracted with the TA client to provide developmental or 'non-operational' services of some kind, such as exploration, drilling or construction services.

- Some of these are also on a small scale, less than 20 workers, and TA may be needed for no more than several weeks – for example, exploration, drilling and maintenance gangs that are required periodically and cannot be accommodated in whatever permanent accommodation is available locally.
- Larger camps are often needed for construction workforces. Several hundred construction workers may be employed on projects at any one time, but there is uncertainty about the typical size of TA projects for construction workers. Possibly, it is rare for TA to be provided for more than 250 construction workers. Some operators said that 200 is a 'large' construction workforce.

TA for construction workers is variously organised by engineering and construction companies, including specialist providers of project management and EPCM (engineering, procurement, construction and maintenance) services. The following have been mentioned in our discussions with industry.

- Bechtel Corporation – engineering, construction, and project management
- Bilfinger Berger Services – multi-service engineering and construction
- Clough – engineering, construction and asset support contractor
- Fluor Daniell – engineering, procurement, construction and maintenance services
- John Holland – engineering, construction, and project management
- Larpro – project management
- Leighton Contractors – engineering, procurement, construction and maintenance services
- Sinclair Knight Merz – engineering and project delivery firm
- Thiess – engineering and construction

In turn, these companies are under contract to a range of companies in the mining, petroleum and infrastructure sectors. Table 6 gives an overview of the major clients for resource-related construction work in Queensland at the present time, drawing on ABARE's most recent list of major development projects (April 2008). The table reports some of the 'big names', but ABARE also lists about 20 other lesser names that the table groups into the 'other private' category. Queensland government enterprises (ports and rail) are also prominent.

Table 6 Major Queensland projects by sector & company (April 2008)

	Anglo Coal	*BHPB Mitsubishi*	*Macarthur Coal*	*Origin Energy*	*Rio Tinto*	*Santos*	*Xstrata*	*Other private*	*Queensland government*	***Total***
Mining and minerals processing										
Black coal	4	3	5		2		2	11		**27**
Aluminium					1					**1**
Bauxite								1		**1**
Copper							2	4		**6**
Crude iron and steel								1		**1**
Gold								5		**5**
Lead–zinc–silver							3	2		**5**
Nickel								3		**3**
Uranium								2		**2**
Other commodities								3		**3**
Minerals processing					2			1		**3**
Petroleum										
Oil & natural gas						1		3		**4**
Coal seam methane				2				3		**5**
Infrastructure										
Gas pipeline								8		**8**
Black coal		1						2	20	**23**
Total	**4**	**4**	**5**	**2**	**5**	**1**	**7**	**49**	**20**	**97**

C.4 TA suppliers

'TA suppliers' are the companies that manufacture and install TA buildings. The following manufacturers of relocatable buildings have been identified as active in Queensland but with varying involvement in the supply of TA buildings.

- Atco Structures: Atco is a subsidiary of ATCO Group, which is a Canada-based multinational with businesses in power generation, natural gas and electricity transmission and distribution, industrial manufacturing, technology, logistics and energy services.
- Ausco Modular: Ausco is long established in Australia and was previously owned by James Hardie. Ausco is now a subsidiary and major asset of WACO International, based in South Africa.
- Maroon Group (MGA): MGA was established in 2004 and now operates exclusively in Queensland. MGA has an accommodation village in Nebo and will open new villages in Gladstone and Muswellbrook in 2008.
- Nomad Modular Building: Nomad is a wholly owned subsidiary of Nomad Building Solutions Ltd. It was established in 1990 in Western Australia and was listed on the ASX in October 2006. It commenced Queensland operations during the last several years.
- The MAC Services Group (The MAC): The MAC is an Australian owned public company that was established in 1988 to supply

accommodation services and moved into mining accommodation in 1996.

C.5 TA operators

'TA operators' are the companies that provide cleaning and catering services, manage the site and pay the utility bills, either on a contractual basis or as owners and operators of TA camps. The cost of providing these services is sensitive to the design of TA buildings and the configuration of TA camps.

The following operators have been identified as active in Queensland.

