

Research Project:

Cumulative socioeconomic impacts of CSG Development in the Western Downs

DATA REPORT

INDICATORS OF CHANGE IN DALBY AND DISTRICT COMMUNITY

Interviews completed in 2015 Statistical data updated in April 2016 VERSION 7 - May 2016

Contact:

The University of Queensland, Assoc Prof Will Rifkin | Chair in Social Performance Centre for Social Responsibility in Mining | Centre for Coal Seam Gas

Sustainable Minerals Institute | The University of Queensland | Brisbane, QLD, 4072 AUSTRALIA

M: +61 (0) 401 701 217 | E: w.rifkin@uq.edu.au

W: www.csrm.uq.edu.au | www.ccsg.uq.edu.au | www.smi.uq.edu.au

Twitter: @resourcerules



The Dalby CSG-Development Story

Impacts on Dalby from coal seam gas development have been characterised with the help of key members of the Dalby community- community groups and welfare organisations, Dalby Chamber of Commerce, business owners and managers, real estate agents, police, staff from schools, training providers and local and state government.

These individuals were presented with statistical data on the following 'indicators' of social and economic impact to assess the data's accuracy from a local point of view and to gather further insight into the 'Dalby CSG-Development story':

1. Population 5. Training

2. Unemployment 6. Top offences recorded by police

7. Staff availability / skills shortages for local businesses 3. Income

8. Available tourist beds. 4. Housing

Interviews were completed in early 2015 towards the end of the construction phase of CSG development. The data has been updated in 2016 and an interpretation of the changes noticed by the researchers provided.

Population in Dalby was historically stable around 10,000. Population has increased steadily since 2008, which people described as a positive change. Effects include increased cultural diversity and a more diverse retail sector. People also noticed an increasing transience, which was said to be 'destabilising'.

Employment opportunities are generally good in Dalby as it has a range of industries and services. The CSG construction phase created many new jobs, which had flow-on effects for the local skills base, training, social connectedness and cultural diversity. A diverse economic base helped 'buffer' Dalby from some of the impacts of the boom experienced in 'resource towns', such as Chinchilla. For example, house prices did not spike, and rents did not increase to the same extremes. However, some industries and business sectors experienced skills shortages as workers were attracted to the higher wages thought to be offered by the CSG and related sectors. Some local business and services reportedly had difficulty retaining workers. As a result, some innovative non-monetary loyalty rewards were introduced such as offering handyman services to employees so they can relax on the weekends.

Training opportunities for local people were reported to have increased, although the uptake in non-CSG related training has been lower with fewer completions. A significant proportion of training is for CSG contract compliance. For example, experienced tradespeople require formal certification.

Local police data shows an overall decline in crime. Dalby was described as a 'very safe' and 'friendly' town. People interviewed do not think this character had changed. Traffic offences spiked in peak construction periods, but increased police presence and industry responses were thought to be effective. Nevertheless, people expressed road safety concerns. Drugs were thought be increasingly prevalent, but this was not attributed to CSG activities. A spike in Good Order offences in 2011/12 was effectively curbed by the introduction of the Liquor Accord. Good relations between CSG companies and local police help maintain public safety.

People said that Dalby has 'done well' in relation to CSG development. However, the view was expressed that local industries, services and products could be better utilised by CSG companies. Workers' camps on the town periphery were not thought to provide many local benefits. Although appreciated, community investment and contract allocation by industry was described as a 'pot luck' approach. People expressed the desire to see longterm and widespread benefits from investment.

This booklet provides detail on aspects of the 'Dalby CSG-development story' based on the range of priority indicators that we tracked. We would like to thank members*of the Dalby community for their cooperation and the gift of their time. We hope that we have done justice to their contributions to this investigation.

The UQ 'Cumulative Impacts' Research Team, February 2015.

^{*} Indicator trend data from public sources and interviews with 10 key stakeholders in each community identified as having specific knowledge mayors, school principals, real estate agents, police, community group leaders, hotel owners, chamber of commerce leaders and others in prominent roles. Charts of historical trends in indicators were used to prompt an explanation of what they perceived happened - cause and effect - plus comments, expectations and recommendations.



INTRODUCTION

The University of Queensland is conducting research into the social and economic impacts of coal seam gas (CSG) development. The project has focused on the combined impacts of the multiple CSG developments in the Western Downs region of Queensland as an initial case study. That focus has now expanded to include other local government areas – Maranoa, Toowoomba, and Isaac. In this document, we present findings on the town of Dalby.

Research project aims

- **Find key indicators** we want to identify ways to calculate and report the impact of multiple CSG projects in terms of a few numbers that are important and credible, e.g., weekly rents.
- Involve people from the community, government, and industry we are asking stakeholders to decide which 'indicators' are the most important to monitor. In working with stakeholders, we aim to help develop a shared understanding of social and economic development in the community and create a frame of reference for ongoing, collaborative decision-making in the region.
- Lessons to help other regions we want to develop models and approaches that can be used to measure, track and analyse cumulative impacts in other regions.

The research team

- Assoc. Prof. Will Rifkin, Chair in Social Performance, Centre for Coal Seam Gas (CCSG) and Centre for Social Responsibility in Mining (CSRM).
- Dr Jo-Anne Everingham, Senior Research Scientist, CSRM.
- Dr Katherine Witt, Postdoctoral Research Fellow, CCSG.
- Ms Sheryllee Johnson, Research Technician, CCSG.
- Ms Humaira Malik, PhD candidate, Sustainable Minerals Institute.
- Professor David Brereton, Associate Director, Sustainable Minerals Institute.
- Dr Vikki Uhlmann, Research Manager, CSRM (2013 -2014).
- Ms Kylie May, Research Analyst, CSRM (2013 2014).
- Ms Sarah Worthing, Research Analyst, CSRM (2014).
- Ms Kylie Bourne, Research Assistant, CSRM (2014).

Funding: The project receives industry funding through the Centre for Coal Seam Gas (CCSG), which is within the University of Queensland's Sustainable Minerals Institute. CCSG's industry partners include QGC, Arrow Energy, Santos, and Australia-Pacific LNG. These organisations are providing valuable information on their operations. Researchers are employed by the U of Queensland.

Collaborators: We are getting help from - Queensland government agencies and CSIRO researchers funded by the Gas Industry Social and Environmental Research Alliance (GISERA).

Timeframe: The data collection for the project has been occurring in 2013, 2014, and 2015, with updates planned for 2016 and 2017.

