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Trends in community wellbeing and local attitudes to coal seam gas development, 2014 - 2024

Western Downs and eastern Maranoa regions, Queensland

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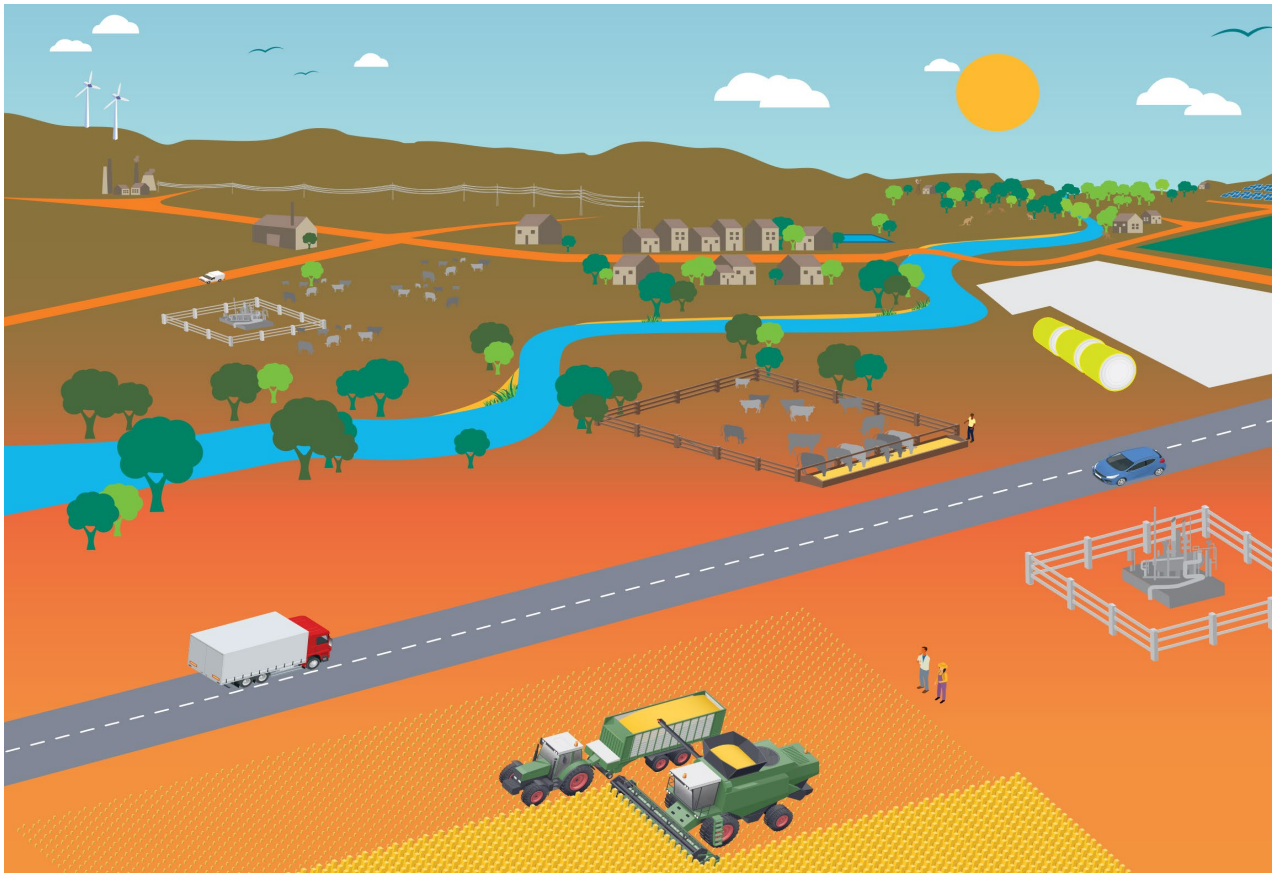
April 2025



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Project page

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Acknowledgments

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Our gratitude goes to the research participants from the Western Downs and Eastern Maranoa regions who participated in our telephone survey. In addition, we thank Q & A research for the professional and friendly manner in which they conducted our telephone surveys.

Executive summary

Coal seam gas development in the Surat Basin has been underway since the 2010's with considerable activity in the Western Downs and Maranoa regions of southern Queensland. In 2014 CSIRO conducted a baseline survey of community wellbeing and perceptions of coal seam gas development in the Western Downs and have continued monitoring local concerns and perceptions through subsequent surveys. In 2016 the eastern half of the Maranoa region was added to the Western Downs sample and reported as a separate region. This research report conveys the findings of the fourth survey conducted since 2014 and reports on changes over the decade 2014-to 2024.

The four tranches of data collection also correspond with different industry phases and changes in the number of wells in activity.

- 2014: Construction phase of the industry (wells and associated infrastructure), requiring a large drive-in/drive-out (DIDO) and fly-in/fly-out (FIFO) labour force and extensive investment. Total wells[1] (new and existing) – 5,618.
- 2016: Post-construction phase, requiring a reduced labour force with an associated economic slowdown experienced in the region. Total wells (new and existing) – 6,933.
- 2018: Early operational phase, with expanding industry development across the Western Downs and Maranoa regions. Total wells (new and existing) – 8,055.
- 2024: Fully operational phase, with new CSG developments continuing, particularly around Dalby in the Western Downs region. Total wells (new and existing) – 11,323.

The report highlights shifts in community concerns and perceived benefits from CSG development over the decade, how community wellbeing has changed, and how the community sees itself adapting to this industry. This information enhances our understanding of community priorities and provides valuable insights for government and industry planning and informs adaptive governance and decision-making in the face of large-scale infrastructure development.

What we did

From late-May to mid-July 2024, we conducted a telephone survey of 601 residents from the Western Downs region and the eastern half of the Maranoa region (401 and 200 residents respectively), which took 30 minutes to complete on average. Quota sampling and data weighting were used to ensure the sample was representative of the regions on age, gender, location, and subregion.

[1] When referring to number of wells by a specific year, we use the total number of coal seam gas wells by the end of that calendar year, as reported in the "All bore hole and well locations" dataset from the Queensland Spatial Catalogue (Queensland Government). Data publication date: January 16, 2025. See Figure 66, Appendix A1 showing the number of existing wells in 2014 and changes between survey years.

What we measured

The survey investigated seven main topics and comprised approximately 180 questions. The topics included: 1) perceptions of community wellbeing and the 15 different dimensions underpinning community wellbeing, 2) expected future community wellbeing, 3) perceptions of community adapting to CSG development, 4) attitudes and perceptions of CSG and the sector, including concerns, benefits, risks, trust, fairness and governance related to CSG activity, 5) knowledge, interest, and information sources about CSG development, 6) demographic questions, and 7) attitudes towards renewable energy infrastructure, and relevant learnings from CSG that could be applied to renewable energy development in the region.

Results in brief

Community Wellbeing

- Overall community wellbeing remained robust over all four phases of the industry cycle.
- Place attachment remained high over the decade, indicating a strong sense of belonging and level of pride towards their local towns and surrounding areas.
- Social factors such as community spirit, community cohesion, and local trust along with services and facilities consistently remained the key drivers of a sense of community wellbeing.
- Perceptions of economic opportunities and environmental management showed the greatest change over the decade.
    - The community were most dissatisfied with economic opportunities in 2016, which aligns with the post-construction phase of the industry when an economic slowdown was experienced by many small businesses across the region. In 2024, perceptions of economic opportunities had rebounded into positive territory and were higher than 2014 levels.
    - Perceptions of environmental management such as management of groundwater, nature reserves and ensuring the sustainability of local faming land for the future showed sustained and gradual improvement over the decade, shifting from dissatisfied perceptions on average in 2014 to satisfied levels in 2024. However, there were still some concerns about risks to underground water from CSG activities.
- Perceptions of economic opportunities featured only once in the four surveys as an important driver underpinning community wellbeing. This was in 2016, which corresponded with its lowest perceived level over the ten-year period.
- Perceptions of personal safety were lower in 2024 than earlier years, though still satisfactory. This potentially reflects a broader trend within Queensland where concern for youth crime and community safety was an election issue in the 2024 state elections.

Expected future community wellbeing

- Expectations of future community wellbeing improved in 2024 compared to previous years.
    - In 2024, most people in Western Downs and eastern Maranoa indicated their community wellbeing would stay the same or improve (81% and 89% respectively)
    - 2016 was the year when communities felt the most negative about their future community wellbeing.
- In 2024, expectations about future community wellbeing were largely driven by current levels of community wellbeing and place attachment.

Adapting and coping with changes from CSG development

- People's perceptions of how they thought their community was coping and adapting to CSG development improved considerably in 2024 compared to prior survey years.
    - In 2024, most participants in the Western Downs (73.3%) and the eastern Maranoa (84.1%) reported their region was 'adapting to the change' or 'changing into something different but better', with very few participants indicating they thought their community was resisting or not coping (5.5% in Western Downs and zero % in eastern Maranoa).
    - This compares to earlier baseline years when nearly half participants in Western Downs reported their community as either resisting, not coping, or only just coping in 2014 and a third of participants in eastern Maranoa reporting this in 2016.

Attitudes and perceptions of CSG development and the sector

- CSG attitudes and perceptions have become more positive
    - In both the Western Downs and eastern Maranoa, levels of overall acceptance of CSG development were at their highest in 2024. This was an improvement from 2018 and 2016. In 2016 (post-construction phase), attitudes and perceptions were at their most negative. This change is reflected in an increase in the percentage of people who 'approve' and 'embrace' CSG developments and a decrease in the percentage who 'reject' or 'tolerate' it.
    - In 2024, a range of attitudes persisted within the regions. In the Western Downs, 8% of residents indicated they 'reject' CSG development in their region (down from a high of 13.4% in 2016), 31% indicated they 'tolerate it', 33% 'accept it', 12% 'approve of it', and 16% 'embrace it'. The eastern Maranoa demonstrated a similar pattern of attitudes in 2024: 5% 'reject it', 26% 'tolerate it', 33% 'accept it', 23% 'approve of it', and 12% 'embrace it'.
    - Differences in attitudes and perceptions were found among the subregions, and those living out-of-town were less supportive than those who lived in-town.

    - Concerns about negative impacts have decreased and perceptions of benefits have increased.
    - Modelling suggests people have become more supportive of CSG developments over time due to lower perceived impacts, higher perceived benefits, and more favourable evaluations of trust in CSG companies, governance, procedural fairness and distributional fairness.
- Farmers with CSG activity also perceived notable improvements in social licence factors between 2018 and 2024, including increased perceived benefits, decreased perceived impacts, and improved satisfaction with dealings with CSG companies. However, farmers with and without CSG activity still had, on average, unfavourable perceptions of some social licence factors underpinning their acceptance, such as, perceptions of procedural fairness, relationship quality and trust with CSG companies, and the overall governance of the industry.
- Subregions of the Western Downs have changed their views at different rates over time.
    - The shifts over time in attitudes towards CSG development have not all happened in the same direction in all subregions of the Western Downs.
    - While most Western Downs regions saw peak levels of support in 2024, Dalby has seen a decrease in CSG support since 2018.
    - People in Dalby reported higher levels of perceived impacts compared to other Western Downs subregions.
- Support for CSG development has continued to be higher in the eastern Maranoa.
- Less support for CSG from those living out-of-town has continued over the decade.

Knowledge, interest, and information needs about CSG development

- Most people reported moderate levels of knowledge about CSG development.
    - In 2024, less than 20% of people in both regions reported having 'a lot' of knowledge about CSG developments
- The desire for more information decreased from 2018 to 2024.
- Higher knowledge confidence aligns with stronger views about CSG development, whether it be a very negative or very positive attitude towards CSG.
- Reported interest in the CSG industry has also decreased over time, similar to information needs.
    - In the Western Downs, interest in the CSG industry was highest in 2014 and lowest in 2024.
    - In 2024, only 16.5% of people in the Western Downs reported being 'very interested' and 14.7% reporting being 'not at all interested'.
    - Similarly, over 40% of people in both the Western Downs and eastern Maranoa now say they 'never' or 'seldom' think or talk about CSG in their region.