- Cater Care Services: Cater Care is an Australian private company incorporated in 1999 that provides services to remote sites in Queensland, NSW and Victoria.
- Compass Catering and Services: Compass is a subsidiary of a multinational provider of food services, Compass Group plc. Compass employs 10,000 people at 500 sites in Australia and New Zealand, and supplies food and other support services to remote mining and construction camps, offshore platforms and military sites.
- Morris Corporation: Morris is an Australian private company providing a full range of facilities management services, primarily serving the construction and mining industries. It also has operations in Papua New Guinea and the Middle East.
- Remote Infrastructure Management Corporation (Rimcorp): Rimcorp is an Australian private company providing remote site management services, including catering, cleaning and all aspects of site management. It is based in Townsville, has offices in Perth and Melbourne and representation in Port Moresby, Calgary and Beijing.

Two of the suppliers, MGA and The MAC, are also TA operators.

C.6 Other stakeholder groups and functions

- TA owners: 'TA owners' seems not to be a useful category for most analytical purposes. The TA owner is variously the TA client, TA supplier or TA operator, depending on which party owns the site and whether the TA buildings have been purchased or leased from the supplier. A council may be simultaneously the TA owner, client, operator and host.
- Planning, design and certification professionals: The proposed regulations would need to be integrated with the professional work of designing TA buildings and sites, mostly involving the management, engineering and building professionals employed by TA clients, suppliers, operators and host councils. Geoff Mitchell Associates (GMA) is a building certification company that plays a significant role in the process.

Appendix D: Tabulated summary of supplier and operator comments on the cost of implementing acceptable solutions

Acceptable solutions	*Impact on off-site costs of materials and buildings, including transport to the site*	*Impact on on-site costs of siteworks, construction, demolition, removal and rehabilitation*	*Impact on operating costs*
	Building standards		
A1 - removal or demolition	NA	Minor cost. The measures may affect the timing of demolition, removal and rehabilitation expenses, but not the amount.	NA
A2 & A3 - compliance with the DTS provisions of the BCA, except for energy efficiency provisions in all TA buildings, and except for sound-proofing provisions where the TA building is not provided as part of an employment contract or for the payment of a fee.	Minor savings. It is assumed that, under existing legislative provisions for the light-handed regulation of TA buildings, TA clients already have the option of substantially ignoring energy efficiency requirements.	NA	NA
	Health and amenity		
A4 – siting requirements	No cost. TA suppliers say that they already comply.	No cost.	NA
A5 – sleeping compartments	No cost. TA suppliers say that they already comply.	No cost.	NA
A6 - finishing	No cost. TA suppliers say that they already comply.	No cost.	NA
A7 – pest control	Moderate cost. Screens are generally installed for windows but not doors, to discourage residents from sitting outside the doorway with the door	No cost.	Moderate cost. TA suppliers expect an increase in energy costs, as screens allow residents to sit outside the

Acceptable solutions	*Impact on off-site costs of materials and buildings, including transport to the site*	*Impact on on-site costs of siteworks, construction, demolition, removal and rehabilitation*	*Impact on operating costs*
	open but the screen door closed and the air conditioner running. It is also standard practice to have the door opening outwards, to provide more space inside, making it more difficult to provide insect screens.		doorway with the door open but the screen door closed and the air conditioner running.
A8 – dust control	Moderate cost, particularly for transporting ground cover materials to more remote regions.	Moderate cost - additional siteworks to install ground cover.	NA
A9 – vehicle access	Minor cost. TA suppliers say that they would already substantially comply.	Minor cost.	NA
A10 – outdoor amenity	Moderate cost. TA suppliers say that the least cost solution would be to provide wider verandas, but that these would require some structural enhancement.	Minor additional cost of installation.	NA
A11 – weather protection	Significant cost. Weather protection is generally provided for permanent accommodation buildings, but not for TA buildings. The assets cannot be reused and would be scrapped when the camp is demolished or removed.	Moderate cost, arising from the demolition and disposal of additional structures.	NA
Facilities			
A12 – bathing and sanitary	Minor costs for larger camps with ensuites. TA suppliers say that it is now standard practice to provide ensuites but that slightly bigger shower facilities may be required to meet the requirement for minimum	NA	NA

