Research Project:

Cumulative socioeconomic impacts of CSG Development in Queensland

DATA REPORT

INDICATORS OF CHANGE IN WANDOAN AND DISTRICT COMMUNITY

Interviews May 2016
Statistical data updated in May 2016
VERSION 5 – May 2016

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The Wandoan CSG Development Story

Impacts on Wandoan from coal seam gas development have been characterised with the help of key members of the Wandoan and district community* – Wandoan businesses, community committees, and local 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 ‘Wandoan CSG Development story’:

1. Population
2. Unemployment
3. Income
4. Housing
5. Top offences recorded by police
6. Rainfall
7. Rural Petrol Prices
8. CSG Well Drilling

Those interviewed said that Wandoan was historically a ‘quiet, close knit little town’ in a geographically widespread area. They recalled a rise in economic activity in 2008 with commencement of the Wandoan Coal Project and drilling of some CSG wells. This activity was followed by a period of growth between 2010 and 2014. Despite this recent resource industry activity, data show that the Wandoan town resident population has been decreasing gradually from 450 in 2001 to around 340 in 2015. While the town population decreased, the number of non-resident workers increased markedly. In 2014, with both coal and CSG development, the NRW workforce equalled over 70% of the permanent population. This change in the composition of the population was seen as having caused a ‘shock’ to longer –term residents.

Several families left Wandoan after their farms were bought by Xstrata Coal (now Glencore), leaving about 150 families in the area at the time of the Census in 2011. These departures significantly reduced the number of school enrolments. It also reduced the number of coal industry funded apprentices and trainees and the number of volunteers and opportunities for community service employees in Wandoan. In late 2013, the coal development was put on hold by Glencore Xstrata, something that occurred just as CSG development took off in the area. The rural families who had sold to Xstrata and left never returned. They were replaced with an influx of coal and CSG workers, mostly male. This shift was reported in our interviews as affecting the community’s sense of wellbeing and town identity.

Another notable change was the volume of CSG-related traffic on the roads and in the town of Wandoan. Interviewees noted that some key businesses changed to cater for the new non-resident workers. They also noted that the traditional, local demands for hotel venues and accommodation were given second priority. An increase in new businesses and business income between 2011 and 2014 has been welcomed, said interviewees. However, they cited a simultaneous loss of connection within the community.

With CSG pipeline construction and phase 1 of CSG construction now finished, locals say that they feel uncertain about the town’s future. They believe that the short-term benefits of resource development are over, even as phase 2 of the CSG Project Charlie commences. Many do not firmly believe that the Glencore-Xstrata coal development will proceed. They say that, if it does, they do not expect to see any of the benefits in the Wandoan community. This view is based on prior experiences of workforce policies in the resources sectors that locate workers in camps out of town with only few locals employed in the continuing phases of development. The Wandoan community is seeking alternatives that provide long-term manageable growth. They view the town as traditionally reliant on the agricultural industry (cattle and timber milling).

House prices and rents in Wandoan have historically been much lower than the Brisbane or state median. Recent increased demand for housing was attributed to the CSG sector. Rent for a 3-bedroom house rose above the state median in 2012. These rents rose 58% during 2013, before falling 10% in 2014. They returned to pre-CSG levels in 2015. House sale prices climbed at a similar pace to Brisbane sale prices until 2013 when
the relocation of many CSG workers to camps outside Wandoan reduced demand for housing and median sale prices dropped before rebounding in 2014.

A lack of affordable housing was stated by several interviewees to be the biggest impact of CSG development. It was blamed for causing families in the lower socio-economic groups to leave town. Some businesses chose to subsidise workers’ rents. Both sale prices and rents have since continued to drop back to near ‘affordable’ levels. However, interviewees expressed concerned that there are now ‘a lot of empty houses and duplexes’ – including those constructed by the CSG industry for their staff.

Local police data shows that reported traffic offences per 1,000 people rose significantly from 2012. The figure reached many times the Queensland average. Police vigilance and detection of offences increased over the period. By late 2014, these numbers remained well over the Queensland average but were decreasing by 2015. The figures for reported good order offences and drug offences per 1,000 people also rose significantly above the Queensland average. That corresponds with a rising rate for the detection of road offences and vehicle searches, something commented on in the interviews. With the cooperation of the CSG companies, severe penalties were imposed on CSG workers breaching good order laws. Additionally, workers were largely relocated to camps outside the town, as noted. Transport strategies of the CSG companies were implemented. They involved buses for workers to and from camps and multi-occupant car trips. These measures can be attributed with helping to reduce the road traffic and related traffic offences after 2013.