Community participation: In March 2014, a small research team from UQ started to visit communities to introduce the project. We gathered information, mostly from government sources, on impacts that key stakeholders in these communities perceived to be important. We visit each community to discuss that data, to get their insights on what has been occurring.

Reports: Project outcomes, recommendations, and reports have been released periodically 2013-2015, and they will continue to be released in 2016-2018 (*i.e.*, the duration of the project).

Each report contains an updated version of data presented previously. We hope that each page can be read and understood without us being present.

Ethics guidelines we follow: This study has been cleared by the human research ethics committee of the University of Queensland in accordance with the National Health and Medical Research Council's guidelines (Research Ethics clearance approval no. 2013000587).



Questions: Contact the lead researcher, Associate Professor Will Rifkin, Centre for Social Responsibility in Mining, SMI, The University Of Queensland, Brisbane, QLD 4072, Ph: 0401 701 217, Email: w.rifkin@uq.edu.au, www.csrm.uq.edu.au. If you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Officer on 07 3365 3924.

PRIORITY INDICATORS FOR DALBY AND DISTRICT

DEMOGRAPHICS OF DALBY

Map of Town and District

1. Population

EMPLOYMENT, BUSINESS & INCOME IN DALBY

- 2. Unemployment
- 3. Income

HOUSING IN DALBY

- 4. Median house prices
- 5. Median rents

WELLBEING IN DALBY

- 6. Traffic offences
- 7. Other offences
- 8. Total Offences

EXOGENOUS FACTORS

- 9. Rainfall
- 10. Petrol prices

CSG

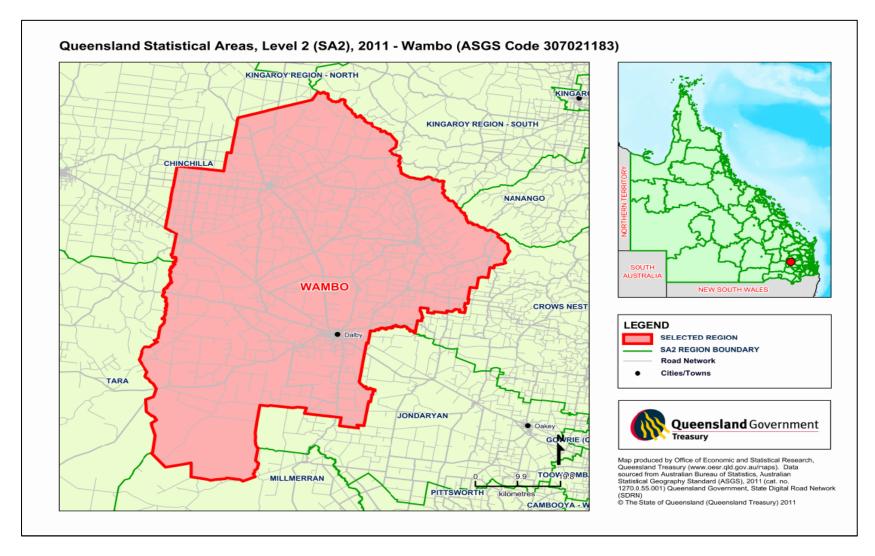
Graph of CSG wells drilled in Dalby and District

IMPACTS ON INDIGENOUS MEMBERS OF THE COMMUNITY

Efforts are ongoing to develop key indicators that are agreed as appropriate for measuring impacts on Indigenous residents and businesses in the Western Downs. A case study of the Aboriginal employment program of one proponent has been completed by UQ researchers. A UQ specialist has evaluated the Reconciliation Action Plan of a proponent. A UQ team has identified challenges in making and implementing agreements between Aboriginal groups and proponents in the coal seam gas arena (addressing issues like group politics and Native Title claims).

Indicator-related research being conducted

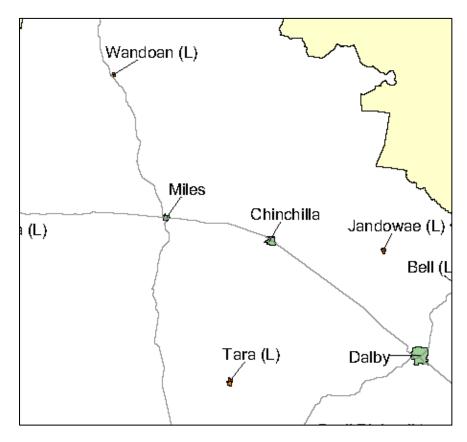
- Resilience; Community aspirations (CSIRO)
- Public health PhD study (UQ)
- Demographic & economic trends (CSIRO & UQ)
- Business (women in business) PhD study (UQ)
- Water Chemistry Atlas (UQ)
- Agriculture & co-existence (UQ & CSIRO)
- Environmental impacts biodiversity (CSIRO)



Source:

http://www.qgso.qld.gov.au/products/maps/qld-sa2-asgs-2011/qld-sa2-asgs-2011-wambo.pdf

Dalby UCL Map



Source:

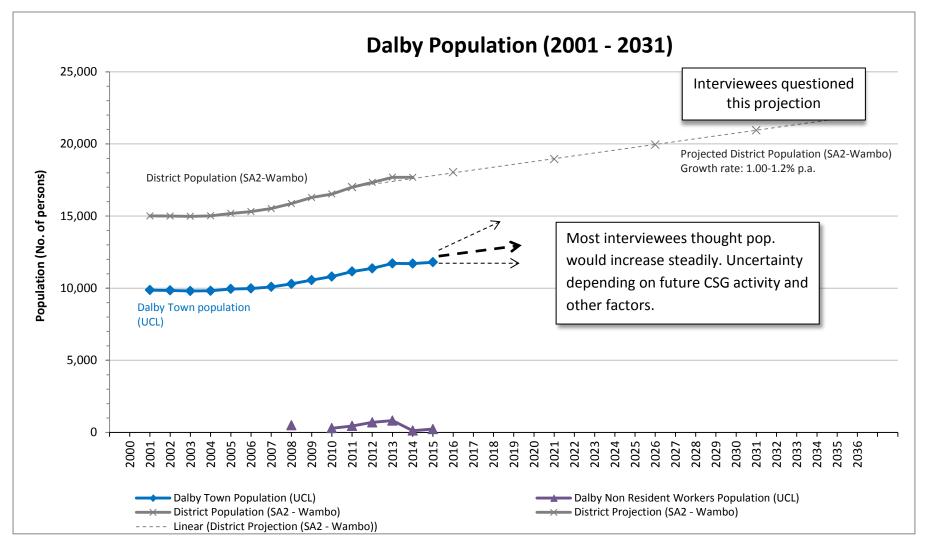
http://abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/1270.0.55.004July%202011?OpenDocument