- Relying on friends and family remains the most used resource for information about CSG activity for many people.
    - Information from more official sources like research organisations, government and industry was less commonly relied upon compared to friends and family.
    - Information from anti-CSG groups was least relied upon.
    - Beyond word of mouth, social media seems to play an important role for many residents, with close to 50% of people in both the Western Downs and the eastern Maranoa using social media at least sometimes for CSG related information.

Demographic differences

- People with previous experience working in gas or mining industries, or with family or friends in these industries, hold more positive views about CSG development.
    - People with previous experience are less concerned about impacts and hold more positive perceptions about benefits.
- Men hold more positive views than women about the CSG industry. For example, women hold higher levels of concern about negative impacts.

Attitudes towards renewable energy infrastructure and relevant learnings for the renewable energy sector

- In these regions in 2024, attitudes towards renewable energy infrastructure like solar and wind farms are more polarised compared to CSG activity.
    - The levels of rejection are also higher than any of the reported levels of CSG rejection over the last 10 years in Western Downs and eastern Maranoa.
    - Rejection rates for renewable energy infrastructure are higher in the eastern Maranoa than in the Western Downs, especially for wind farms.
- Participants described two main lessons from CSG relevant to the renewable energy sector
    - Lesson 1: Communities and landowners expect industries to have honest and transparent communications and relations with them.
    - Lesson 2: Minimise impacts and deliver benefits to the environment, economy, and community.

Key messages and implications

Community wellbeing

Community wellbeing remained robust throughout all four phases of the industry cycle. Over the decade, place attachment remained high, indicating a strong sense of belonging and pride in local towns and surrounding areas. Social factors such as community spirit, cohesion, and local trust, along with services and facilities, consistently emerged as key drivers of community wellbeing. Economic opportunities only featured prominently in 2016, during the post-construction phase, when many small businesses experienced an economic slowdown.

To enhance community wellbeing, it is essential to target resources towards activities that support and promote social wellbeing, in addition to maintaining infrastructure and services. Perceptions of economic opportunities are important to target when business and employment prospects are seen as unsatisfactory.

Expected future community wellbeing

In 2024, expectations of future community wellbeing showed significant improvement compared to previous years. The majority of people in Western Downs (81%) and eastern Maranoa (89%) believed that their community wellbeing would either remain the same or improve. This marked a considerable contrast to 2016, a year when communities felt the most negative about their future wellbeing. Compared to 2016, 2024 saw a notable increase in the percentage of people with a positive outlook on their future wellbeing and a significant decrease in those who felt their future wellbeing would decline.

The current levels of community wellbeing and place attachment are now the primary factors influencing future community wellbeing. During the earlier industry cycles of construction and post-construction (2014 and 2016), future expectations were also shaped by how well the community was perceived to be adapting to coal seam gas (CSG) development. By 2024, this was no longer a factor influencing future community wellbeing expectations.

Adapting to change

In 2024, people's perceptions of how their community was coping and adapting to coal seam gas (CSG) development improved significantly compared to previous survey years. Most participants in the Western Downs (73.3%) and the eastern Maranoa (84.1%) felt their region was either 'adapting to the change' or 'changing into something different but better'. Very few participants believed their community was resisting or not coping, with only 5.5% in Western Downs and none in eastern Maranoa expressing these concerns.

This represents a notable improvement from earlier years. In 2014, nearly half of participants in Western Downs reported their community as either resisting, not coping, or only just coping. Similarly, in 2016, a third of participants in eastern Maranoa indicated their community was resisting, not coping, or only just coping.

An interesting finding is that perceptions of how the community is adapting and coping with CSG development only seem to influence future outlooks when these perceptions are low. When people feel their community is coping and adapting well to changes like CSG development, their expectations

for the future are driven by current wellbeing and place attachment. Conversely, when perceptions of adapting are low, these views shape future expectations, leading to more negative outlooks.

Attitudes and perceptions of CSG development

Attitudes towards coal seam gas (CSG) development have become more positive. In both the Western Downs and eastern Maranoa, overall acceptance of CSG development reached its highest levels in 2024. This is reflected in increased percentages of people who 'approve of' or 'embrace' CSG developments and decreases in those who 'reject' or 'tolerate' them. Concerns about negative impacts have also decreased, while perceptions of benefits have increased.

Modelling suggests that, over time, residents have become more supportive of CSG developments due to fewer perceived impacts, more perceived benefits, and more favourable evaluations of trust in CSG companies, governance, procedural fairness, and distributional fairness. Similarly for farmers involved in CSG activity, there were significant improvements in perceived benefits, decreased perceived impacts, and greater satisfaction with interactions with CSG companies.

Despite improvements in perceptions and attitudes toward CSG development, farmers—both those with and without CSG activity—still generally held unfavourable views on certain social licence factors essential for improving acceptance. These factors were procedural fairness, the quality of relationships and trust with CSG companies, and the overall governance of the industry on average.

Addressing farmer's concerns is still an important focus for CSG companies. Areas identified for continuous improvement by these farmers were improving honesty, communication, fairness, respect, maintenance and responsiveness to issues, essential to further build trust and foster positive relationships.

Subregions of the Western Downs have experienced changes in their views on CSG development at different rates over time. While most regions saw peak levels of support in 2024, Dalby has seen a decrease in support since 2018. This decline is potentially due to increased concerns about new developments clashing with other land uses, such as irrigated farming. People in Dalby reported greater concerns about possible hydraulic fracturing, land subsidence, CSG well integrity, and the extension of CSG into more farming areas.

Support for CSG development has remained lower among those living out-of-town compared to in-town residents. This difference may be due to the greater exposure to the benefits of CSG developments in-town, such as local business opportunities and improved services and facilities. Additionally, farmers living out-of-town may still have concerns about the impacts of CSG development on groundwater resources, despite findings showing these concerns have reduced over time.

Support for CSG development has remained higher in the eastern Maranoa. One reason for this difference is the less intensive nature of farming in the eastern Maranoa compared to the Western Downs. Additionally, the gas industry has a long history in Roma, with natural gas first discovered there in 1900 and Australia's first gas pipeline connecting the Roma gasfields to Brisbane completed in 1969.

People with previous experience working in gas or mining industries, or those with family or friends in these sectors, tend to have more positive views about CSG development compared to those without such connections. They are generally less concerned about the impacts and have more positive perceptions of the benefits. Additionally, men hold more positive views about the CSG industry, while women tend to have higher levels of concern about potential negative impacts.

Stronger views about CSG development tend to align with knowledge confidence; those with very negative or very positive attitudes tend to have higher levels of knowledge confidence. This indicates that people with strong views are unlikely to change their opinions, while those with moderate views and lower knowledge confidence are potentially more likely to shift their view over time.

Knowledge, interest and information sources

Relying on friends and family remains the most common source of information about CSG activity for many people in the region. Information from official sources like research organisations, government, and industry is less commonly relied upon compared to friends and family. Most people never use anti-CSG groups for information. Beyond word of mouth, social media plays an important role for many residents, with close to 50% of people in both the Western Downs and eastern Maranoa using social media at least sometimes for CSG-related information. Research organisations, governments, and industry may benefit from having a more active presence on social media to disseminate relevant information about CSG developments.

In 2024, most people reported moderate levels of knowledge about CSG development. The desire for more information has decreased from 2018 to 2024, suggesting that many people are now more comfortable with their understanding of CSG and less interested in learning more compared to earlier stages of development.

Interest in the CSG industry has also decreased over time, mirroring the decline in information needs. In the Western Downs, interest peaked in 2014 and reached its lowest point in 2024, with only 16.5% of people reporting being 'very interested' and 14.7% 'not at all interested.' The findings also highlight that for some people living in these regions, CSG activity has become 'business as usual' and no longer elicits the same degree of interest it once did when it was a relatively new industry. Over 40% of people in both the Western Downs and eastern Maranoa say they 'never' or 'seldom' think or talk about CSG in their region.

Attitudes towards renewables

As of 2024, rejection rates for both solar and wind farms in the Western Downs and eastern Maranoa are notably high, surpassing the rejection levels seen in the Australian population in 2023 (McCrea et al., 2024). These rejection rates are also higher than any reported levels of CSG rejection over the past decade in these regions. It's important to note that surveys in these areas began after the first CSG activity had started, making it difficult to determine if rejection rates would have been higher before the industry began, as seen in Narrabri, NSW (McCrea & Walton, 2022).

Lessons from CSG development for the renewable energy sector

The results revealed two significant lessons that participants identified as important for the renewable energy sector.

The first lesson emphasizes the importance of honest and transparent communication between industries and communities, including landowners. It is essential to maintain respectful and fair negotiations. An opaque regulatory environment heightens the necessity for clear communication and engagement. Additionally, the varying levels of support within communities for energy industries underscore the need for tailored communication and strategies to address diverse needs and expectations.

The second lesson focuses on minimizing impacts while delivering benefits to the environment, economy, and community. This includes providing tangible benefits to the local area, such as employment opportunities, business growth, improved infrastructure, and support for community initiatives. It is also crucial to plan for and mitigate any negative impacts and unintended consequences. Maintaining high environmental and safety standards is paramount to achieving these goals.

Further information

To find more information and to explore the survey data more interactively, see the project website at https://gisera.csiro.au/research/social-and-economic-impacts-and-opportunities/community-wellbeing-and-attitudes-to-csg-development-2014-to-2024/ and the online interactive tool at https://shiny.csiro.au/csg_survey

1 Introduction

Background to the research

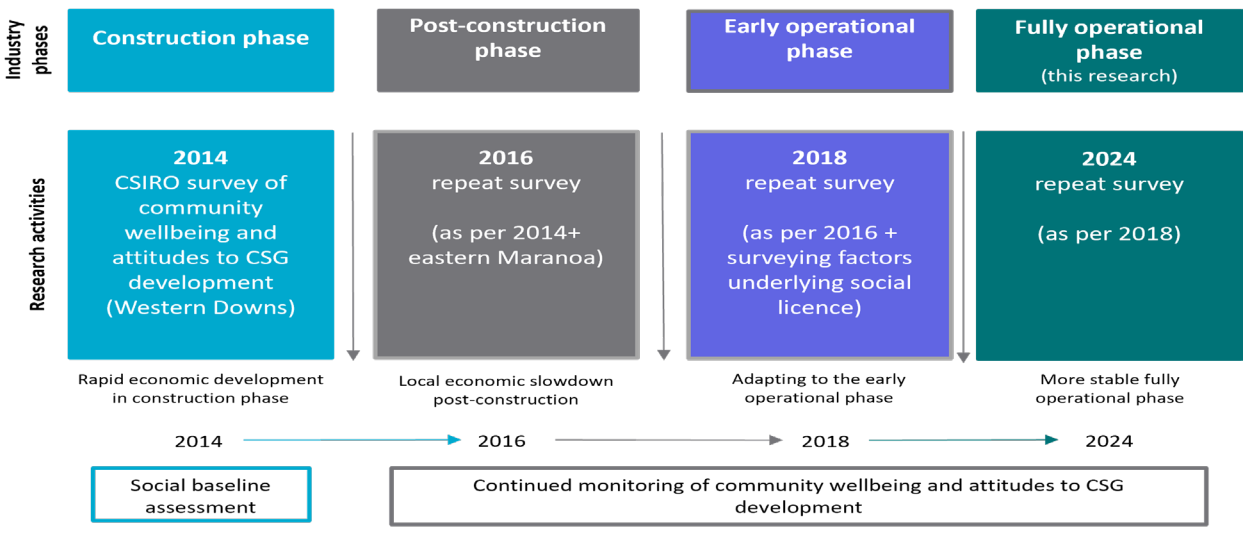
In 2024, at the time of this research, much of the Coal Seam Gas (CSG) industry in Queensland's Surat Basin was in full operational phase, with new CSG developments continuing to open up over the Western Downs and Maranoa regions. Over the past decade, CSIRO has conducted three community surveys in the region to monitor community wellbeing and attitudes, each corresponding with a different industry phase.