Interviewees stated that many Wandoan businesses had benefited from the ‘CSG boom’, including hotels and motels. Business incomes and wage and salary earnings rose significantly from 2010 to 2014. Casual workers did not have to leave town to find work, they added. However, some businesses closed. Certain investments in town businesses were described as not realising their full potential, with reduced opportunities to do work with the CSG industry. Examples included a local transport company and hotel and unit developments that came on line late in 2013. Interviewees noted that a number of pre-existing businesses continue to struggle in the post-boom economy.

Unemployment has historically been lower than the Queensland average and traditionally steady in the town of Wandoan. It was low during coal mining activity in 2008 and then began rising again (contrary to the State averages in 2009-10). Interviewees felt that this rise in unemployment in 2008-2010 reflected the uncertainty around the Wandoan coal project, the impact of the global financial crisis, and the local flooding and reconstruction in the region. Unemployment then fell in Wandoan in 2011-13 (as State unemployment rates rose) but has been rising since. Locals expect unemployment to remain static - even as CSG construction resumes on Project Charlie and potentially on the Wandoan coal project. Our interviewees indicated that a certain proportion of the unemployed leave town in search of work, while another proportion remain in the district as long-term unemployed.

Business and personal earnings were both still rising in 2015. Locals suggested that key workers earning higher wages remained in town. They explained that low-income earners were among the first to leave and/or return to the ranks of unemployed.

Wandoan interviewees described their town as the “tail of the dog”. That is, changes in global markets for coal and gas caused local effects that rippled through larger communities such as Dalby and Chinchilla, but the effects were felt proportionally in a more profound way in Wandoan. There is uncertainty expressed about the extent to which CSG development will provide business benefits to the community, given that camps are distant from the town centre.

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

* 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 concerns, 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 Wandoan.

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 Sherylle Johnson, Research Technician, CCSG.
- Ms Humaira Malik, PhD candidate, Sustainable Minerals Institute.
- Professor David Brereton, Associate Director, Sustainable Minerals Institute.
- Ms Sarah Worthing, Research Analyst, CSRM (2014).
- Ms Kylie Bourne, Research Assistant, CSRM (2014).
- Lisa Kelly, Research Officer, CCSG (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 University 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 WANDOAN AND DISTRICT

DEMOGRAPHICS
1. Population

EMPLOYMENT, BUSINESS & INCOME
2. Unemployment
3. Income

HOUSING
4. Median house prices
5. Median rents

WELLBEING
6. Traffic offences
7. Other offences
8. Total offences

EXOGENOUS FACTORS
9. Rainfall
10. Petrol prices

CSG ACTIVITY
Graph of CSG wells drilled in Wandoan 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. 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</th>
<th>Indicator-related research being conducted</th>
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<tbody>
<tr>
<td></td>
<td>• Resilience; Community aspirations (CSIRO)</td>
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<tr>
<td></td>
<td>• Public health – PhD study (UQ)</td>
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<td>• Demographic &amp; economic trends (CSIRO &amp; UQ)</td>
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<td></td>
<td>• Business (women in business) – PhD study (UQ)</td>
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<td>• Water Chemistry Atlas (UQ)</td>
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<td>• Agriculture &amp; co-existence (UQ &amp; CSIRO)</td>
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<td>• Environmental impacts – biodiversity (CSIRO)</td>
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UQ Research Project: Cumulative socio-economic impacts of CSG development in Western Downs

Data sources


This information has been compiled for use in consultation with the Wandoan community.
Western Downs LGA Population (2001-2031)

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)

This information has been compiled for use in consultation with the Wandoan community.
Data & Perceptions about Population

- **History and trend**: Population was declining. That contrasts with growth in the broader Western Downs LGA.

- **Change**: Population has stabilised. The number of non-resident workers (NRWs) in the district has increased significantly from 52 in 2008 to 230 in 2014 (halved in 2015). Since 2013 the majority of NRWs have lived in camps outside the town.

- **Perceived Change**: Community has not recovered from loss of 6 landholder families whose 35 properties were bought by resource companies. Benefits from resources development - employment, incomes, and business opportunities – are seen to have ended.

- **Expectations**: The population will continue to decline; no growth as a result of resource development is expected by those interviewed. Concerns about groundwater, air quality, traffic, and neglected empty housing accommodation as CSG and coal development continues.

- **Implications for the next project/stage**: Another industry is sought to drive growth; CSG industry or government funding desired for tourism, community events, and services and to help develop future options.

- **Conclusion**: Town population has stabilised and residents believe it will either remain stable or continue to decline. An increase is desired.

- **Community Recommendations**: NRWs to be accommodated closer to enable community benefits from spending and business opportunities. Funding of local business and labour for community projects also recommended, e.g., funding sporting teams, sports facility upgrades, and health services.