Dalby postcode boundary 4405



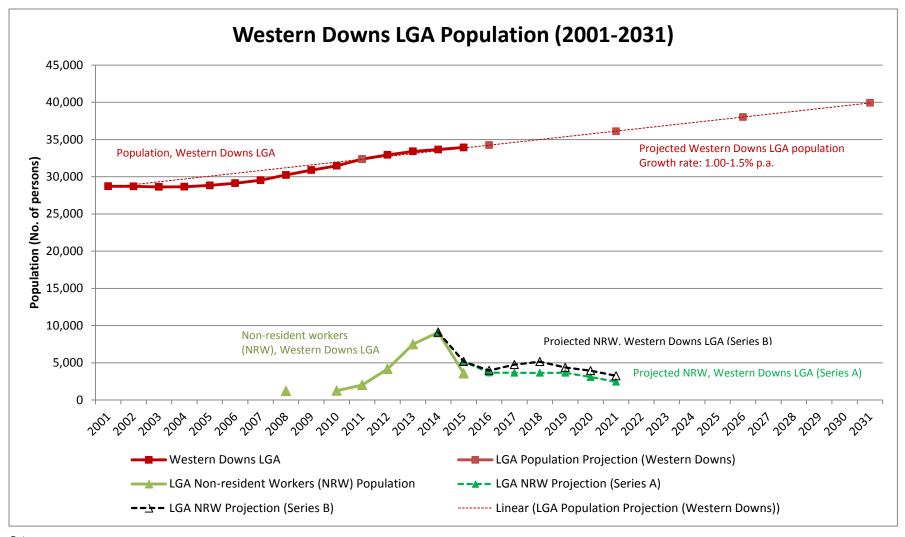
Source:

 $\frac{\text{https://www.google.com.au/maps/place/Queensland+4405@-}}{27.192504,150.555795,9z/data=!3m1!4b1!4m2!3m1!1s0x6bbdee3011680e9b:0x1c00eef4\\ \underline{d30912d0}$



Data sources

- Historic resident population data: Queensland Government Statistician's Office (QGSO), www.qgso.qld.gov.au, QRSIS database (based on ABS 3218.0, Regional Population Growth, Australia, 2013-2014)
- LGA resident population projection: Queensland Government Population Projections by LGA, 2013 Edition, https://data.qld.gov.au/dataset/projected-population-for-queensland
- Non-resident workers: QGSO Surat Basin Population Reports (2008, 2010-2014), http://www.qgso.qld.gov.au/products/reports/surat-basin-pop-report/index.php
- <u>Non-resident projections:</u> QGSO Surat Basin non-resident population projections, by local government area (LGA), 2015 to 2021, http://www.qgso.qld.gov.au/subjects/demography/population-projections/tables/surat-basin-non-resident-pop-proj-lga/index.php
- Series A: based on projections for current projects; Series B: based on projections for current projects plus projects with EIS approved.

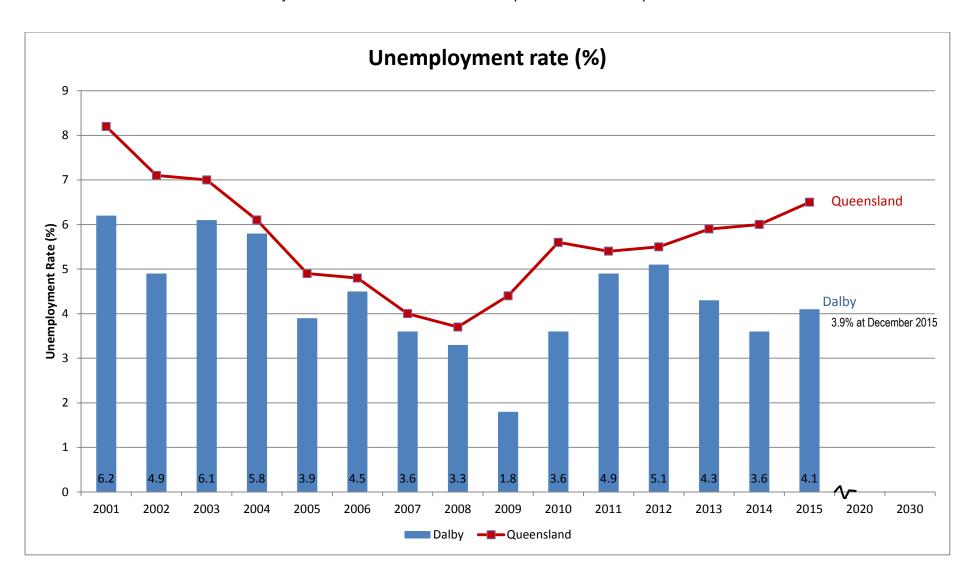


Data sources

- Historic resident population data: Queensland Government Statistician's Office (QGSO), www.qgso.qld.gov.au, QRSIS database (based on ABS 3218.0, Regional Population Growth, Australia, 2013-2014)
- LGA resident population projection: Queensland Government Population Projections by LGA, 2013 Edition, https://data.qld.gov.au/dataset/projected-population-for-queensland
- Non-resident workers: QGSO Surat Basin Population Reports (2008, 2010-2014), http://www.qgso.qld.gov.au/products/reports/surat-basin-pop-report/index.php
- Non-resident projections: QGSO Surat Basin non-resident population projections, by local government area (LGA), 2015 to 2021, http://www.qgso.qld.gov.au/subjects/demography/population-projections/tables/surat-basin-non-resident-pop-proj-lga/index.php
- Series A: based on projections for current projects; Series B: based on projections for current projects plus projects with EIS approved.

Data (2015) & Perceptions (2014) about population

- *History and Trend:* Dalby has a long history as an agricultural and manufacturing centre, as well as the regional service provider. Dalby population has been traditionally steady at around 10,000.
- *Change:* Rising since 2008. Population growth between 2001 and 2007 was 2.4%; population growth from 2008-2014 was 14.6%. About 1 non-resident worker (NRW) for every 12 residents.
- **Perceived change:** Population growth is generally welcomed among those interviewed as a positive change. Dalby is thought not to have experienced the dramatic population increases of 'resource towns'. Noticeable cultural diversity, increasingly transient population (mostly lower socio-economic status).
- **Conclusion:** Those interviewed in Dalby did not think they had experienced the same degree of impacts as 'resource towns' like Chinchilla. They described Dalby as *not* being a 'resource town' because agriculture and manufacturing remain major industries.
- **Community recommendations:** Interviewees expressed concern over an apparent inequity in the distribution of benefits throughout the population from CSG development. Workers camps need to better incorporate local businesses in the supply chain of goods and services.
- 2016 Update: Population has continued to increase. NRWs have increased again since 2014.