- **2014:** The industry was in the construction phase, building essential infrastructure like pipelines, power lines, compressor stations, water treatment facilities, and gas processing facilities. This phase required a large non-resident labour force and significantly boosted the local economy in the Western Downs and Maranoa regions.
- **2016:** The industry transitioned to a post-construction phase with most major infrastructure completed. The reduced need for a large labour force led to an economic slowdown in the region.
- **2018:** The industry entered a stable early operating phase, with over 8,055 coal seam gas wells drilled, and new gas fields opening up.

This research project involved a fourth survey in 2024 to measure community wellbeing and attitudes towards CSG development, as shown in Figure 1. With approximately 11,323 CSG wells drilled, and new developments opening near Dalby where the CSG industry intersects with high value cropping land, the project compares the 2024 results with previous years to identify changes and trends in community perceptions and wellbeing across different industry phases.

The report highlights trends in community concerns and benefits perceived from CSG development. This information also enhances our understanding of community priorities and provides valuable insights for government and industry planning, supporting adaptive governance and decision-making in the face of large-scale infrastructure development.

Figure 1 Four surveys conducted over the last decade



Context

The Western Downs region

The Western Downs region, spanning nearly 40,000 square kilometres, is situated in southern Queensland, about 300 kilometres west of Brisbane. It includes four main town centres, with Dalby being the largest followed by Chinchilla, Miles, and Tara. In 2023, the estimated resident population was almost 35,000, which was a 3.5% increase from the 2014 estimate of almost 33,800 (ABS, 2024). The population has been growing since the 1990s and is expected to continue this trend.

The region's economy is primarily driven by agriculture, forestry, and mining. Agricultural activities include grain and cotton farming, as well as livestock production especially beef cattle. The mining sector features gas exploration and production, coal mines, and power stations, notably the Kogan Creek mine and power station, which opened in 2006. The power station is located adjacent to the new Kogan Clean Energy Hub, which is also home to the Chinchilla Battery – a 100 MW grid-scale storage battery that began operating in July 2024 and a renewable hydrogen demonstration plant, which is under construction (CS Energy, 2024).

The eastern part of the Maranoa region

The Maranoa region, located west of and adjacent to the Western Downs region, is approximately 480 kilometres west of Brisbane. This local government area spans nearly 60,000 square kilometres. The primary land use is agricultural, focusing on cattle and sheep grazing, and cereal crop production, with some timber production. However, agriculture in this region is less intensive than the grain and cotton farming of the Western Downs region.

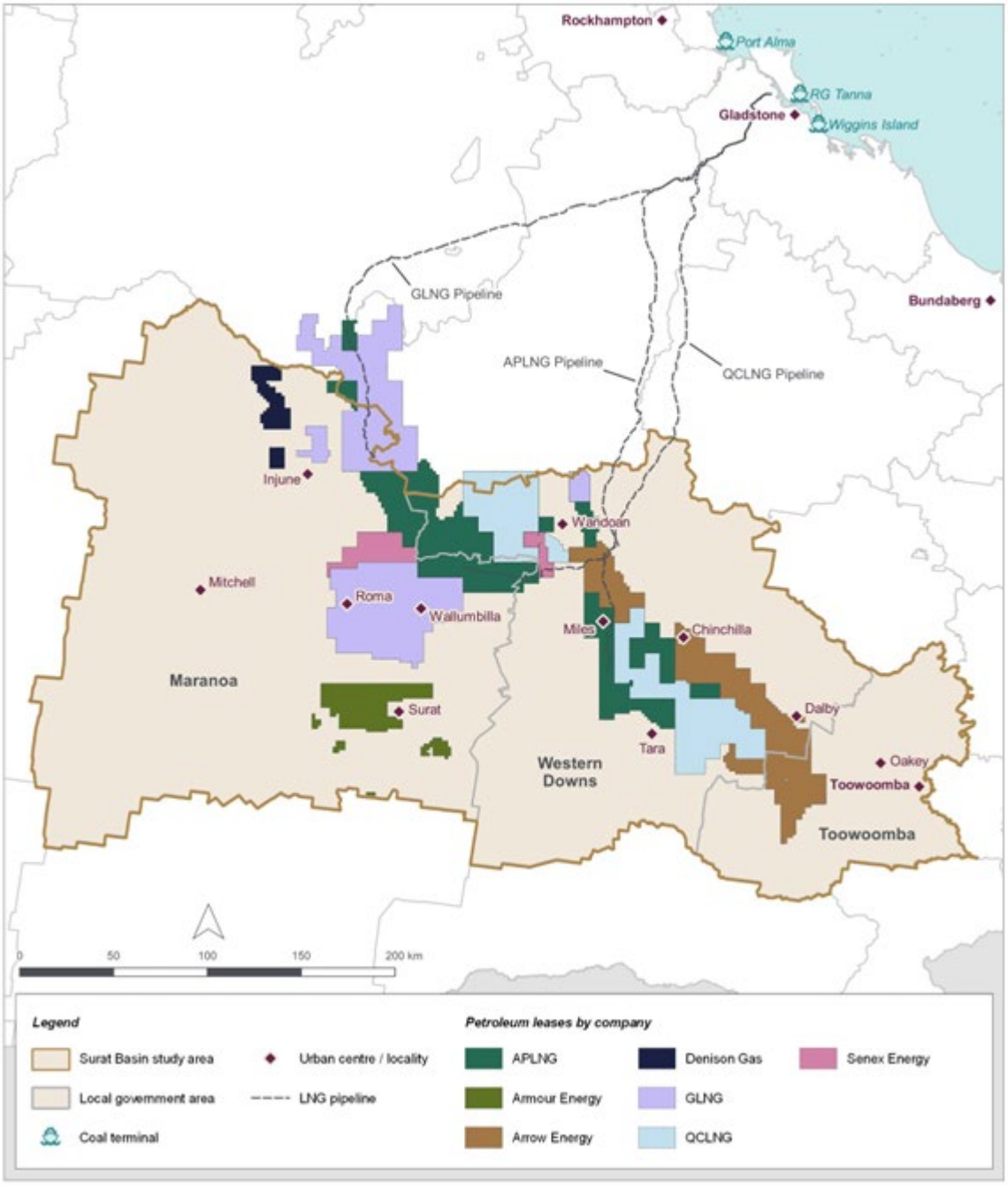
Coal seam gas (CSG) activity is present in the eastern half of the Maranoa region, which serves as a comparison area for the Western Downs in this study. The estimated resident population of the Maranoa region was approximately 13,250 in 2023, 4.3% lower than 2014 estimates of approximately 13,850 (ABS,2024), making it more sparsely populated than the Western Downs. The main town is Roma, accompanied by smaller townships such as Amby, Injune, Jackson, Mitchell, Mungallala, Surat, Wallumbilla, and Yuleba. This area has had CSG wells since the mid-1990s, longer than the Western Downs. It also has a long-standing history of natural gas extraction with gas first discovered in Roma in 1900 and Australia’s first gas pipeline connecting the Roma gasfields to Brisbane completed in 1969 (Gasfields Commission Queensland, 2018).

Figure 2 and Figure 3 show maps of the regions, the major urban centres, gas pipeline infrastructure, and the CSG tenements.

Figure 2 Map of the Surat Basin and local government areas

Source: The Office of Economic and Statistical Research (OESR) of Queensland (2012)

Figure 3 Map of the Surat Basin, local government areas, and petroleum leases



Source: Queensland Government Statistician's Office (2024) Surat Basin population report, 2023

Industry profile in the region

Drawing from the Office of Ground Water Assessment's annual review, which profiled petroleum and gas activity as of October 2023, the production area (where production is either occurring or proposed) was approximately 14,000 km^2 and the number of projected production wells approximately 20,000 by around 2035-2040 (OGIA, 2024). As depicted in Figure 4, the OGIA modelling shows approximately 11,000 wells were likely to be operating in 2024 in the Surat and Bowen basins at the time of the survey, with most activity undertaken in the Surat, which is the location of our survey regions.

Figure 4 Existing and projected CSG wells in the Surat Cumulative Management Area (OGIA, 2024)

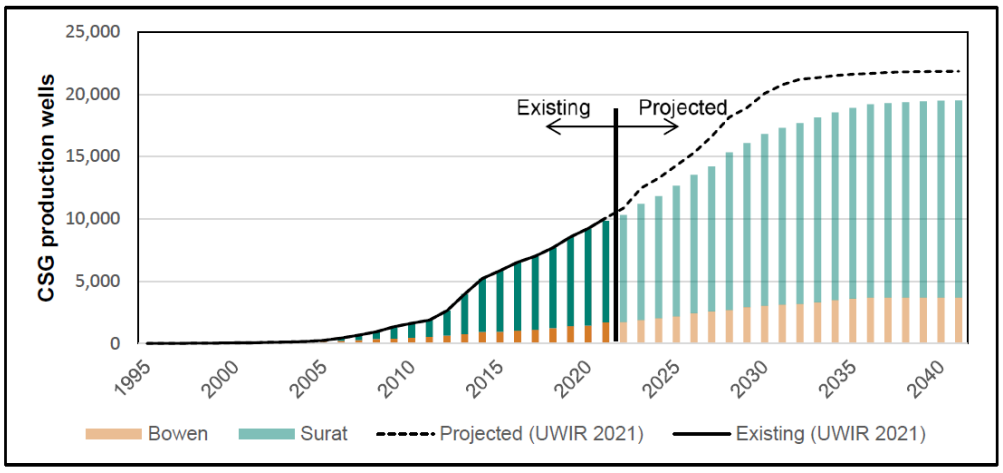
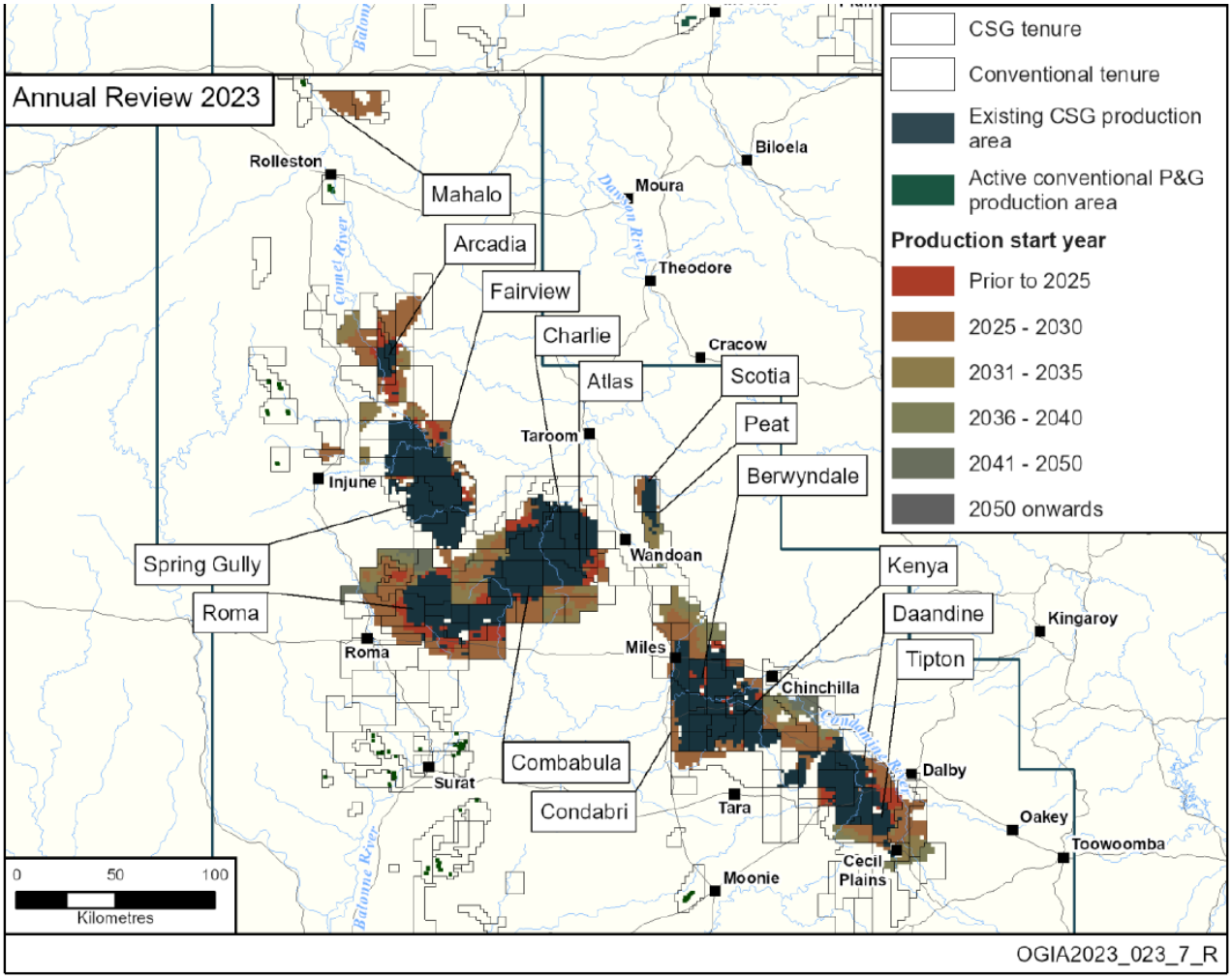