- **2016 Update**: Population continues to decrease and will continue to do so; NRWs living in camps outside the town continues but with little activity in the town, which could boost population.
*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.


This information has been compiled for use in consultation with the Wandoan community.
Data & perceptions about Employment

- **History and trend**: Wandoan’s unemployment rate is lower (3.4%) than the Queensland rate (6.1%) in 2003. Joint Miles-Wandoan district figures.

- **Change**: From a low figure, trough reached in 2005, mild peak in 2006, decline until a mild peak in 2010; decline continues to low point (0.7%) in 2013. Increase to 1.8% in 2015.

- **Perceived Change**: Rise in unemployment in 2008-2010 reflected uncertainty about coal project, GFC, and flooding in region. People came to town or stayed awaiting work. Low-income earners seen to be first to leave town or return to ranks of unemployed.

- **Expectations**: Unemployment expected to remain static as CSG construction resumes on Project Charlie and potentially on Wandoan coal project. A proportion of unemployed seen to leave town in search of work; another proportion remains in district as long-term unemployed.

- **Implications for next project / stage**: Interviewees seek a new industry, or investment by CSG industry and government - local business and labour undertaking community projects.

- **Conclusion**: Unemployment rate has fluctuated, with a general downward trend since 2003. Interviewees describe town as the "tail of the dog", where changes in coal and gas industries have significant local effects. Uncertainty about extent to which CSG development will provide business benefits, given that camps are distant from the town centre.
Average Personal Income*
Wandoan 4419

*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.

This information has been compiled for use in consultation with the Wandoan community
2009-2014 Earnings growth continues as resource companies hire labour & support industry grows (hotels & transport).

2016 Earnings expected to be high as professionals & managers remain; some low-income earners leave.

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

This information has been compiled for use in consultation with the Wandoan Community.
Total Business Income* Wandoan (4419)
(non-primary production)

New businesses emerge in resource support industry; loss of 6 local families lowers spending & business earnings.

2016 Business income outlook subdued & not expected to grow (interview).

“if world resource prices had not fallen, there would have been more years of business income growth & some new businesses would still exist” (interview).

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

This information has been compiled for use in consultation with the Wandoan community
Data & Perceptions about Incomes

- **History and trend**: Average taxable income trending upward, but remains well below Queensland’s average

- **Change**: Increasing trend; several major families leave town after their properties are bought by resource industry. In 2010-11 and 2012-13, average income rises sharply; similar trend in Qld. Number of earners increases slightly, then decreases to a low point at 2009-10. Step increase to 2010/11; steady to 2013-14, during peak in CSG construction. Number of businesses and business income variable from 2000 to 2011. Sharp increase in 2010-2013, during CSG construction period and flood reconstruction.

- **Perceived change**: Wages grew with CSG boom; seen as likely to be industry workers new to area. Low-skilled low-income earners first to leave as CSG industry slows; key high-skilled high-pay CSG workers remain. New businesses started in anticipation of CSG contracts; quickly folded as contracts did not emerge and industry slowed. Few signs of increased wealth in community.

- **Expectations**: Community does not expect to see further growth in non-primary businesses or income from return of CSG activity to area. “All the benefits from CSG have been had.”

- **Conclusion**: Average income is lower than Queensland average, and has increased at a rate similar to the State’s increase over time. Since 2007-08, income figures have fluctuated. The number of earners and businesses, as well as total income and business income, increased significantly from 2010-11, when CSG construction and flood reconstruction commenced. Since 2011, average wage and salary incomes have increased, but average taxable income remains low. Business incomes remain high in 2013-14. Interviewees stated that CSG industry workers, contractors, and those businesses providing services to the industry (e.g., hotel accommodation) are main beneficiaries.

- **Community recommendations**: CSG industry should provide more opportunities to local businesses and workers. Enhanced by accommodating more CSG workers in town.

- **2016 update**: Personal and business incomes not expected by those interviewed to grow with return of CSG activity.
Median rent for a 3 bedroom house
Miles-Wandoan SA2

- CSG activity noticed locally
- Queensland median

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 Wandoan community.
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**Median House Price**

**Wandoan 2001-2015**

Pricefinder [http://pricefinder.com.au](http://pricefinder.com.au);

This information has been compiled for use in consultation with the Wandoan community
Data & Perceptions about Housing

- **History and trend:** Traditionally older & low cost housing. Median rents trend upward 2001 to 2011 ($95 to $260/week), lower than Qld median. In 2013 to 2014, median rents ($550 to $493/week) significantly exceeded Qld median ($350/week). Fell sharply in 2015, below Qld levels ($288 v $350/week). House sale prices below Brisbane average, though increasing 10-fold from 2001 to 2012 ($30,000 to $362,500).

