Research Project:

Cumulative socioeconomic impacts
of CSG Development in the Western Downs

DATA REPORT

INDICATORS OF CHANGE
IN
DALBY AND DISTRICT COMMUNITY

Interviews March - April 2017
Statistical data updated in March 2017 (using 2016 data)
This version June 2017

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The Dalby CSG-Development Story (to 2016)

The ‘Dalby CSG-Development story’ was developed in consultation with 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.

Participants were asked to discuss and comment on statistical data on ‘indicators’ of social and economic impact. These discussions provided a local point of view and insight into the ‘Dalby CSG-Development story’, to be used in combination with the publicly available data. The following indicators were discussed:

1. Population   5. Training
2. Unemployment   6. Top offences recorded by police
3. Income    7. Staff availability / skills shortages for local businesses

Interviews were conducted in 2014, towards the end of the construction phase of CSG development with follow-up interviews in 2017.

The population in Dalby was historically stable at around 10,000 people. Since 2008, when CSG development was first noticed locally, the population has increased steadily. People have described this as a positive change, with benefits including increased cultural diversity and a more diverse retail sector. People also noticed an increasing transience, which was said to be ‘destabilising’. The population of non-resident workers sharply declined after 2013 with a brief increase in 2014/15. The population has now stabilised at around 12,000 people, and non-resident workers account for less than 0.5% of population.

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 was thought to ‘buffer’ Dalby from some of the impacts 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.

Although unemployment has risen since 2012/13 it has stabilised at around 4%, well below the Qld rate of 6.2%.

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. The total business income almost quadrupled in 2012-2013, and the number of businesses more than doubled. While business income has decreased since then, the number of businesses declined in 2014 but has risen to reach a new high in 2015. Training opportunities for local people were reported to have increased, with a significant proportion for CSG contract compliance. For example, experienced tradespeople required formal certification to be eligible for CSG procurement. Other training opportunities were provided.

Dalby was described as a ‘very safe’ and ‘friendly’ town. Traffic offences spiked in the construction period, but increased police presence and industry responses were thought to be effective. In 2016, road safety is less of a concern. Drugs were thought be increasingly prevalent, but this was not attributed to CSG activities. The overall crime rate has increased since 2013, with a sharp rise in 2015/16. Good order offences have increased, not decreased as expected. Drug offences and good order offences are higher than the Qld rate.
People expressed the desire to see long-term 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 2017.

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, Industry Affiliate, Centre for Coal Seam Gas (CCSG) and Centre for Social Responsibility in Mining (CSRM).
- Dr Katherine Witt, Research Fellow, CCSG.
- Dr Jo-Anne Everingham, Senior Research Scientist, CSRM.
- Mrs Sarah Choudhury, CSRM (2017)
- Professor David Brereton, Associate Director, Sustainable Minerals Institute (2012-2016).

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).

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.

**Reporting timeframes:** The data collection for the project has been occurring annually since 2013. Project outcomes, recommendations, and reports have been released periodically. This latest version includes information from the 2017 interviews. Updates are planned for 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, Dr Katherine Witt, Centre for Social Responsibility in Mining, SMI, The University Of Queensland, Brisbane, QLD 4072, Ph: 0418 619 341, Email: k.witt@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
  - Population

**EMPLOYMENT, BUSINESS & INCOME IN DALBY**
- Unemployment
- Income

**HOUSING IN DALBY**
- Median house prices
- Median rents

**WELLBEING IN DALBY**
- Selected offences

**EXOGENOUS FACTORS**
- Rainfall
- Petrol prices

**IMPACTS ON INDIGENOUS MEMBERS OF THE COMMUNITY**
Efforts are ongoing to select the most appropriate indicators 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).
<table>
<thead>
<tr>
<th>Other Indicators Examined for Chinchilla</th>
<th>Indicator-related research being conducted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Business skills shortages</td>
<td>• Resilience (UQ)</td>
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<tr>
<td></td>
<td>• Community wellbeing (CSIRO)</td>
</tr>
<tr>
<td>2. Training</td>
<td>• Public health – PhD study (UQ)</td>
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<td></td>
<td>• CSG and health study design (UQ, CSIRO)</td>
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<tr>
<td>3. Tourism impacts</td>
<td>• Demographic &amp; economic trends (CSIRO &amp; UQ)</td>
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<tr>
<td>4. Governance: A. Council amalgamation</td>
<td>• Business (women in business) – PhD study (UQ)</td>
</tr>
<tr>
<td></td>
<td>• Water Chemistry Atlas (UQ)</td>
</tr>
<tr>
<td>B. DA approval trend</td>
<td>• Agriculture &amp; co-existence (UQ &amp; CSIRO)</td>
</tr>
</tbody>
</table>
This information has been compiled for use in consultation with the Dalby community
This information has been compiled for use in consultation with the Dalby community.
Data sources