Figure 5 shows the location of wells in relation to the sub-regions studied in our survey – Dalby and surrounds, Chinchilla and surrounds, Miles-Wandoan and surrounds, Tara and surrounds, and the eastern Maranoa (Roma and surrounds). It also shows how the number of wells increase, and the developments extend over time in each of the tenements.

Figure 5 Petroleum and Gas development profiles in the Surat Basin as at October 2023 (OGIA, 2024)



Concepts used in this report

Community wellbeing

A measure of community wellbeing is essentially a snapshot of the perceived quality of life within a community, reflecting how residents view their area as a 'good place to live' (McCrea, Walton, & Leonard, 2014). Since the concept of community wellbeing varies among individuals, a comprehensive measure that includes various dimensions is necessary to understand the different factors influencing quality of life within the community.

Based on a review of international research and studies conducted in Queensland's Western Downs region (Christakopoulou et al., 2001; Forjaz et al., 2011; Morton, 2013; Sirgy et al., 2010), we examined community wellbeing across 15 dimensions. Figure 6 shows these dimensions categorized into six domains: social, environmental, political, physical infrastructure, economic, and health (McCrea et al., 2014). Using in-depth telephone interviews and survey questions to collect people's judgments and perceptions each of the 15 dimensions were measured and these are discussed further in this report. Table 1 provides a brief description of each dimension.

Figure 6 Dimensions of community wellbeing grouped into six domains

Table 1 Description of the fifteen dimensions of community wellbeing within the six domains

Dimension	Domain	Brief description
1. Personal safety	Social	Safety at home alone at night, walking outside alone at night, leaving the car by the roadside at night
2. Community spirit	Social	Friendliness, supporting each other, working together
3. Community cohesion	Social	Inclusion, welcoming of newcomers and people with differences
4. Local trust	Social	Trust within the community and with local leaders
5. Community participation	Social	Volunteering, supporting, and attending community-based activities
6. Social interaction	Social	Visiting, talking, and going out with others in the community
7. Environmental quality	Environment	Quality of the environment in which people live - levels of dust and noise, overall quality of the general environment
8. Environmental management	Environment	Managing the environment for the long term: underground water, nature reserves; sustainability of local farming land
9. Local decision making and citizen voice	Political	Citizens having a say and being heard in local decision making, and trust in local government
10. Services and facilities	Physical infrastructure	Schools, childcare, sports and leisure facilities, cultural facilities, shopping for food and everyday items, other shopping, medical and health services, and community support services
11. Town appearance	Physical infrastructure	General physical appearance of the town, cleanliness, parks, gardens
12. Roads	Physical infrastructure	Condition, safety, and amount of traffic on the roads
13. Income sufficiency	Economic	Household income sufficient for household expenses, and lifestyles; impact of rent or mortgage repayments on household finances
14. Employment and business opportunities	Economic	Job opportunities in the community, local businesses doing well
15. Health	Health	Diet and eating habits, exercise habits, physical and mental health

Note: The description reflects the types of questions (items) used to measure each dimension; typically, 3-5 items or questions per dimension.

Expected future community wellbeing

The survey not only assessed current perceptions of community wellbeing, but also, explored expectations for community wellbeing three years into the future. Future wellbeing is linked to current wellbeing levels and the community's perception of its ability to adapt and cope with change. Research indicates that communities confident in their ability to manage change tend to have higher expectations for future wellbeing, considering their current state (McCrea et al., 2016).

Attitudes and perceptions of CSG development

Community acceptance of an industry's activities within a community is important for the establishment and ongoing operation of a new industry. This acceptance is commonly referred to as a 'social Licence to operate' (SLO), whereby the industry meets the ongoing expectations of the community with regards to its actions and thus gains ongoing acceptance (Curran, 2017; Gunningham et al., 2004; Moffat & Zhang, 2014). Research in Queensland's CSG regions has shown that these expectations include aspects of community wellbeing such as affordable housing, good roads, job opportunities, sustainable businesses, management of groundwater, maintenance of community spirit and trust, and respectful engagement with the community (Williams & Walton, 2014; Walton et al., 2014).

Models of SLO for extractive and unconventional gas industries highlight factors like community concerns about possible negative impacts, the distribution of costs and benefits, trust, and industry knowledge (Moffat & Zhang 2014; Walton & McCrea, 2020). These factors, as listed in Figure 7, drive trust and acceptance (or lack of). When these factors are high, communities tend to view CSG development more positively. Conversely, low levels of these factors result in more negative perceptions. However, high concern over potential negative impacts from CSG development leads to negative perceptions of the industry and its development. These factors are critically important to communities and measuring them provides valuable empirical data to the industry and key stakeholders. This data can guide improvements in the industry, inform government initiatives, and enhance policy and standards in the CSG sector.

Figure 7 List of factors that underlie trust and acceptance of onshore conventional gas development

Perceived impacts	- Concerns about immediate issues, possible future issues, risk manageability, risk severity
Perceived benefits	- Local benefits, regional and societal benefits
Distributional fairness	- Perceptions of how fairly impacts and benefits are shared
Trust in the onshore gas industry	- Trust and confidence in industry competence, and doing the right thing by communities
Relationship quality	- Perceptions of the quality of the relationship between industry and community
Procedural fairness	- Perceptions of how fairly the industry will treat the community
Governance	- Perceptions of formal governance (regulations and compliance), government engaging with communities, working collaboratively with communities, trust in state departments
Energy transition narrative	- The role of gas in reducing carbon emissions and transitioning to renewable energies
Knowledge	- Awareness and understanding of the onshore conventional gas industry

2 Methods

Survey overview

The survey was conducted from late-May to mid-July 2024. It used computer assisted telephone interviewing (CATI) to survey 401 residents of the Western Downs region and 200 residents of the eastern Maranoa region. A third-party research company administered the survey using a database of landline and mobile telephone numbers to randomly select residents based on pre-determined selection criteria and demographic quotas. The quotas were used to ensure sufficient sample in each subregion, inclusion of those living in and out-of-town, and reasonable representativeness in gender and age.

Inclusion criteria and quotas

- Participants needed to be residents of the shire (not FIFO or DIDO workers)
- Aged 18 years or older
- Quota sampling to obtain a representative sample based on age, gender, and location characteristics, weighted according to the Australian Bureau of Statistics 2021 Population Census (ABS, 2021).

The survey took approximately 30 minutes to complete on average. All participants were offered a $20 gift voucher for their participation as a thank you for their time to complete the survey. Eighty-three percent of participants accepted the gift voucher offering. Participants had a spread of interest levels in the CSG discussion with results later showing interest ranged from no interest to very interested with most participants indicating mid-level interest in CSG discussions. All project procedures were reviewed and approved by CSIRO's Ethics Committee (No. 175/23).

Survey sample and representativeness

While the sample was reasonably representative, the sample data was weighted to better reflect the 2021 Population Census characteristics on age, gender, subregions and whether living in- or out-of-town. Table 2 shows the weighted sample characteristics. Weighted survey data was then used for all analyses in this report. See Appendix A.2 for comparisons between the weighted sample and Australian Bureau of Statistics population census data.

Table 2 Sample characteristics for Western Downs and eastern Maranoa regions (weighted)

	Western Downs	Eastern Maranoa
Age		
Less than 35 years	28.9%	28.9%
35 to 54 years	33.0%	34.6%
55+ years	38.1%	36.5%
Gender		
Male	50.9%	50.1%
Female	49.1%	49.9%
Working		
Not working	33.4%	20.2%
Working	66.6%	79.8%
Home tenure		
Own	74.5%	79.1%
Rent	25.5%	20.9%
Household income		
Less than $40,000	22.6%	11.4%
Between $40,000 and $80,000	21.9%	23.7%
Between $80,000 and $120,000	19.1%	23.7%
More than $120,000	36.4%	41.2%
Years living in region		
5 years or less	9.6%	10.3%
6 – 10 years	10.8%	9.3%
Over 10 years	79.6%	80.4%
Subregion		
Dalby	45.0%	
Chinchilla	29.6%	
Miles-Wandoan	13.0%	
Tara	12.4%	
Living out-of-town		
In-town	63.4%	66.2%
Out-of-town	34.5%	33.8%
Own a farm of 40 hectares or more (i.e., 100+ acres)		
No	71.0%	72.3%
Yes	29.0%	27.7%
Of Farmers - negotiations, exploration, or production of CSG have occurred on farm		
No	50.0%	51.2%
Yes	50.0%	48.8%

Note: weighted by age, gender, subregions and whether living in- or out-of-town

Survey measures

Survey topics

The 2024 survey comprised seven main topics and approximately 180 items (questions). A brief outline of the items used to measure each topic area is summarised in Table 3. Descriptions of individual survey measures, scales and their reliabilities are detailed in Appendix A.3, along with how items were developed. The same survey questions were similarly worded as in the previous surveys with exact wording for all items shown in Appendix A.7 and A.8.