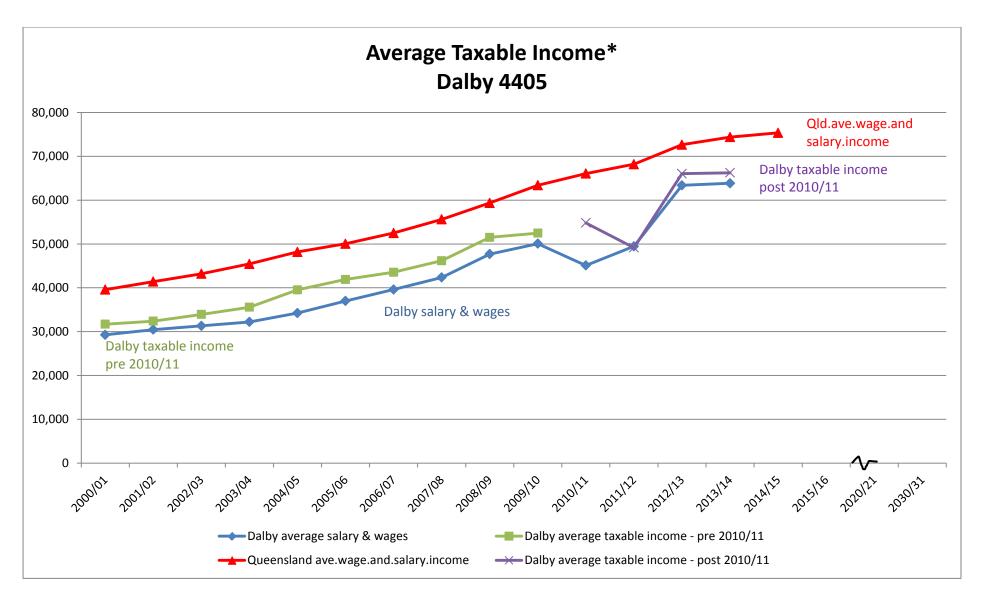


^{*}The unemployment rate represents the number of persons unemployed as a percentage of the labour force, which includes all those persons over the age of 15 years who are employed plus all those who are unemployed but actively looking for work.

Sources: Qld Government Statistician's Office (QGSO) http://qrsis.oesr.qld.gov.au/pls/qis_public/QIS1110W\$COLLGRP.Startup?p_user_id=edtert Western Downs Regional Council Economic and Demographic Profile: Dalby 2012

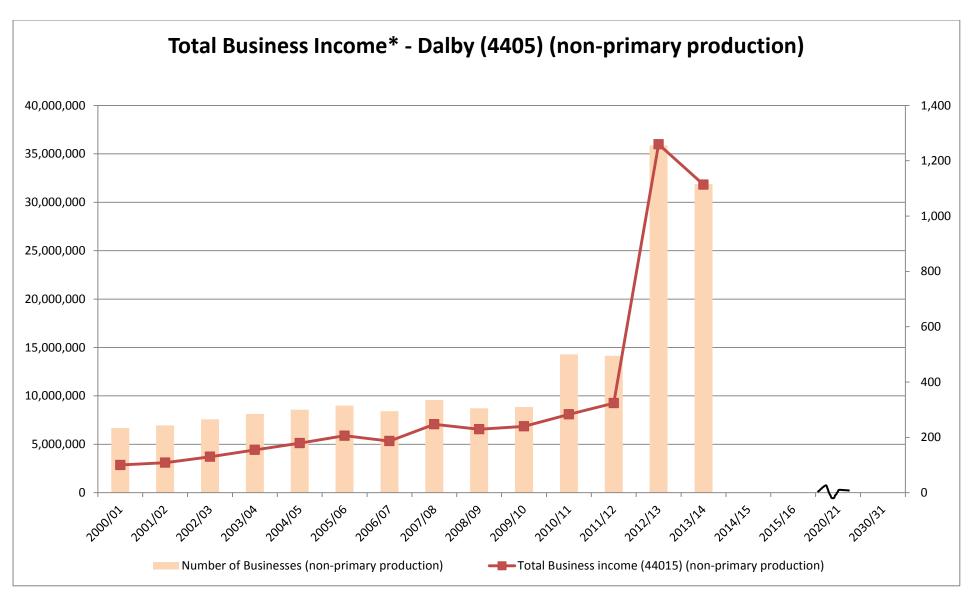
Data (2015) & Perceptions (2014) about employment

- *History:* Dalby has a diverse employment base and is the regional training centre. Locations around Dalby attract long-term unemployed.
- **Change:** Unemployment rates remain below Qld rates with markedly low unemployment in 2009 and rising since then. Those interviewed attributed this trend to the many job opportunities within the CSG sector, even for unskilled workers.
- **Perceived change:** Many locals are seen to have found employment with the CSG sector, causing skill shortages in some sectors (agriculture and manufacturing, in particular). These openings (outside the CSG sector) were filled by newcomers and international workers.
- **Expectations:** Those interviewed expect that unemployment will flatten out or continue to rise as CSG activities transition into the operations phase. It was reported that most sectors are already beginning to reduce staffing in response to a slowing economy. Interviewees hoped that upcoming major construction projects (e.g., 2nd range crossing) would boost employment.
- **Conclusion:** Employment opportunities are generally good in Dalby as it has a broad range of industries and services. The CSG construction phase created many new jobs, which had far-reaching impacts on the local skills base, training, social connectedness and cultural diversity.
- Implications for next project/stage: Clearly identify the skills needed; mitigate the impacts of a vacuum of skilled workers that emerges for other industries.
- **Community recommendations:** Better transparency needed between the CSG industry and local business about the skill set needed to work on CSG projects. "People cannot up skill if they don't know what to do".
- 2016 Update: Unemployment rose slightly in 2015 and remains below the Qld rate.