Acceptable solutions	*Impact on off-site costs of materials and buildings, including transport to the site*	*Impact on on-site costs of siteworks, construction, demolition, removal and rehabilitation*	*Impact on operating costs*
	floor dimensions of 900mm X 900mm. Currently, some ensuites have an external dimension (wall to wall, excluding shower lining) of 900mm, leaving an internal dimension of about 870mm in the shower. Minor costs also where changes to layout can keep external sanitary facilities within 20 metres of sleeping quarters. Significant costs where compliance would require duplication of sanitary facilities, generally requiring duplication of bathing facilities as well.		
A13 - laundry	Moderate cost. The department understands that the regulation would generally require more generous provision of washing machines, clothes dryers and tubs.	Moderate cost: Additional electricity, water and wastewater services would be required.	NA
A14 - kitchen	No cost. TA suppliers say that they already comply.	No cost.	NA
A15 - refrigeration	No cost. TA suppliers say that they already comply.	No cost.	NA
A16 – dining facilities	Significant cost. TA suppliers have said that: (a) It is very unusual to provide dining place for more than 60% of the residents, allowing for staggered meal	Significant cost, commensurate with the additional dining facilities. Additional electricity, water and wastewater services would be required, and it may no longer be feasible to locate them conveniently	Significant cost where dining facilities are duplicated. TA operators have explained that the duplication of dining facilities also requires the duplication of kitchen facilities

Acceptable solutions	*Impact on off-site costs of materials and buildings, including transport to the site*	*Impact on on-site costs of siteworks, construction, demolition, removal and rehabilitation*	*Impact on operating costs*
	times and shifts. Hence, to supply a place for all residents, dining capacity would be increased by about two thirds. (b) The 70 metre rule (maximum distance from sleeping quarters to dining facility) may require the duplication of dining facilities or other significant modifications to the layout of the site.	on the boundaries of the site, adjacent to service roads and utilities.	and kitchen staff. For OH&S reasons, it is not possible to centralise the meals preparation and distribute meals to separate dining facilities. This would add significantly to catering costs.
A18 – storage facilities	Minor cost. TA suppliers say that they substantially comply, certainly in terms of the volume of storage space required if not in terms of the exact dimensions	No cost.	NA
A19 - communications	No cost. TA suppliers say that they already comply.	No cost.	NA
	Sustainable building measures		
A20 – energy and water saving measures	Moderate cost. TA suppliers say that they already comply with the lighting and water provisions but that they would need to replace electric water heaters with heat pumps. Gas is prohibitively expensive and solar water heaters would not compete with heat pumps.	No cost.	Moderate savings. There is uncertainty about the savings in situations where an electric hot water system is replaced with a heat pump with larger storage capacity, encouraging residents to use more hot water than otherwise.

MP 3.3 – Temporary accommodation buildings & Structures

MP 3.3 – Temporary accommodation buildings & Structures

Purpose

The purpose of this part is to specify minimum standards for *temporary accommodation building*s.

Commencement

This version of Part MP 3.3 –
(a) commences on [DATE]; and
(b) is the first published version of Part MP 3.3.

Application

(a) Performance requirements P1, P2 and P4 to P19 apply to a *temporary accommodation building* where:
    (i) an employer provides accommodation under, or as an incident of, an employer employee relationship; or
    (ii) there is no employer-employee relationship and accommodation is provided for the payment of a fee or other consideration.
(b) For *temporary accommodation buildings* other than those in (a), only performance requirements P1 and P3 apply.
(c) This code does not apply to *temporary accommodation building* forming part of a detention centre.

Referral agency

The local government is a concurrence agency for any alternative solutions used to comply with performance criteria P1 under this part.

Referenced documents

- *BCA* – Class 2 to 9 buildings Volume 1.
- *BCA* – Class 1 and 10 buildings - Housing Provisions Volume 2.
- AS 1289-1997: Method of testing soils for engineering purposes.
- AS2890.1-1993: Parking facilities – off-street car parking.
- AS/NZS6400-2004: Water efficient products.

Definitions

- Note: *Italicised* words in the body of the text other than legislation titles are defined below.

Approval period means the period for which the *temporary accommodation building* is approved to remain onsite in accordance with section 67(1) of the Building Act 1975.