Table 3 Summary of survey topics

SURVEY TOPICS		BRIEF DECRIPTION
1. Community wellbeing	73 items	*Overall wellbeing*, five items rating the community as a suitable place to live for different segments of the population (children / teenagers / seniors), and assessing the community overall as a place to live (that offers a good quality of life / they are happy to be living in) F*ifteen dimension*s of wellbeing each with their own set of multiple items (68 items) • Personal safety, Individual health, Income sufficiency, Services and facilities, Town appearance, Roads, Environmental quality, Environmental management, Local decision making and citizen voice, Employment and business opportunities, Community spirit, Community cohesion, Local trust, Community participation, Social interaction
2. Community coping and adaptation	3 items	Perceptions of the community's coping and adapting to a proposed CSG development, plus an overall item of either resisting it, not coping, only just coping, adapting to the changes, or changing into something different but better
3. Expected future community wellbeing	4 items	Expected future community wellbeing in 3 years hence (as a place that offered a good quality of life / where they would be happy to be living). They were also asked to choose how wellbeing in their community might change in the future (decline / stay about the same / improve), together with an open-ended question about reasons for thinking so.
4. Attitudes and perceptions of CSG and the sector	63 items	• Perceived impacts (current and future) • Risks to water (manageability / severity) • Perceived benefits (local, regional, and societal) • Perceived fairness (procedural and distributional) • Trust in CSG companies • Quality of relationships and responsiveness of CSG companies • Governance – formal (compliance, regulations); informal (planning, collaboration); trust in CSG governing bodies • Energy transition narrative – role of CSG in the energy transition • Feelings towards coal seam gas, measuring positive emotions (pleased, optimistic) and negative emotions (angry, worried) • Attitudes towards CSG development – acceptance of CSG development in the region and overall attitude (reject it, tolerate it, OK with it, accept it, or reject it)
5. Knowledge, and information sources	14 items	Use of different types of information sources; self-rated knowledge about the industry; thinking about, talking about CSG in their region; and interest in the CSG discussion, ; need for more information; previous experience with CSG sector
6. Attitudes to renewable energy infrastructure	3 items	Overall attitude toward solar farms, wind farms, and transmission line developments in their region (reject it, tolerate it, OK with it, accept it, or reject it), open ended question to share learnings from CSG development relevant to the renewable energy industry.
7. Demographic questions	10 items	• age, gender, employment status, household income, home ownership, farm ownership, indigenous status, years living in region • location type (live in or out-of-town), subregion (Dalby, Chinchilla, Miles-Wandoan, Tara, and eastern Maranoa)

Response scales

As in the 2014, 2016, and 2018 surveys, the 2024 survey questions mainly used a response scale from 1 to 5 where 1 was the least and 5 was the most. Participants were either asked to indicate how much they agreed with a statement, or how satisfied they were with the issue in question. The agreement scales ranged from 1 = strongly disagree to 5 = strongly agree, and the satisfaction scales ranged from 1 = very dissatisfied to 5 = very satisfied.

The demographic questions required participants to choose the most accurate category.

Open-ended questions

There were four open-ended questions – 1) reasons for participants' expectations about community wellbeing in three years' time; 2) the main thing participants would like to know about CSG development in their region; and 3) for farmers with CSG activity on their property, what they would like to be improved in their dealings with CSG companies. A fourth open-ended question explored learnings from CSG development that could be useful when working with other industries in the region like the renewable energy industry.

Analyses

Statistical tests and reporting of results

Statistical tests for differences between means (p-values <.05) are reported in the appendices for survey measures and items by geography, location, and over time. For simplicity, these statistical tests have not been reported in the body text of this report, except on occasion where they are referred to as 'statistical' differences (indicating p<.05). Tests of model fit and coefficient significance for the social licence model are reported in Appendix A.4.

Many graphs in this report show sample averages, which are an estimate of the population mean. These graphs include error bars that reflect the 95% confidence intervals. The confidence interval provides upper and lower bounds for the expected population mean. That is, the sample mean plus or minus the margin of error (MoE). When looking at smaller subpopulations, or observations with higher variance, the confidence interval (and MoE) will increase to reflect the increased uncertainty around the estimate of the population mean.

Thematic analysis of open text responses

Four survey questions allowed participants to respond in their own words. To analyse this large volume of text faithfully and efficiently, we combined manual thematic analysis with computational text processing and summarising (e.g., Patterson and Pouliot 2024). Computer-aided text processing and summarising is increasingly accessible due to advances in artificial intelligence, natural language processing, and large language models (Otter, Medina and Kalita 2021). We used Microsoft Copilot 365, integrated into Microsoft Word, accessed through CSIRO's participation in an Australian Federal Government trial. This access ensured participant privacy by keeping responses within CSIRO's computing infrastructure, as per CSIRO's ethics and privacy requirements. Appendix A.4 details the steps undertaken in the thematic analysis.

FINDINGS

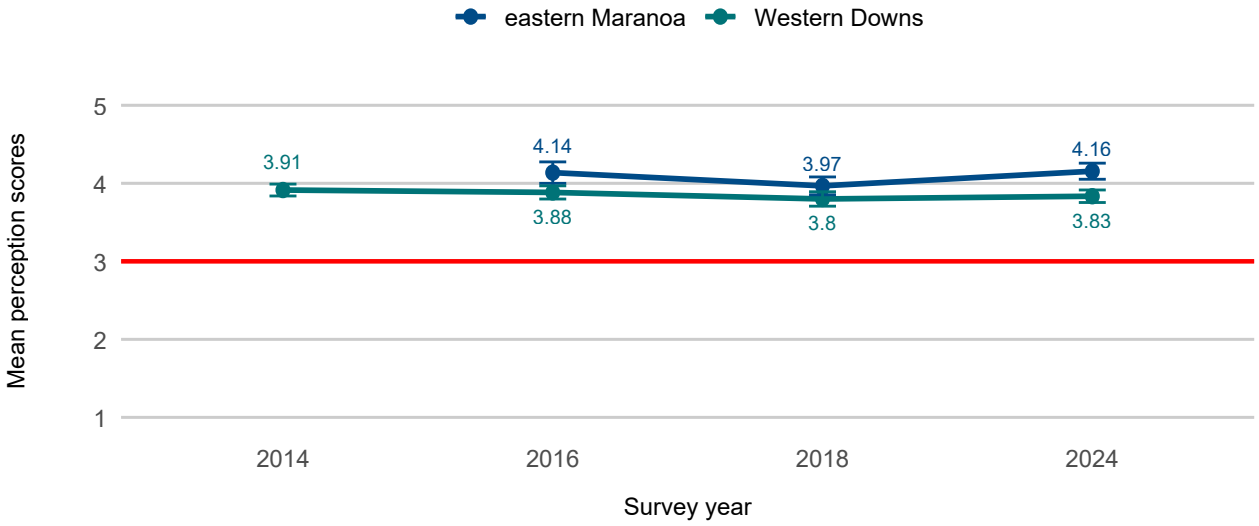
Source: Williams and Walton (2015)

3 Community Wellbeing

3.1 Overall community wellbeing: 2014-2024

In 2024, overall community wellbeing remained robust and virtually unchanged since earlier years in both the Western Downs and eastern Maranoa regions. Figure 8 shows the eastern Maranoa remains consistently higher than the Western Downs region, though the differences are small.

Figure 8 Overall community wellbeing: Western Downs and eastern Maranoa, 2014 - 2024

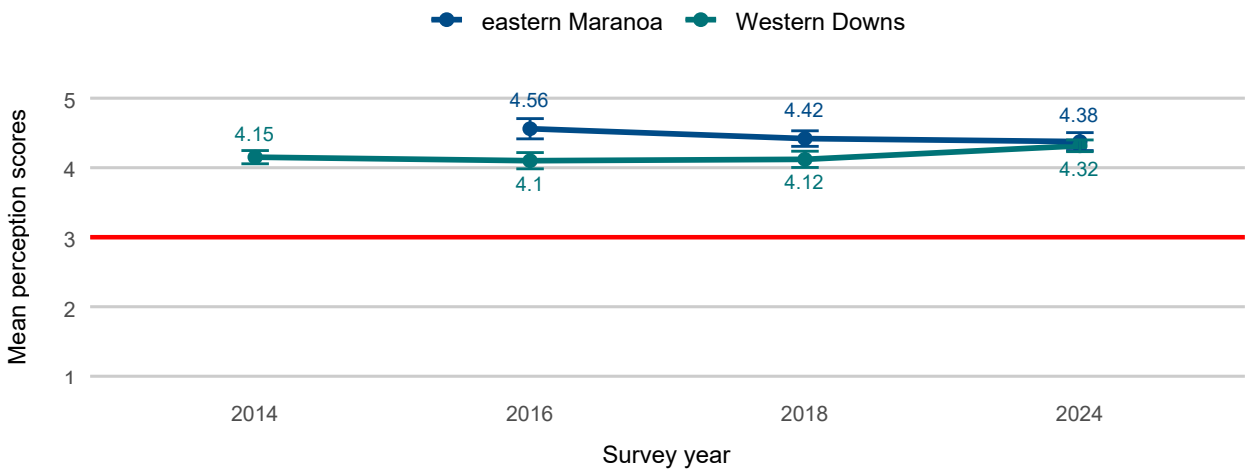


Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

Place attachment

Place attachment also remained high for both Western Downs and eastern Maranoa regions. Like previous years, in 2024, both regions indicated a strong sense of belonging and level of pride towards their local towns and surrounding areas, with little difference between regions, as shown in Figure 9.

Figure 9 Place attachment: Western Downs and eastern Maranoa, 2014 - 2024

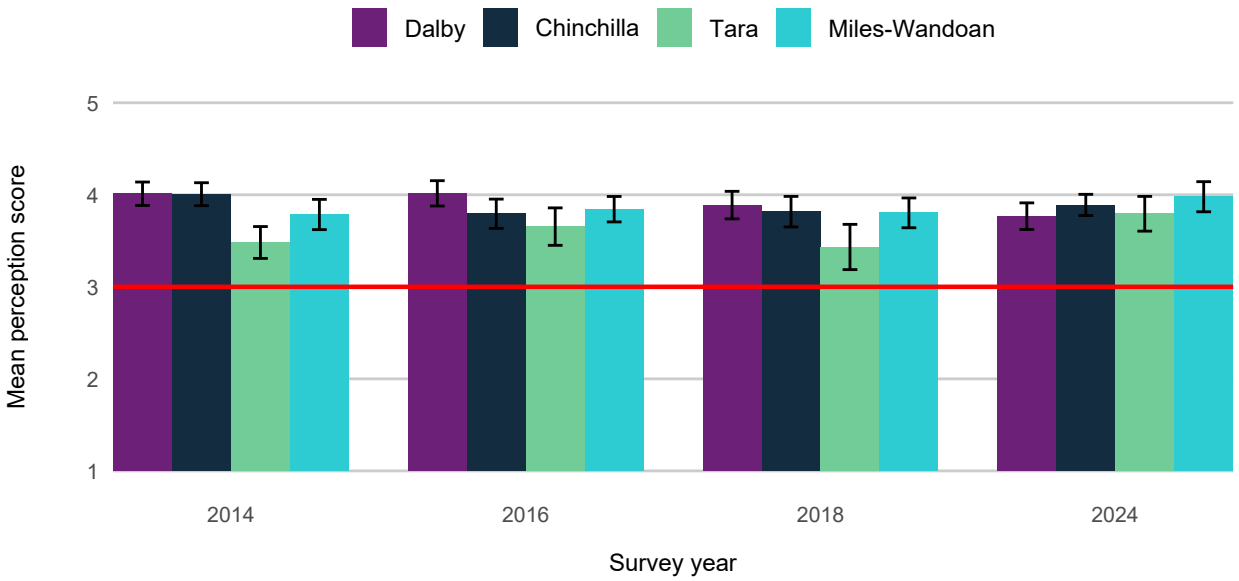


Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

Differences among subregions

Across the Western Downs in 2024, there were similar scores of overall community wellbeing in the subregions. For the first time in 2024, Tara residents rated their perceptions of overall community wellbeing similarly to residents in Dalby, Chinchilla, and Miles-Wandoan. Figure 10 shows the improvement in overall community wellbeing in Tara compared to a decade ago. Similarly, place attachment has also increased in Tara in 2024 (*M* = 3.79) compared to 2014 (*M* = 3.38), as shown in Figure 11.