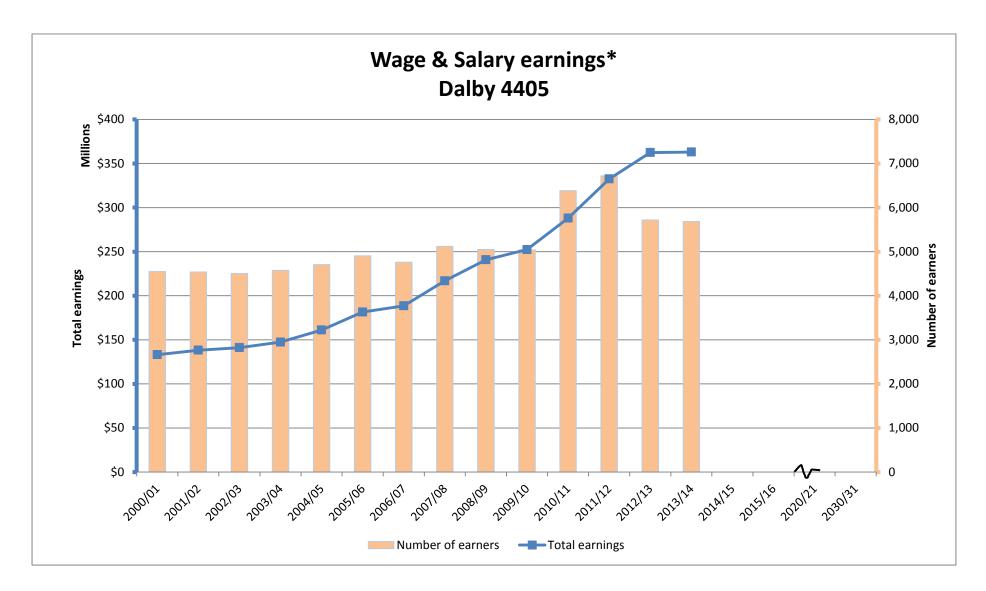
^{*}Original data - No discounting applied

^{*}Average taxable incomes reported by ATO until 2009 excluded losses. Averages from 2010 include all taxable incomes including incomes of 0 and losses. Sources: Australian Taxation Office, Research and Statistics (https://www.ato.gov.au/)



^{*}Original data - No discounting applied

Sources: Australian Taxation Office, Research and Statistics (https://www.ato.gov.au/); data for 2014, 2015 has not been released as at March 2016.



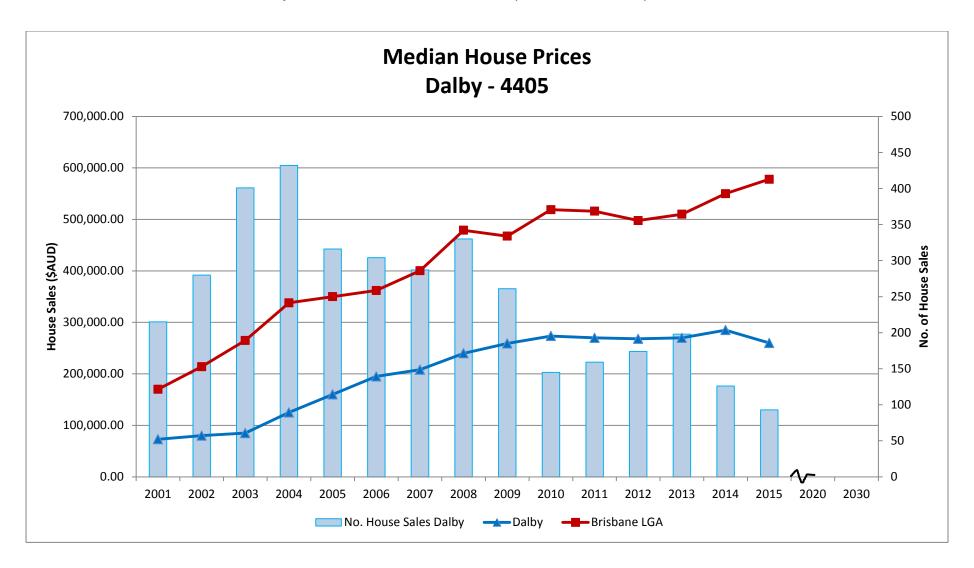
^{*}Original data - No discounting applied

Sources: Australian Taxation Office, Research and Statistics (https://www.ato.gov.au/)

Data (2015) & Perceptions (2014) about income

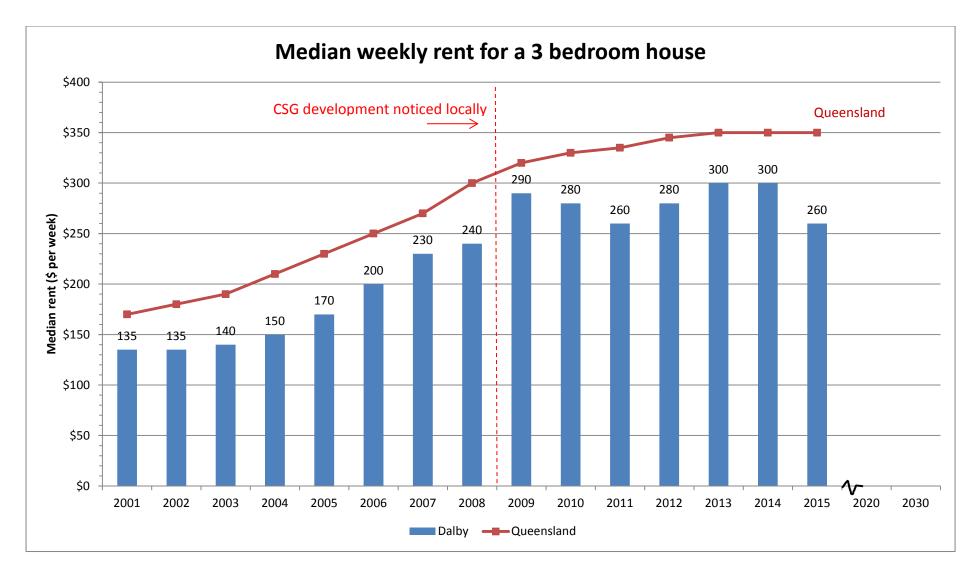
- **History:** Dalby has always had a significant proportion of lower income earners, as well as some very high income earners.
- Change: Average incomes remain lower than the Qld average.
- **Perceived change:** "Town did well." Some employers were forced to pay higher wages to attract and retain staff. Interviewees noted that incomes would be higher than the Qld average. "When farming families don't have money to spend in town, businesses close". "CSG kept retail going through the drought".
- Conclusion: Dalby's diverse economy protected it from the resource boom, and CSG development prompted new businesses to grow. But, some local businesses were severely impacted by outmigration of employees, the need to pay higher wages, and missing out on CSG contracts.
- **Expectation**: Interviewees report that high wages create false expectations about the value of labour. People are having to return to non-CSG jobs, and they now still expect high wages. Those interviewed suggested that wages would continue to rise, although at a slower rate, with new jobs from the range crossing and airport.
- Community Recommendations: CSG companies should be clear, early about what skills/services/products they will need and assist local businesses to produce their capability statements.
- **2016 Update:** New data on total wage and salary earnings show a marked increase in both the amount of earnings and the number of wage earners. Total business incomes more than tripled from 2012-2013, and the number of businesses more than doubled. Both have declined slightly in 2013-2014.