Bathing and sanitary facility means bathing, shower and water closet facilities provided for each three beds or part thereof that includes –

MP 3.3 – Temporary accommodation buildings & Structures

(a) a dual flush water closet cistern and pan with; a minimum floor area of 0.81m^2, one fixed wash basin with internal overflow relief facility, and a water stop plug permanently attached to the basin;
(b) a shower, with a minimum floor dimension of 900mm x 900mm;
(c) hot and cold water outlets to each shower with a shower rose and wash basin;
(d) a vanity mirror, a vanity shelve, a towel rail, a toilet roll holders, and a clothes hook;
(e) where items (a) and (b) are in separate cubicles such cubicles have doors able to be latched closed from the inside and removable from the outside;
(f) a double power point.

BCA means the Building Code of Australia as defined by the *Building Act 1975*.

Bed means a piece of furniture in a *sleeping compartment* which is designed for or used by a person to sleep in.

Common area means entertainment rooms, foyers, lounge rooms, dining rooms, kitchens, laundries and the like.

Demolish means demolition and removal of all building services, footings, and debris and rehabilitation of the ground to its pre-approval condition and otherwise comply with the conditions of the relevant approval under section 67(1) of the Building Act 1975.

Dining area means an area where meals are eaten at a table or a designated area used for dining.

Dining facility means an indoor *dining area* where all meals are provided along with dining utensils.

Ensuite means a private room that provides *bathing and sanitary facilities* attached to a *sleeping compartment*.

Ground cover means –
a) drought resistant vegetation; or
b) coarse aggregate of 15 mm nominal diameter placed and compacted in accordance with AS 1289–1997: Method of testing soils for engineering purposes; or
c) a sealed surface such as concrete or other suitable material.

Industrial or development means work other than catering for or maintenance of *temporary accommodation buildings*.

Opening means doors, windows and other openings in external walls or roofs.

Outdoor space means a covered and paved outdoor area available for recreational use by *residents*.

Remove means removal of all building services, footings, and debris and rehabilitation of the ground to its pre-approval condition, and otherwise comply with the conditions of the relevant provisions under section 67(1) of the Building Act 1975.

Required means *required* by this code.

MP 3.3 – Temporary accommodation buildings & Structures

Resident means someone who sleeps in, or is accommodated in, a *temporary accommodation building*.

Sleeping compartment means a room which contains a *bed*.

Structure for the purposes of this standard includes a transportable or demountable building or a caravan which is fixed to the ground or supported by footings.

Temporary means an *approval period* of up to 24 months duration.

Temporary accommodation centre means a group of *temporary accommodation buildings* where there are more than 20 beds.

Temporary accommodation building means a building that is assessable under section 67 of the Building Act 1975 which –

- contains a *sleeping compartment*, whether or not it is used; or
- is a building that contains facilities *required* by this part to service a *sleeping compartment*.

MP 3.3 – Temporary accommodation buildings & Structures

	PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS
	BUILDING STANDARDS		
	Removal or Demolition		
P1	*Temporary accommodation buildings* remain located on a site for an appropriate duration.	A1	*Temporary accommodation buildings,* after an approved duration of no more than 24 months, or 24 months from the day this standard commences for *temporary accommodation buildings* being used prior to the introduction of this part, are – (a) *removed* from the site or *demolished;* or (b) reassessed for compliance with this standard; and if compliant approved for a new *approval period* of up to 24 months before *demolition* or *removal*.
	Building Code of Australia		
P2	*Temporary accommodation buildings* comply with the performance requirements of the *BCA*, except for performance requirements JP1 and JP2 of *BCA* Volume 1 and 2.6.1 and 2.6.2 of *BCA* Volume 2, where: (a) an employer provides accommodation under, or as an incident of, an employer employee relationship; or (b) there is no employer-employee relationship and accommodation is provided for the payment of a fee or other consideration.	A2	*Temporary accommodation buildings* comply with the deemed-to-satisfy provisions of the *BCA* except Parts J1 to J8 of *BCA* Volume 1 and Part 3.12 of *BCA* Volume 2.
P3	*Temporary accommodation buildings* other than those in performance requirement P2 comply with the performance requirements of the *BCA*, except for performance requirements Qld FP5.1 to Qld FP5.4, JP1 and JP2 of *BCA* Volume 1 and P2.4.6, P2.6.1 and 2.6.2 of *BCA* Volume 2.	A3	*Temporary accommodation buildings* comply with the deemed-to-satisfy provisions of the *BCA* except Qld F5.0 to Qld F5.8, Qld Specification F5.2, Qld Specification F5.5 and Parts J1 to J8 of *BCA* Volume 1 and Parts 3.8.6 and 3.12 of *BCA* Volume 2.
	HEALTH AND AMENITY		
	Siting requirements		
P4	*Temporary accommodation buildings* are placed in a suitable location on the site to ensure provision and maintenance of	A4	Every *temporary accommodation building* is placed – (a) on a base of concrete, course gravel or the like, raised at least