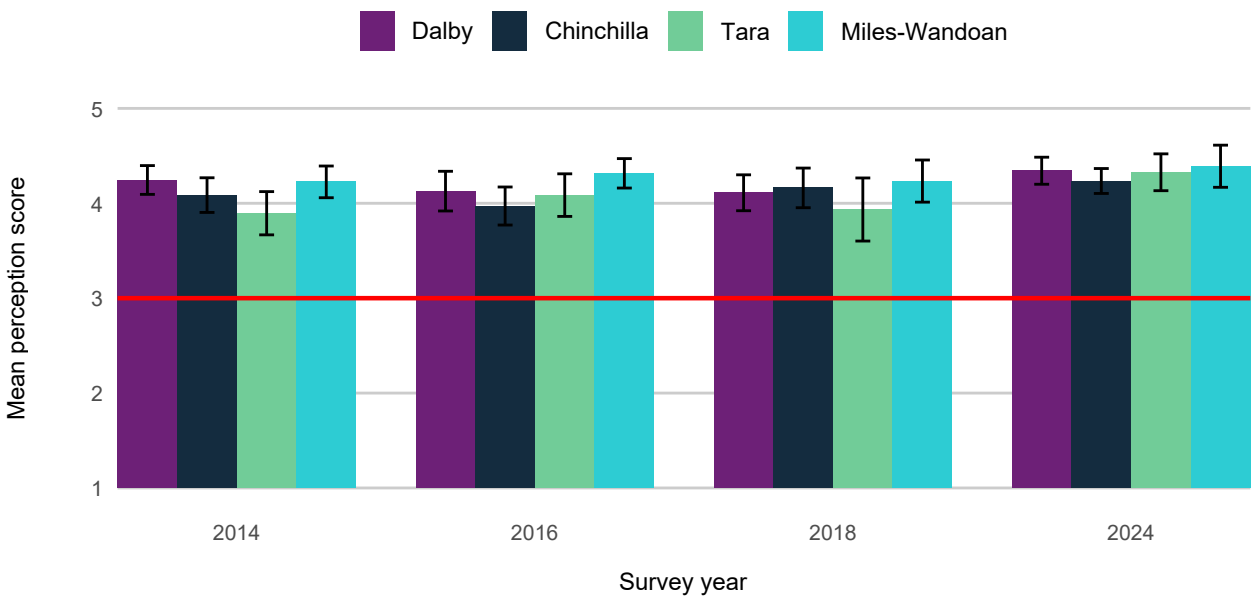
Figure 10 Overall community wellbeing: Western Downs subregions, 2014 – 2024



Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

Figure 10 also shows a drop in perceptions of overall community wellbeing in Dalby when comparing 2024 (*M* = 3.78) with 2014 (*M* = 4.01) and 2016 (*M* = 4.02), though overall community wellbeing is still perceived to be robust. Place attachment in Dalby has stayed consistently high over the decade, as shown in Figure 11.

Figure 11 Place attachment: Western Downs subregions, 2014 – 2024

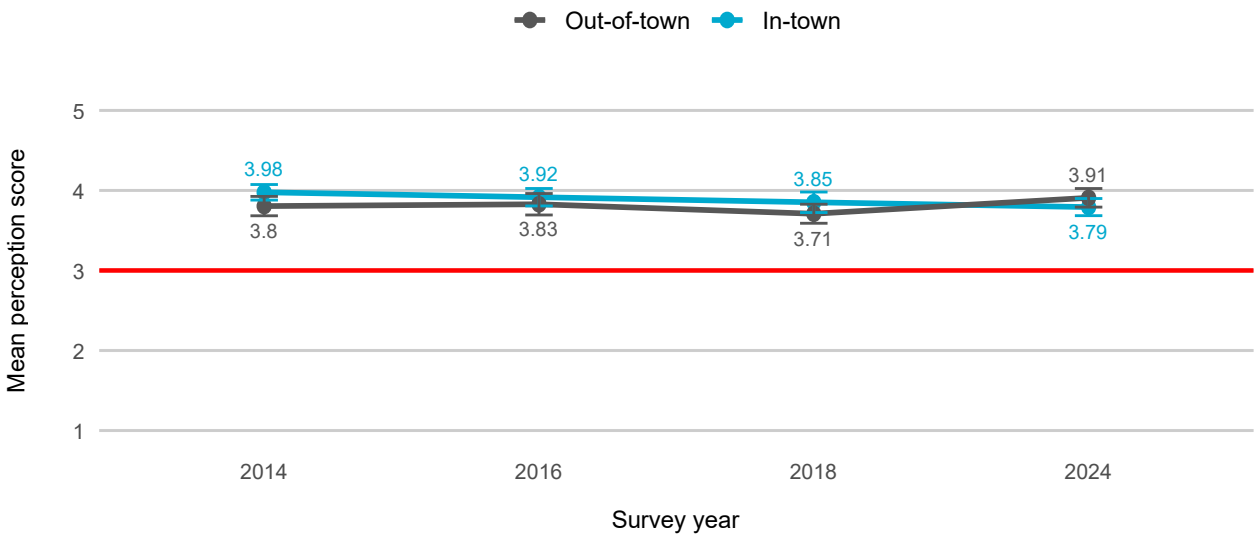


Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

Differences between Out-of-town and In-town residents

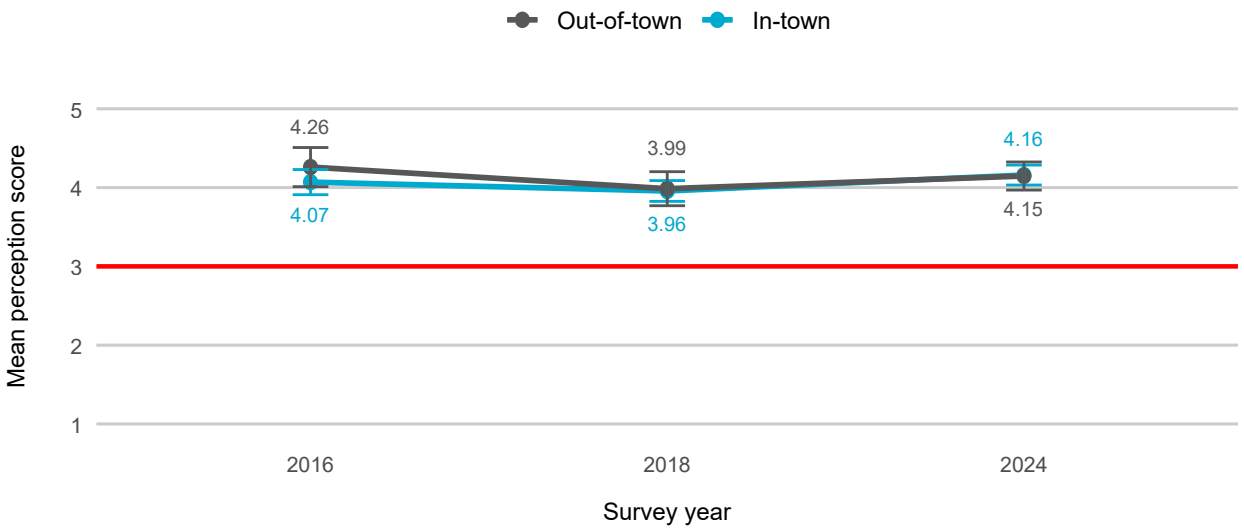
In the Western Downs in 2024, people who lived out-of-town perceived higher levels of overall community wellbeing than residents who lived in town. Figure 12 shows this is a reversal in trends from previous survey years where people out of town typically perceived lower levels of community wellbeing. Moreover, perceptions had remained similar for out-of-town residents over the decade with a dip in 2018, whereas perceptions had gradually lowered for in-town residents over the last decade. In the eastern Maranoa out-of-town residents held very similar views about their community wellbeing as in-town residents, and this has been consistent since 2018, as shown in Figure 13.

Figure 12 Overall community wellbeing: Out-of-town and In-town for Western Downs, 2014 – 2024



Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

Figure 13 Overall community wellbeing: Out-of-town and In-town for eastern Maranoa, 2016 – 2024



Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

3.2 Community wellbeing dimensions

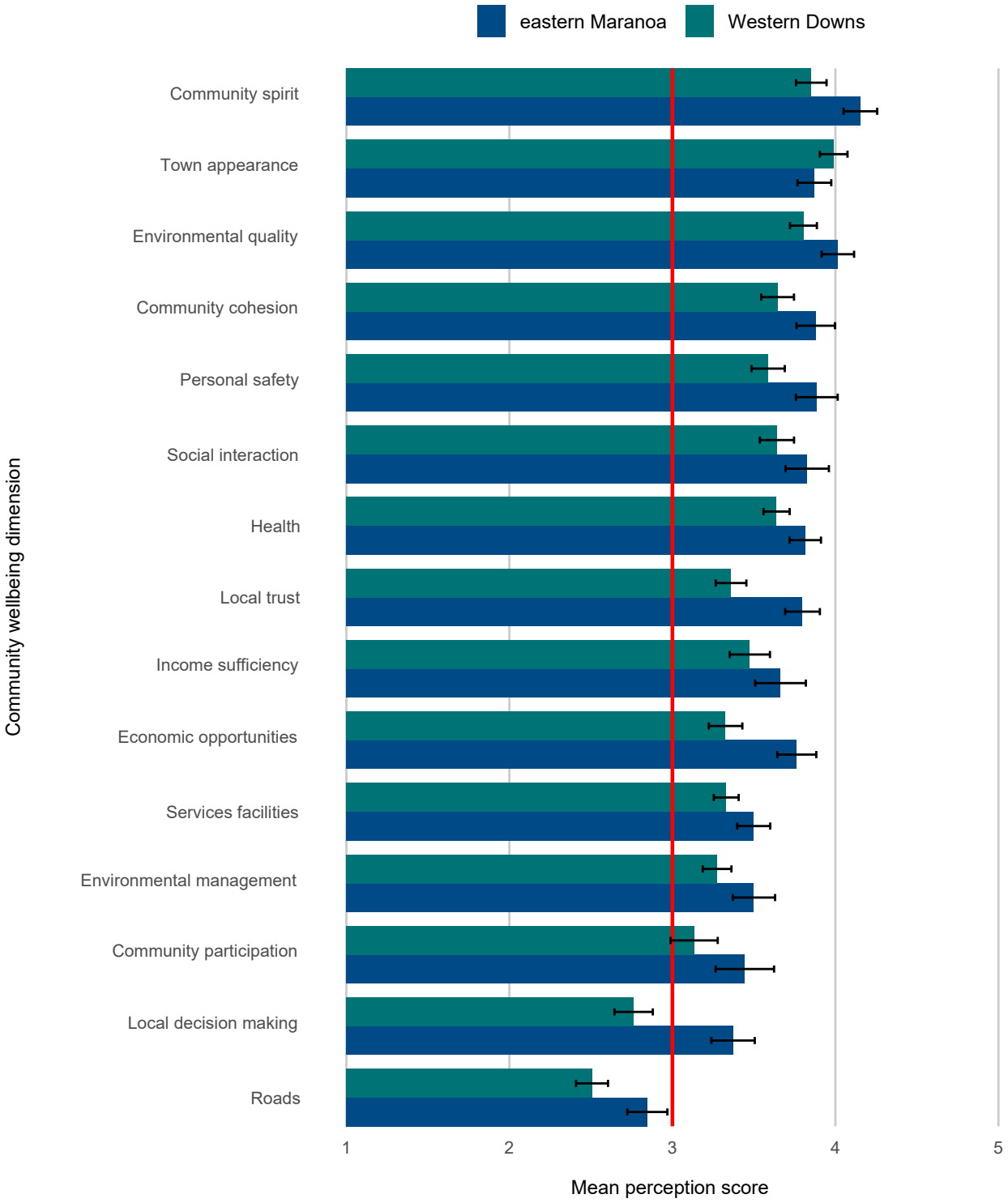
The survey measured fifteen different dimensions of community wellbeing and analysed differences among the regions and subregions and how these had changed over time. In 2024, perceptions of community spirit, town appearance, environmental quality and community cohesion were rated most highly. In contrast, the condition and safety of local roads and perceptions of local decision making were rated least favourably. This pattern was similar for both the Western Downs and the eastern Maranoa, as shown in Figure 14.