UQ Research Project: Cumulative socio-economic impacts of CSG development in Western Downs



^{*}Measured annually except for 2015, which was measure up to September 2015 Sources: Price Finder (http://www.pricefinder.com.au/flyover/?locality=4421&propertyType=House)

This information has been compiled for use in consultation with the Dalby Community



Measured in the month of June for each year.

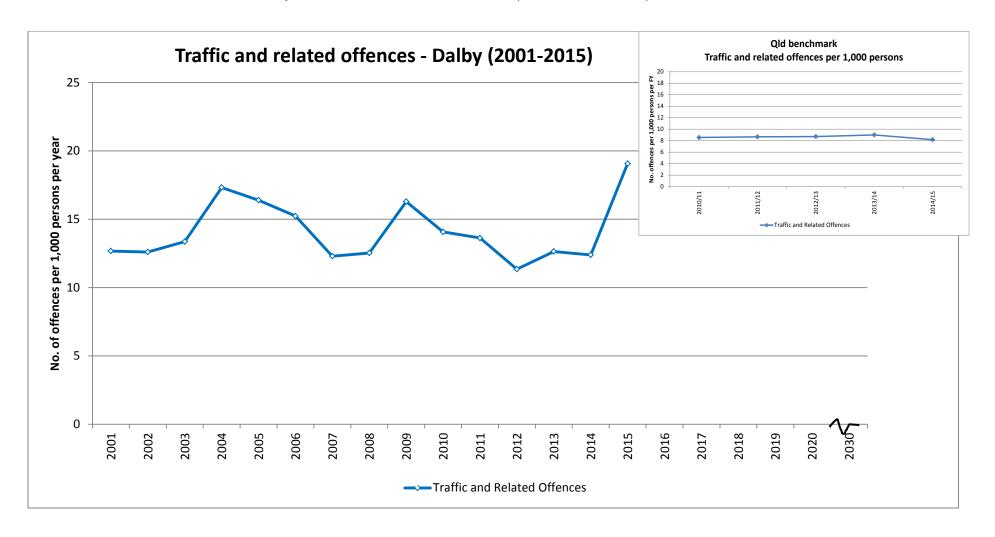
Sources: Queensland Government Statistician's Office 2015

Residential Tenancies Authority, Rental Bonds data (Queensland Government Statistician's Office derived).

This information has been compiled for use in consultation with the Dalby community

Data (2015) & Perceptions (2014) about Housing

- *History*: Those interviewed said that, historically, Dalby was a very affordable place to live. As a regional service hub, there has always been steady demand for rental accommodation.
- **Change:** House prices increased steadily from 2003, levelling off from 2010. Rents became more affordable in 2014 (\$320 pw).
- **Examples:** "From 2008/2009 until early 2014, there has been a continual demand for houses, primarily by investors wishing to capitalise on CSG development in the area".
- **Perceived change:** New estates, but 'cheap and rushed' to capture the 'boom'. Many houses now vacant & investors losing money. Rents high, but Dalby has not experienced as much outmigration due to housing unaffordability as other towns in the region. Worker camps have helped take pressure off the town itself, but non-resident workers "don't spend money in town".
- Conclusion: Dalby did not experience the extreme housing affordability issues of other towns.
- *Expectations*: Prices and rents are expected to decline due to housing oversupply / drop in demand.
- **Community recommendations:** Manage 'unrealistic' expectations of councils, developers, and investors. Also, CSG companies should consider long-term impacts of short-term housing demand. Camps counter housing impacts in towns, but they do not contribute to the local economy; so companies should mandate that their long-term workers live in communities.
- **2016 Update:** House sales have slowed significantly, although prices remain stable (slight decrease). Rents have continued to fall.



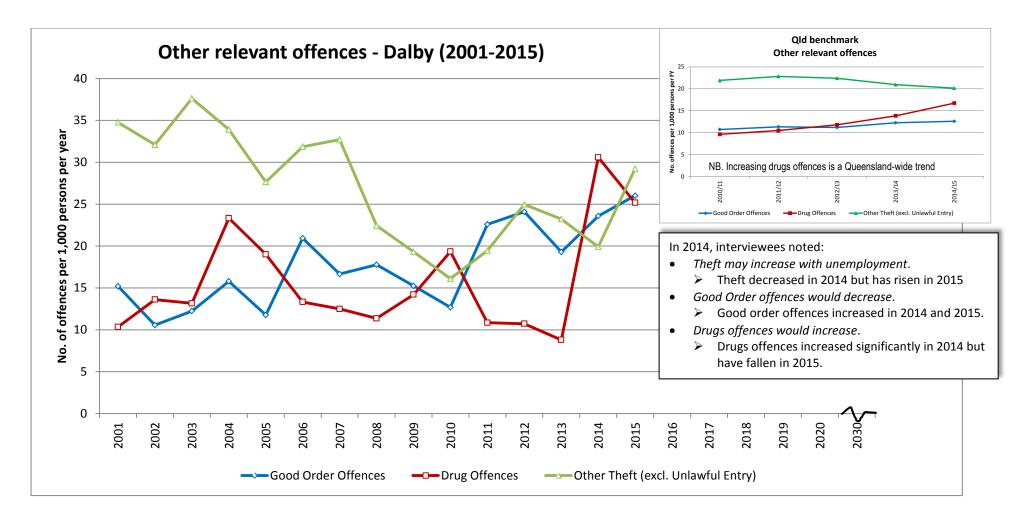
Data source:

Queensland Police Online Crime Statistics: https://www.police.qld.gov.au/forms/crimestatsdesktop.asp

Data retrieved for Dalby Queensland Police Service Area. Graphs represent data post-filtered for Dalby Suburb only which best matches the Dalby UCL population estimates.