- **Change:** Rents were relatively steady; increased significantly starting in 2006. Sharp increase in 2012, peak in 2013 (CSG construction). Decline to 2015 in Miles-Wandoan district.

- **Perceived change:** Construction of new duplexes and hotels were “too late to benefit fully from the boom”, said interviewees. Now an excess of accommodation exists, and population is declining.

- **Expectations:** Rents and housing prices expected to remain at affordable levels without much change in demand or prices as CSG and coal activity increases.

- **Conclusion:** Rents in Wandoan changed more quickly than Queensland figures, and much more than house prices; rents spiked to higher than Queensland average in 2013 and 2014.

- **Implications for next project/stage:** Manage extreme rent and house price increases that price locals out of the area. Current oversupply; concerns raised about empty houses deteriorating.

- **Community recommendations:** More CSG workers to be located in accommodation park; leave lower priced houses and rentals for locals. Concerns about how to attract new industry and residents to area.

- **2016 update:** House prices and sales have fallen in 2015-16 to roughly pre-CSG rates. Not expected to rise with further CSG or coal activity. Excess of brand new duplexes expected to soak up any demand.
UQ Research Project: Cumulative socio-economic impacts of CSG development in Western Downs


- 2010-2012 increased CSG traffic & new policing strategy: higher vigilance & detection rates
- Slowdown in CSG traffic & offences as construction phase ends
- New CSG strategy: locate workers in camps, use buses & reduce single occupant traffic

Data source:
Data retrieved for Wandoan Queensland Police Service Area. Graphs represent data post-filtered for Wandoan Suburb only which best matches the Wandoan UCL population estimates.
Crime rates per 1,000 persons calculated using ABS population estimates for Wandoan 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.


This information has been compiled for use in consultation with the Wandoan community
UQ Research Project: Cumulative socio-economic impacts of CSG development in Western Downs

**Other relevant offences - Wandoan (2001-2015)**

- New CSG strategy for good order: locate workers in camps & harsher penalties for staff
- 2010-2012 New policing strategy for traffic: higher vigilance & detection for drugs
- 2014-15 higher drug detection, including picking up locals

**Qld benchmark Other relevant offences**

- **Good Order Offences**
- **Drug Offences**
- **Other Theft (excl. Unlawful Entry)**

**Data source:**

This information has been compiled for use in consultation with the Wandoan community.
Total offences per 1,000 residents - Wandoan (2001-2015)

Data source:


This information has been compiled for use in consultation with the Wandoan community.
Data & Perceptions about Wellbeing

- **History and trend**: Rate of traffic offences lower than Qld’s in 2001. Total offences higher than Qld’s rate (mainly traffic & some drug offences). Wandoan traffic & total offences increased to 2013; then dramatic decrease in traffic & related offences. Other relevant offences peaked between 2012 & 2014.

- **Change**: Traffic offences varied until sharp increase in 2010, peak in 2013, much higher than Qld rate. Theft rates vary, but steady over time. Rates of drug & good order offences vary, steady until sharp increase in 2011; Wandoan rates much higher than Qld rates. Good order offences peaked in 2013; drug offences peaked in 2014, in Wandoan and in Qld. Total offences in Wandoan declined 2002 to 2006. Increasing trend with sharp rise from 2011. Total offences peak in 2013; rate much higher than Qld’s rate.

- **Perceived change**: Increased traffic from CSG activity coupled with local roads not built for this volume of traffic drove up number of traffic offences, say interviewees. Change in policing strategy led to higher vigilance and detection of traffic and drug offences during this period.

- **Expectations**: Traffic is expected to rise in outer areas near CSG camps, Charlie project, and coal project (Woleebee). Road improvements to this area (Bundi Road) expected to reduce number of traffic incidents.

- **Conclusion**: Rates of offences have varied, though major increases were seen after 2010 in traffic, drug, & good order offences. No significant change in theft rates. Peaks in offences are in 2013 and 2014.

- **Implications for next project/stage**: A large volume of traffic will use upgraded roads near CAG and coal developments; not much traffic or CSG workers expected in town.

- **Community recommendations**: Continued police presence on roads and around hotels where other offences occur with increased CSG workers. Some other local roads used by CSG traffic could benefit from CSG funds for improvement.

- **2016 update**: Interviewees expect a return to pre-CSG levels of good order, drug, and theft levels as most CSG workers are not expected to reside in town or frequent the hotel.
Monthly Rainfall (mm)


This information has been compiled for use in consultation with the Wandoan community
Rural Petrol Prices (cents/L)
Dalby and Toowoomba compared with Brisbane


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