In the Western Downs, 13 of the 15 wellbeing dimensions were rated positively except for perceptions of local decision making – the opportunity to have a say and be kept informed on important local developments - and satisfaction with the condition, safety, and amount of traffic on roads in the area. In the eastern Maranoa perceptions of roads was the only negatively viewed dimension.

Across all the community wellbeing dimensions, residents of the eastern Maranoa had more favourable perceptions than residents of the Western Downs, except for town appearances, as shown in Figure 14. This aligns with the higher overall wellbeing measure found in the eastern Maranoa compared to the Western Downs.

Each dimension comprises multiple items and these items are reported for each region and subregion for 2024 in Appendix A.7. Changes in individual items across 2014, 2016, 2018, and 2024 for each region can be found in Appendix A.8. These can also be explored online for selected items using an interactive tool, available at https://shiny.csiro.au/csg_survey

Figure 14 Community wellbeing dimensions: Western Downs and eastern Maranoa, 2024



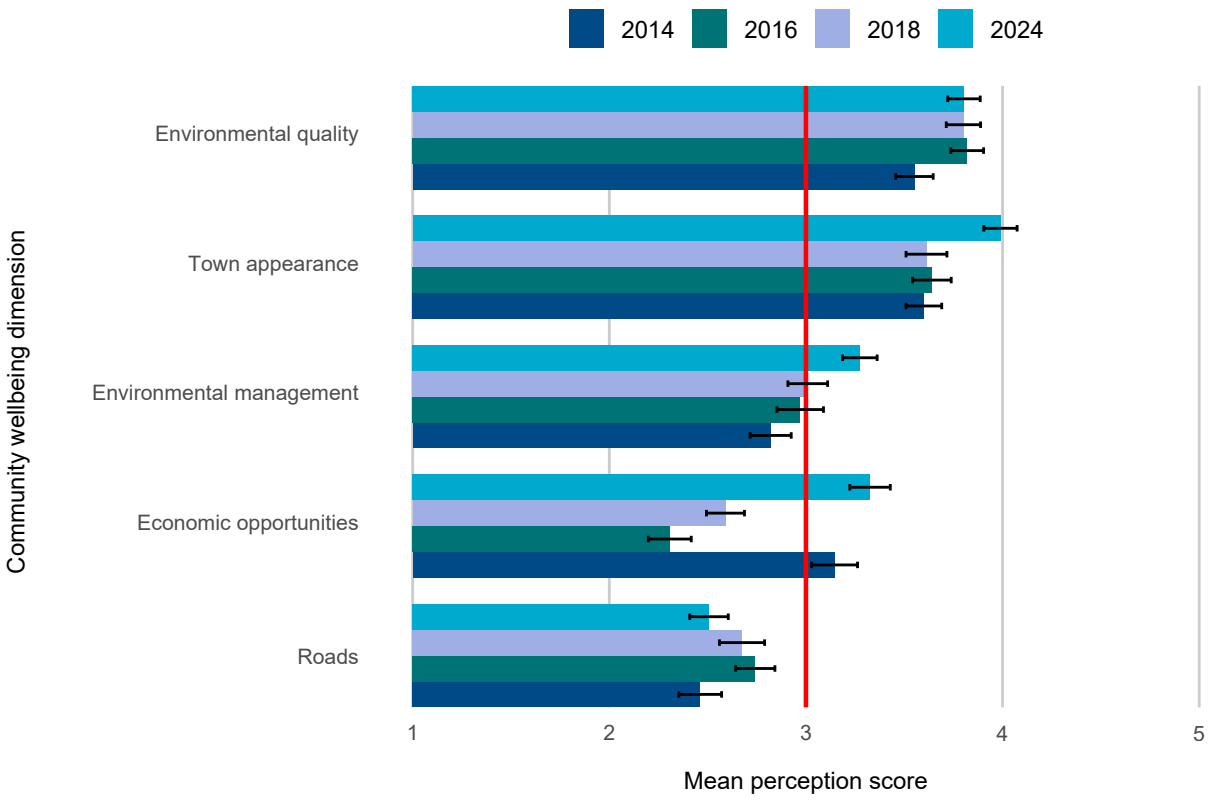
Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

Changes in community wellbeing dimensions: Western Downs region 2014 – 2024

Over the past decade in the Western Downs, results showed statistically significant changes in eleven of the fifteen wellbeing dimensions, though some of these changes were small. Perceptions of roads, income sufficiency, individual health, and personal safety were lower in 2024 than previous years. Whereas, perceptions of environmental quality, town appearance, community cohesion, environmental management, economic opportunities, local trust, and social interaction had all become more favourable than in earlier years.

The dimensions showing the most changes included environmental quality, town appearance, environmental management, economic opportunities, and roads. Perceptions of economic opportunities showed the greatest shift with residents' view of employment and business opportunities becoming positive and increasing significantly from a large drop in 2016 and 2018 compared to 2014. Figure 15 shows the dimensions with the statistically greatest changes. Table 23 in Appendix A.9 shows the means for these and other community wellbeing dimensions. Appendix A.8 tables the changes over time for constituent survey items.

Figure 15 Changes in selected community wellbeing dimensions: Western Downs, 2014 - 2024

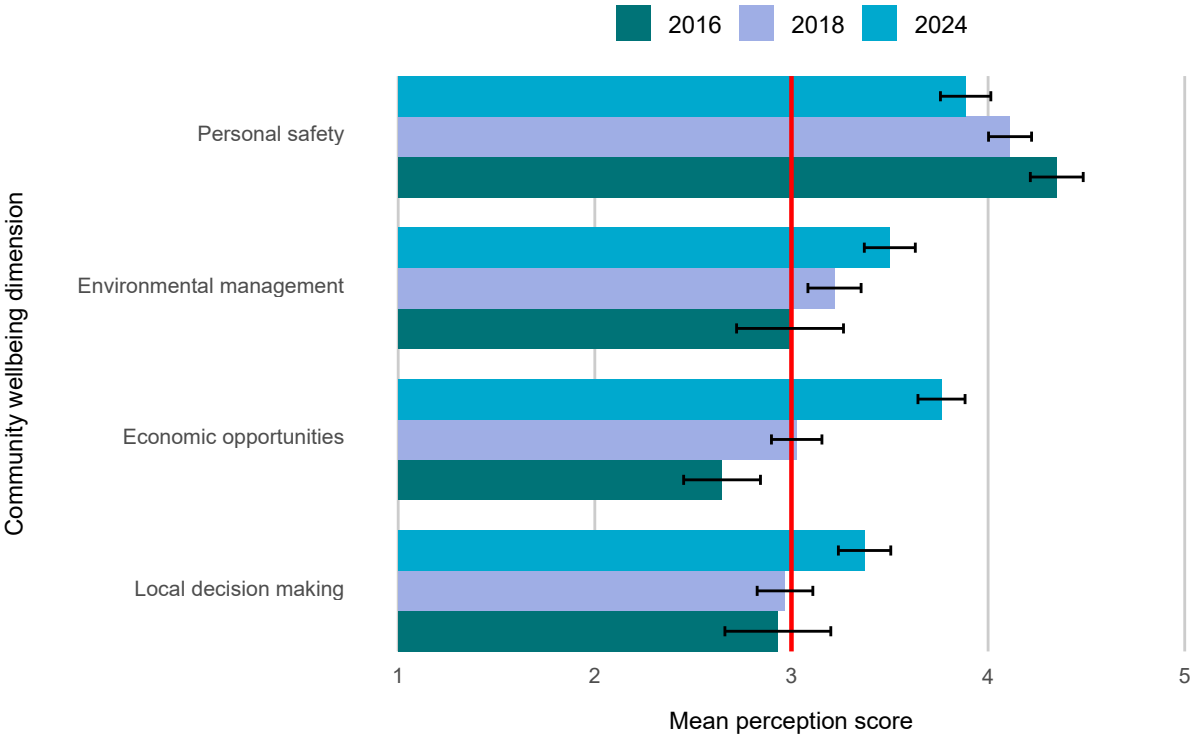


Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

Changes in community wellbeing dimensions: eastern Maranoa 2016 – 2024

In the eastern Maranoa, four community wellbeing dimensions showed statistically significant changes since 2016 – personal safety, environmental management local decision making and employment and business opportunities. Perceptions of the other dimensions remained similar to previous years. Like the Western Downs, perceptions of personal safety were lower in 2024 than earlier, as shown in Figure 16. In contrast, perceptions of environmental management, local decision making and economic opportunities had improved with all three dimensions shifting from unfavourable views on average in 2016 to favourable perceptions. Figure 16 shows the greatest change was in economics opportunities. Table 24 in Appendix A.9 shows the means for all community wellbeing dimensions for the eastern Maranoa over time, while Appendix A.8 summarises changes over time for constituent survey items.

Figure 16 Changes in selected community wellbeing dimensions: eastern Maranoa region 2016 – 2024



Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

Changes in community wellbeing dimensions for sub-regions 2014 – 2024

Changes in community wellbeing dimensions at the regional level for 2014 – 2024 can be found in the tables of A.8. These can also be viewed interactively in the online website https://shiny.csiro.au/csg_survey. Changes in wellbeing for regions at the item level can be found in Appendix A.8.

3.3 Most important dimensions underpinning community wellbeing

Identifying which factors most significantly impact community wellbeing is critical for effectively allocating limited resources and planning initiatives to enhance residents' quality of life. Interestingly, the dimensions that residents rate highest or lowest aren't always the ones that most influence their perceptions of their community as a great place to live (see Figure 17).

For the Western Downs in 2024, the most important dimensions contributing to a sense of community wellbeing were: community spirit, perceptions of services and facilities, local trust and community cohesion. These dimensions have remained consistently important to community wellbeing over the last decade, as shown in Table 4. Economic opportunities and environmental management as contributors to perceptions of community wellbeing only featured in the top six most important dimensions in one survey year – the 2016 post-construction phase. Subsequently, in 2024 environmental management had become the weakest correlation. In 2024, personal safety featured for the first time in the top six correlations with community welling. For the eastern Maranoa, the same four dimensions (community spirit, services and facilities, community cohesion, and local trust) along with perceptions of local decision making were important drivers of a sense of wellbeing in the community (see Table 5).

Interestingly, perceptions of roads even though viewed the least favourably of all dimensions was not strongly associated with a sense of community wellbeing in neither the Western Downs nor the eastern Maranoa. This is illustrated in Figure 17 and Figure 18 where the size of the bubbles indicates the size of the association of a dimension to overall community wellbeing. The positioning of the bubbles, that is to the right or to the left of the red line, shows how residents rated their satisfaction with the dimension. Taken together this information helps to prioritise where to target resources to enhance overall community wellbeing.