Crime rates per 1,000 persons calculated using ABS population estimates for Dalby UCL (as reported by the Queensland Government: https://data.qld.gov.au/dataset/erp-ucl-qld/resource/86230aac-cf9e-436a-8050-96032824848a), which is the town centre and approximately a 5km radius.

Qld Benchmark statistics sourced from https://www.police.qld.gov.au/rti/published/about/Crime+Statistics.htm



Data source:

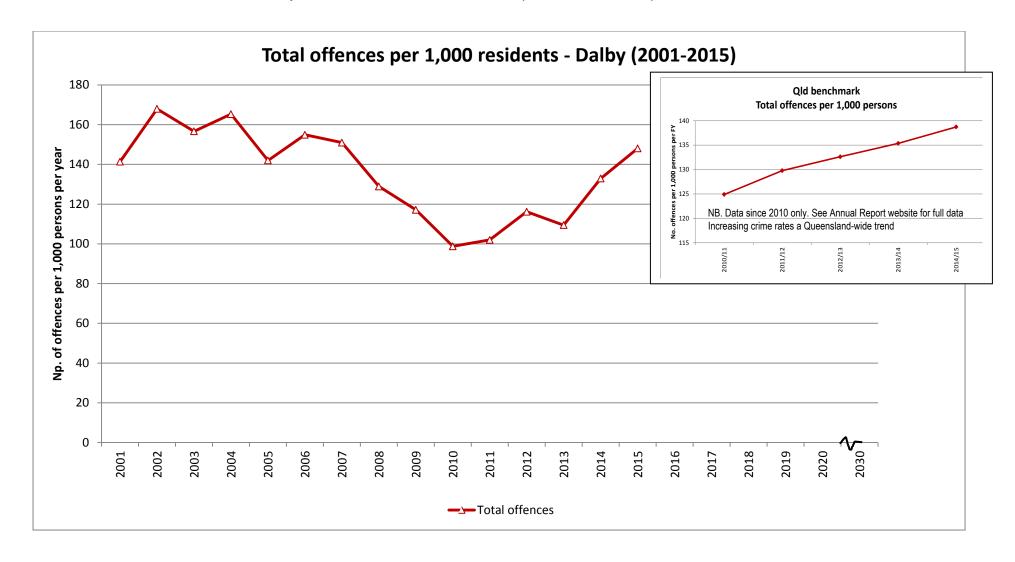
Queensland Police Online Crime Statistics: https://www.police.qld.gov.au/forms/crimestatsdesktop.asp

Data retrieved for Dalby Queensland Police Service Area. Graphs represent data post-filtered for Dalby Suburb only which best matches the Dalby UCL population estimates.

Crime rates per 1,000 persons calculated using ABS population estimates for Dalby UCL (as reported by the Queensland Government: https://data.qld.gov.au/dataset/erp-ucl-qld/resource/86230aac-cf9e-436a-8050-96032824848a), which is the town centre and approximately a 5km radius.

Qld Benchmark statistics sourced from https://www.police.qld.gov.au/rti/published/about/Crime+Statistics.htm

This information has been compiled for use in consultation with the Dalby community



Data source:

Queensland Police Online Crime Statistics: https://www.police.qld.gov.au/forms/crimestatsdesktop.asp

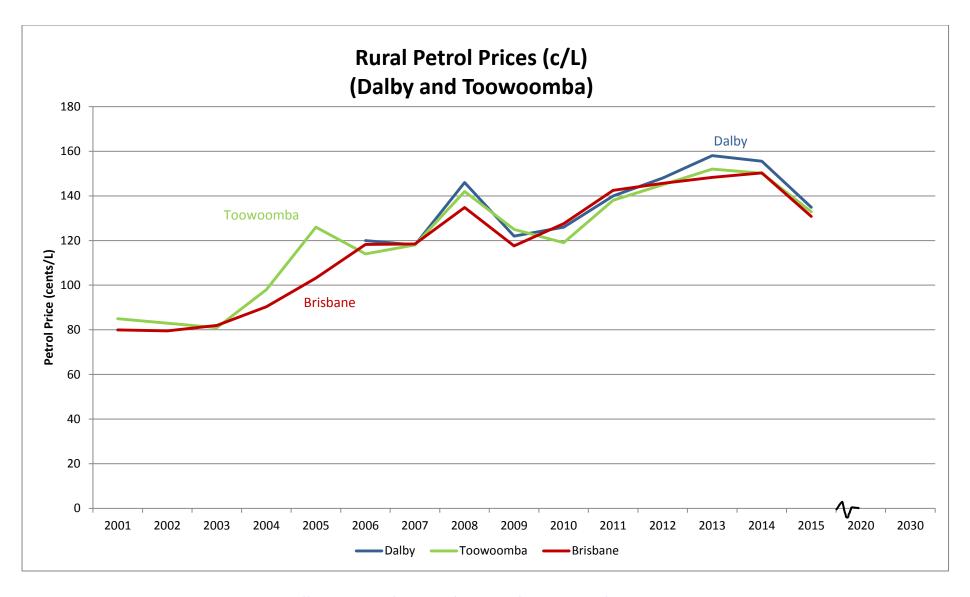
Data retrieved for Dalby Queensland Police Service Area. Graphs represent data post-filtered for Dalby Suburb only which best matches the Dalby UCL population estimates.

Crime rates per 1,000 persons calculated using ABS population estimates for Dalby UCL (as reported by the Queensland Government: https://data.qld.gov.au/dataset/erp-ucl-qld/resource/86230aac-cf9e-436a-8050-96032824848a), which is the town centre and approximately a 5km radius.