MP 3.3 – Temporary accommodation buildings & Structures

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
healthy conditions with visual and acoustic privacy from *industrial or development* activity.	150mm above the surrounding ground level; or (b) on a site drained in accordance with the *BCA* Volume 2 Part 3.1.2; and (c) more than 45m from any *industrial or development* activity.
Sleeping compartments	
P5 *Sleeping compartments* in *temporary accommodation buildings* must: (a) have sufficient area to provide a comfortable and healthy living environment appropriate to the number of occupants of the *sleeping compartment*; and (b) have adequate power outlets for appliances; and (c) be provided with separation between males and females accommodation; and (d) be provided with adequate personal space and facilities for each *resident*.	A5 Every *sleeping compartment* in a *temporary accommodation building* – (a) has a double power point; and (b) has walls extending from the floor to the ceiling separating each *sleeping compartment*; and (c) has a minimum floor area of 5.6m^2 for each *bed*
Finishing	
P6 The internal walls of a *temporary accommodation building* are constructed to minimise the accumulation of dust, moisture, litter or waste and prevent harbourage of pests or anything that would adversely affect the hygienic condition of the building.	A6 Internal walls of *temporary accommodation buildings* are lined with fibre cement sheeting, plasterboard or the like and sealed at all junctions or penetrations.
Pest Control	
P7 *Openings* in the external walls of *temporary accommodation buildings* are adequately protected from airborne insects.	A7 (a) *Temporary accommodation buildings* have fly screens fitted to every external opening of – (i) a *sleeping compartment*, other than a door, window or other opening to a screened verandah; and (ii) facilities shared by, or intended to be shared by, *residents* who use different *sleeping compartments* in a *temporary accommodation building*.
Dust control	
P8 Surfaces surrounding *temporary accommodation buildings* are suitably sealed, taking into account	A8 *Temporary accommodation buildings* are – (a) surrounded by at least 6m of

MP 3.3 – Temporary accommodation buildings & Structures

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
the duration the *temporary accommodation building*s will remain on the site, to minimise airborne dust.	*ground cover* onsite where grounds are unsealed; or *(b)* on a site which is entirely covered with *ground cover*.
Vehicle access	
P9 Onsite roads, driveways, vehicle-circulation areas and vehicle parking bays associated with a *temporary accommodation building* are adequately prepared and have *ground cover* surfaces suitable for vehicular access.	A9 Onsite roads, driveways, vehicle-circulation areas and vehicle parking bays associated with a *temporary accommodation building* – a) of more than 100 *beds*; or b) with an *approval period* of more than six months; comply with AS2890.1-1993.
Outdoor amenity	
P10 A *temporary accommodation building* provides suitable *outdoor space* with a sealed surface for the recreational use of *residents*.	A10 Each *sleeping compartment* of a *temporary accommodation building* is provided with an outdoor area with a sealed floor protected from the weather by a roof and has – (a) access to an *outdoor space*, within 45m from the threshold of a *sleeping compartment*, with a floor area of not less than $30m^2$ for every 20 *sleeping compartments* or part thereof; or (b) a verandah attached to the *temporary accommodation building* with a floor area of not less than $6.30m^2$, with a minimum length of 3m and a minimum width of 2.1m.
Weather protection	
P11 The path between a *sleeping compartment* and any common facilities on the site are: (a) suitably protected from the weather; and (b) where immediately adjacent to a *sleeping compartment*, sealed with a suitable material to reduce noise generated by pedestrian traffic.	A11 Any *common areas* on the site are connected to every *sleeping compartment* by a covered walkway which: (a) is not less than 1.5m wide; and (b) has a surface sealed with concrete or bitumen; and (c) is protected from the weather by an impervious roof.
FACILITIES	
Bathing and sanitary facilities	
P12 *Residents* of *temporary accommodation buildings* are provided with *bathing and sanitary*	A12 Residents of *temporary accommodation buildings* – (a) have access to a *bathing and*