Data sources


Notes about Non resident workers projections (2016) by LGA

- The projection series are largely based on the status of projects in the environmental impact statement (EIS) process at the time of preparation (March 2016). The projections also include some projects outside the approvals process.
- Series A projection is based on the number of non–resident workers on-shift who were engaged in existing resource operations and associated infrastructure activities in the area at June 2015. The projection takes into account future changes to those operational workforces as advised by resource company sources, as well as the estimated non–resident construction and operational workforces of Category A projects (i.e. those that had reached final investment decision (FID)) at the time of preparation.
- Series B projection includes the Series A projection plus projected growth in the non-resident population arising from Category B projects (those that have an EIS approved but have yet to reach FID).
Data & Perceptions about population

- **History and Trend:** Dalby is the most populated centre in the WDRC area. It has a long history as an agricultural services and manufacturing town, as well as the seat of local government. Population traditionally steady at around 10,000.

- **Change:** Population increases from 2007/08. Growth rates increase to around 2% per year from 2008 to 2010, the same as for the WDRC area. In 2010/11 growth peaks at 3.3% per year and again at 3% in 2012/3. Growth from 2008-2014 was 11%. Since 2013 stabilising just below 12,000. Influx of non-resident worker (NRW) peaked in 2012/13 with 1 NRW for every 12 residents; sharp decline in 2013/14 and further toward 2015/16 to currently less than 1 NRW for every 200 residents.

- **Perceived change:** Population growth is generally welcomed among those interviewed as a positive change. Dalby perceived not to have experienced the rapid population increases of “resource towns” and experiences of lost social identity or connection were not widely reported. Noticeable increase in cultural diversity, increasingly transient population (mostly lower socio-economic status). Interviewees enjoyed seeing the CBD “busy and vibrant”. In 2017, shops closing and “much less traffic”.

- **Expectations:** Locals accustomed to periodic and minor fluxes due to external factors, such as drought, crop seasons. They thought that population could increase or decrease in response to a number of factors, including CSG projects. Expect population will continue to rise slowly. Expect that NRWs will bring local benefits by shopping locally.

- **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. Dalby seen to mostly benefit from CSG development.

- **Implications for next project/stage:** Steady or staged population growth appears to be more acceptable to those interviewed than a sudden, rapid increase. They questioned the high projected populations and suggested that the projections must signal further CSG development. Balance where NRWs stay so there are local benefits.

- **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. Address community uncertainty about medium to long-term CSG industry requirements for NRWs and possible population growth/decline.

- **2017 Update:** Population has increased concurrently with CSG developments, now stabilising around 12,000. After sharp decline in 2013/14 and brief increase of NRW in 2014/15, NRW now less than 0.5% of population.
Data sources

- Jun2009-Jun2010 from DEEWR file 'Unemployment salm_data_files_2008-2013'
Data & Perceptions about employment

- **History:** Dalby has a diverse employment base and is the regional training centre. Locations outside of Dalby reported to attract long-term unemployed.

- **Change:** Unemployment rates follow historical trend and remain below Qld rates. Very low unemployment in 2008/9 and 2012/13 but with elevated rates in between. A peak of 4.6% in 2010/11 may suggest the movement of unemployed people to Dalby as rents rose in towns nearer to CSG activity. Since 2012/13 unemployment rate has increased to approx. 4%, still below the Qld rate of 6.2%.

- **Perceived change:** Many more job opportunities directly and indirectly from CSG (e.g. child care workers), for both skilled and unskilled workers. Many training opportunities benefitted local youth especially. Skill shortages reported in most sectors (agriculture and manufacturing, in particular), as workers move to the CSG industry. These shortages (outside the CSG sector) were filled by newcomers and international workers. Resulting salary increases put strain on some sectors not directly benefitting from CSG industry.

- **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, inland rail) would boost employment.

- **Conclusion:** Employment opportunities are generally good in Dalby as it has a broad range of industries and services. Employment provided by the CSG industry may have “offset” higher unemployment due to drought. The CSG construction phase created many new jobs, which had far-reaching impacts on the local skills base, training, connectedness and cultural diversity.

- **Implications for next project/stage:** Clearly identify the skills needed; mitigate the impacts of “a vacuum of skilled workers” and salary increases that emerge 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”.