Qld Benchmark statistics sourced from https://www.police.qld.gov.au/rti/published/about/Crime+Statistics.htm

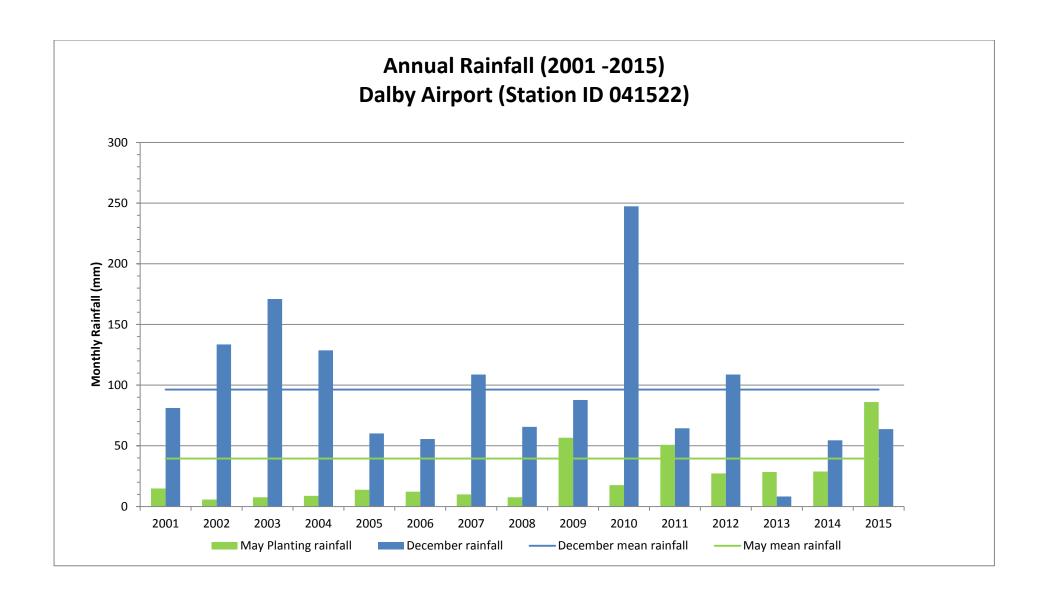
Data (2015) & Perceptions (2014) about safety & wellbeing

- *History and Trend*: Those interviewed described Dalby as a "very safe" and "inclusive" place to live. Theft has historically been the most reported offence in Dalby.
- **Change:** Total reported offences decreased from 2001 to 2013 but rose in 2014. Traffic and Drug offences increased in the peak construction periods: 2004-07 (Kogan Creek power station); and 2009-10 (CSG development). Good Order and Theft offences rose from 2010; have decreased since 2012. Good Order offences rose in 2014.
- **Perceived change**: Most interviewees suggested that drug offences would increase as they saw drug use to be an increasing problem in the community [the most recent data shows this trend to be the case]. The increased presence of police vehicles on the roads was thought to have reduced traffic offences since the peak in 2009. The Liquor Accord was said to be an effective response to increasing Good Order offences.
- **Expectations**: Offences may rise again with increasing unemployment and financial stress after the peak construction phase. Domestic Violence was said to be increasing. Unemployment has numerous 'flow-on' effects for community wellbeing. Drugs thought to continue to be a problem, as they are perceived to be easily accessible. Increases in the number of drug offences were not attributed to CSG development.
- **Conclusion**: Police and industry responses to traffic and safety issues were effective. Increasing drug offences may signal a problem, which could be local, state-wide, or national.
- **Community recommendations:** Establish a Liquor Accord early. There are good relations between local police and CSG companies in Dalby, which was seen as important for maintaining law and order.
- **2016 Update:** Total number of offences has increased since 2013. Still around the Qld benchmark. Drug offences are higher than for Qld. Good order offences have increased, not decreased as expected.



Source: Australian Automobile Association (2015) http://www.aaa.asn.au/aaa-agenda/affordability/latest-fuel-prices/

This information has been compiled for use in consultation with the Dalby community

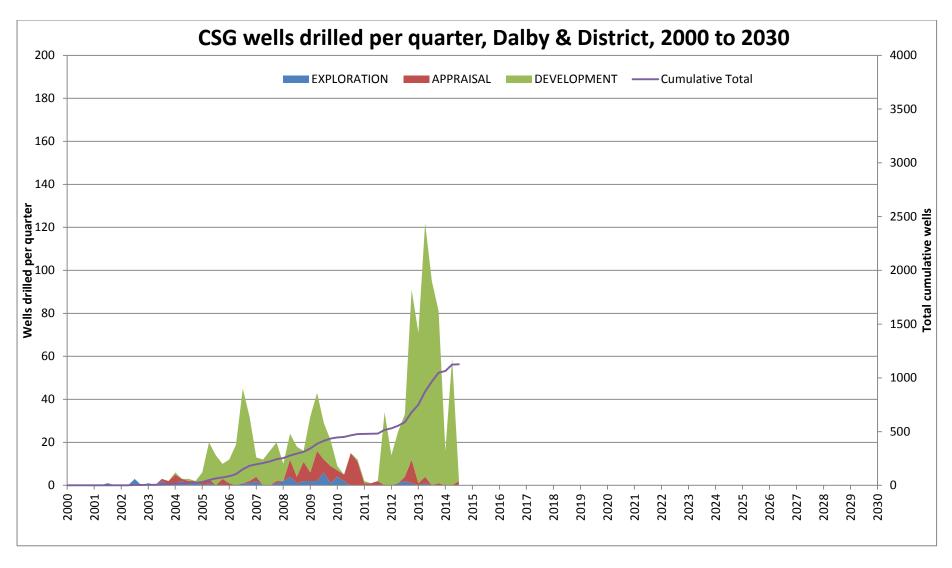


Alignment of Visions for Dalby

Source> Category	Community groups	WDRC for all towns	CSIRO	UQ
Population	Steady growth Embraces cultural diversity	1.7% per year population growth for 2010-2031 (to 10,000)	CSG companies together providing population projections	No Dalby-specific findings
Wellbeing	Safe and friendly Cohesive Good access to services	Crime rate equal to or less than Qld average. 'Retention of local heritage'.	Tidy town. Integration of CSG workers. Re-build strong community. Friendly town. Young people retained.	Certainty about future. People committed to local community. Stronger linkages between towns.
Housing	Affordable, especially for lower income residents	Median house price should be equal to or less than Qld average.	No housing shortages.	Sufficient affordable housing. No sudden price increases.
Employment	Diverse skills base Opportunities for youth	'Explosion' in resource support industries; unemployment rate equal to or less than Qld average.	Local employment opportunities during construction.	'Have nots' benefit, too.
Business	Maintain and build economic diversity Build capacity to achieve successful businesses	Significant business hub / service centre for major projects. Diverse economy.	Strong retail centre. CSG contracts. Diverse economy where you can get everything you need.	Diverse economy Distribution of benefits from resources development Business capabilities increased.
Educ./Training	Opportunities for youth Opportunities for life-long learning	Skilled workforce.		Skilled locals & immigration.
Governance	Fair and equitable Long-term vision and planning	Balanced growth.	Uncertain future. Need good town planning. Housing solutions planned earlier.	Reduced social divisions, improved services. Housing market distortions managed. Better road conditions.







Source: Dept Natural Resources and Mines 2014

This information has been compiled for use in consultation with the community