MP 3.3 – Temporary accommodation buildings & Structures

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
facilities for personal hygiene and that will – (a) provide users with adequate privacy; and (b) be located a convenient distance from each *sleeping compartment*.	*sanitary facility* with separating walls extending from the floor to the ceiling – i. located within the building; or ii. not more than 20m from the door of the *sleeping compartment* that they occupy; or (b) have an *ensuite* attached to the sleeping compartment that they occupy.
Laundry	
P13 Adequate laundry facilities are provided for *residents* and conveniently located from *temporary accommodation buildings* with the capacity to cater for the number of *residents* expected to use the facilities at any one time.	A13 *Temporary accommodation buildings* have, laundry facilities that – (a) are located not more than 45m from a *sleeping compartment*; and (b) have one automatic washing machine provided with each eight *beds* or part thereof; and (c) have one fixed wash tub provided with hot and cold piped water with each 20 *beds* or part thereof; and (d) have one double power point for appliances.
Kitchen	
P14 *Residents* of *temporary accommodation building* have access to adequate facilities to prepare and cook food.	A14 Residents of a *temporary accommodation building* have access to – (a) a kitchen food preparation area with storage and at least one double power point where the building or *structure* is connected to a consumer mains power supply; or (b) a *dining facility* where all meals are provided; or (c) food catered for externally.
Refrigeration facilities	
P15 Adequate food and drink refrigeration storage is provided for *residents* of *temporary accommodation buildings.*	A15 *Sleeping compartments* are provided with – (a) a 100 litre refrigerator in each *sleeping compartment*; or (b) access to a 500 litre refrigerator for every 20 *beds* serviced with amenities by *temporary accommodation buildings* or part thereof within a 20m distance of each *sleeping compartment*.
Dining facilities	
P16 Adequate *dining facilities* are provided for *residents*, in a	A16 *Temporary accommodation buildings* provide *dining facilities* which have –

MP 3.3 – Temporary accommodation buildings & Structures

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
convenient location to *temporary accommodation buildings*, with the capacity to cater for the number of *residents* expected to use the facilities at any one time.	(a) a seat for each *resident* with tables providing 600mm table-length per *bed*; and (b) a floor area not less than 18.4m^2 for each 20 *residents*, with an additional 0.92m^2 for every *resident* in excess of 20 persons; and (c) located no more than 70m from *sleeping compartments*.
Storage facilities	
P17 Weatherproof and lockable storage facilities, appropriate to the number of *residents* accommodated on the site, must be provided.	A17 For each *resident* accommodated on the site, a personal storage unit is provided which is: (a) weatherproof; and (b) lockable; and (c) at least 1.5m in height, 800mm in width and has a depth of 800mm.
Communications	
P18 Adequate communication facilities that can be used with a reasonable level of privacy to conduct personal conversations are provided for *residents* in *temporary accommodation buildings*.	A18 Where internet and telephone coverage is available, internet and telephone communication facilities are provided as follows – (a) at least one internet access facility per 25 beds provided; and (b) at least one communal telephone per 100 beds provided and telephones are to be provided in booths or in a suitable location to allow users reasonable privacy.
SUSTAINABLE BUILDING MEASURES **Energy and water resources**	
P19 A *temporary accommodation building* provides energy and water efficiency appropriate to the – ▪ class of the building; and ▪ length of the approval period.	A19 *Temporary accommodation buildings* have – (a) fluorescent or compact fluorescent lights; and (b) where hot water systems are installed, the hot water system is – (i) solar; or (ii) gas; or (iii) electric heat pump water heaters; or (iv) a combination of the above; and (c) where connected to reticulated water systems – (i) water pressure-limiting devices to restrict maximum water pressure

MP 3.3 – Temporary accommodation buildings & Structures

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
	to no more than 500 kilopascals (only *required* where the water pressures at the *temporary accommodation building* exceeds 500 kilopascals); and
	(ii) toilet cisterns with dual flush capability not exceeding 6 litres on full flush and 3 litres on half flush and shower roses have an AAA rating when assessed against AS/NZS6400–2004.

ENDNOTES

1 Laid before the Legislative Assembly on . . .

2 The administering agency is the Department of Infrastructure and Planning.