- **2017 Update:** Unemployment has risen since 2012/13 and is steady at around 4%, below the Qld rate of 6.2%.
Original data - No discounting applied


All statistics for 'Taxable individuals only' were sourced from the relevant years' Taxation statistics publication, and therefore include individual income tax returns processed by 31 October of the year after the end of the income year. For example, the 2014-15 statistics include data up to 31 October 2016.
Original data - No discounting applied

Sources: Australian Taxation Office, Research and Statistics (https://www.ato.gov.au/)
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- Original data - No discounting applied
- Sources: Australian Taxation Office, Research and Statistics (https://www.ato.gov.au/)

Dalby Business Income (non-primary production) (2000/01 to 2014/15)

CSG development noticed locally

- Number of Businesses (non-primary production) 4405 Dalby
- Total Business Income (non-primary production) 4405 Dalby

- Number of Businesses (non-primary production) 4405 Dalby
- Total Business Income (non-primary production) 4405 Dalby

8
Data & Perceptions about income

- **History**: Dalby has always had a significant proportion of lower income earners, as well as some very high income earners. Average personal income slightly less than the Qld average, but increasing at a similar rate. Business incomes increasing steadily.

- **Change**: Increased average personal incomes were evident in 2012/13 after a dip in 2011/12, perhaps related to flooding in 2010. Notable increase in total wages and salaries and the number of earners from 2008 peaking in 2012/13. In 2013/14, the number of wage earners dropped as did the total earnings, perhaps as contracts ended. The number of businesses increased by 60% in 2010/11 and total business earning more than tripled (340%). Business incomes down since, but still well above historical trend.

- **Perceived change**: “Town did well.” Some employers were forced to pay higher wages to attract and retain staff. Interviewees thought 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 becoming overly dependent on a single industry, 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. Training opportunities increase “readiness for future large projects”.

- **Expectation**: Interviewees report that high wages create false expectations about the value of labour. People are having to return to non-CSG jobs, but they 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. Need to consult/address increased salary expectations vs. declining business income.

- **2017 Update**: The number of wage earners has increased again, consistent with lower unemployment. Total wage earnings are lower though, suggesting lower paid jobs. The average personal income has decreased since 2012/13. Number of businesses stable but total business earnings have decreased markedly.
Data sources

Dalby (Wambo) Median Weekly Rent for a 3 Bedroom House (2000/01 to 2015/16)

Data sources

Dalby (Wambo) Residential and Non-Residential Building Approvals (2000/01 to 2015/16)

Data sources

Data & Perceptions 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 until 2008/9 with strong demand and increased sales in 2004. Since 2009, concurrently with arrival of CSG industry, house prices have steadied and then decreased with lower numbers of sales. There was a significant spike of residential building approvals in 2009/10, likely to capitalise on expected growth from CSG activity. Rents almost doubled between 2003 and 2009, remained stable until 2014, and declined since then by approx. 25% to “more affordable” levels.

- **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”. More 4+ bed houses for rent. Many houses now vacant & investors losing money. Rents higher, but Dalby did not experience 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”. Since 2014 decreasing housing prices and rents.

- **Conclusion**: Dalby did not experience the extreme housing affordability issues of other towns.

- **Expectations**: Prices and rents are expected to increase again, as the market recovers from an oversupply of housing.

- **Community recommendations**: Manage ‘unrealistic’ expectations of some council members, 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.

- **2017 Update**: In 2016, house sales remain slow and prices continue to drop. Rents have continued to fall since 2014 and are now the same as they were 10 years ago.
Data sources

- Crime data rates (per month per 100,000 people) obtained by Queensland Police Service (QPS) Division and Queensland State, https://www.police.qld.gov.au/online/data/
- Data was adjusted to be presented as annual data per 1000 people
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Data sources

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- Data was adjusted to be presented as annual data per 1000 people
Data & Perceptions about safety & wellbeing

- **History and Trend:** Dalby was described as a “very safe” and “inclusive” place to live. Theft has historically been the most reported offence in Dalby.

- **Change:** The overall crime rate was high in 2005 (almost one and half times the Queensland rate) but decreased from 2005 to 2011, but has been increasing since 2011. Drugs offences increased in 2009/10 but then dropped and remained low until 2014/15, when they increased to above the Queensland rate. Increases in Good Order offences seen from 2009/10. Traffic offences variable: an early spike in 2008/9 but low since then until 2014/15, with a marked increase in 2015/16.

- **Perceived change:** Most interviewees suggested that drug offences would increase as they saw drug use to be an increasing problem in the community. The increased presence of police vehicles on the roads was thought to have reduced traffic offences since the peak in 2009; however, the data suggests a sharp increase since 2014. 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 be an increasing problem, as they are perceived to be easily accessible. Increases in the number of drug offences in 2009/10 were not thought to be related 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. Critically assess role of rapid CSG ‘boom’ and ‘bust’ within interplay of increasing unemployment & declining salaries, housing ‘oversupply’ & decreasing rent, and increasing number of offences (esp. drug & traffic).

- **2017 Update:** Total number of offences has increased since 2013, with a sharp rise in 2015/16. Now 40% above the Qld benchmark. Good order offences have increased, not decreased as expected. Drugs and Good Order offences are slightly higher than Qld average.
UQ Research Project: Cumulative socio-economic impacts of CSG development in Western Downs

**Dalby Rainfall**

Historical average

## Alignment of Visions for Dalby

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