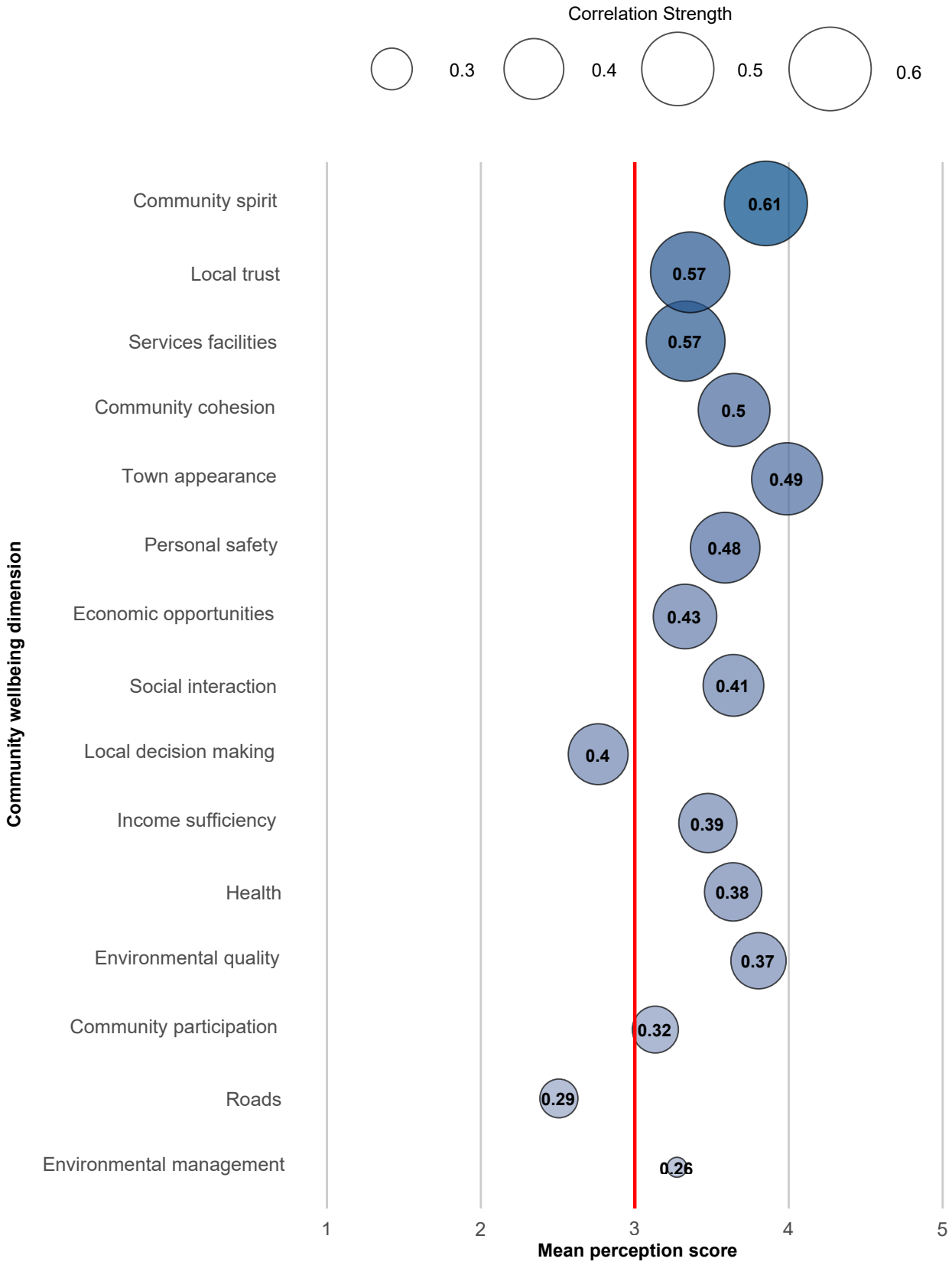
Table 4 Most important wellbeing dimensions over time (top 6 dimensions): Western Downs region

2014 Construction phase	2016 Post-construction	2018 Early operations phase	2024 Full operations phase
Services and facilities	Services and facilities	Local trust	Community spirit
Community spirit	Community spirit	Community cohesion	Local trust
Community cohesion	Local trust	Community spirit	Services and facilities
Local trust	Community cohesion	Services and facilities	Community cohesion
Town appearance	Economic opportunities	Town appearance	Town appearance
Environmental quality	Environmental management	Environmental quality	Personal safety

Table 5 Most important wellbeing dimensions over time (top 6 dimensions): eastern Maranoa

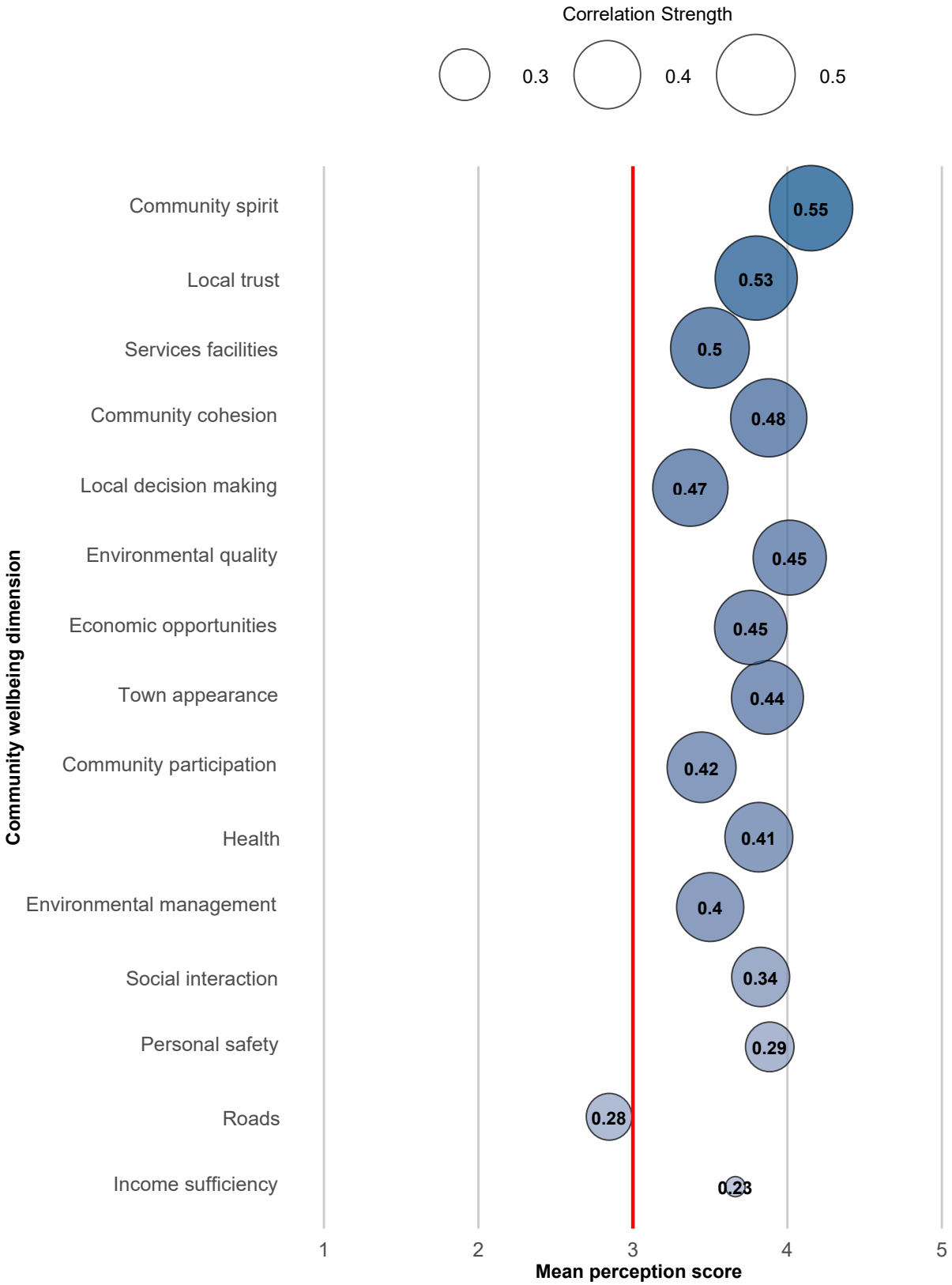
2016 Post-construction	2018 Early operations phase	2024 Full operations phase
Local trust	Local trust	Community spirit
Community cohesion	Community spirit	Local trust
Community spirit	Services and facilities	Services and facilities
Services and facilities	Community cohesion	Community cohesion
Town appearance	Environmental quality	Local decision making
Environmental quality	Town appearance	Environmental quality

Figure 17 Most important dimensions for community wellbeing: Western Downs region 2024



Note: The size of the bubbles corresponds to the relative importance of the dimension to a sense of overall community wellbeing; the number inside the bubble is the correlation measure - the higher the number the greater the association with perceptions of overall wellbeing; the mean perception scores along the x-axis indicates the level of residents' satisfaction with the dimension - a score to the left of the red line indicates an unfavourable view on average.

Figure 18 Most important dimensions for community wellbeing: eastern Maranoa region 2024



Note: The size of the bubbles corresponds to the relative importance of the dimension to a sense of overall community wellbeing; the number inside the bubble is the correlation measure - the higher the number the greater the association with perceptions of overall wellbeing; the mean perception scores along the x-axis indicates the level of residents' satisfaction with the dimension - a score to the left of the red line indicates an unfavourable view on average.

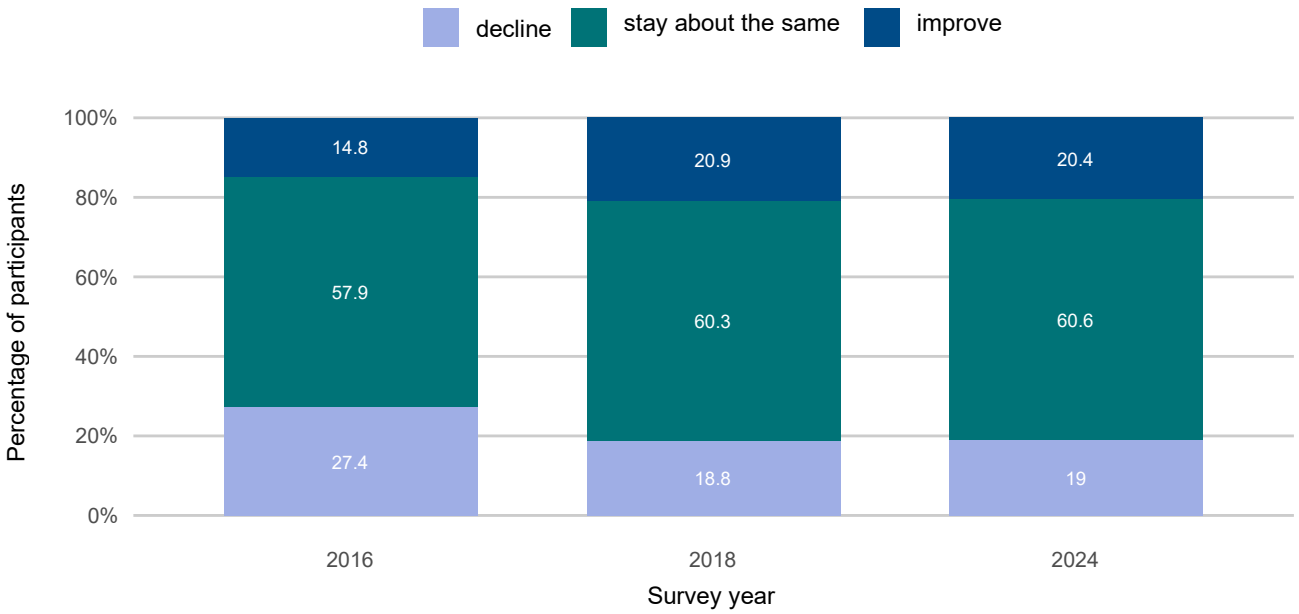
4 Expected future community wellbeing

Expected future community wellbeing: Western Downs

In 2024, most people in the Western Downs region expected future community wellbeing to stay the same in three years' time (approximately 61% of residents), as shown in Figure 19. People were similarly positive as they were negative in their outlook with almost as many people expecting their future community wellbeing would improve (20%) as those who felt it would decline (19%).

When compared to 2016, there was a significant increase in people holding a positive outlook and significant decrease in people who felt their future wellbeing would decline in 2024.

Figure 19 Expected future community wellbeing: Western Downs 2016 – 2024

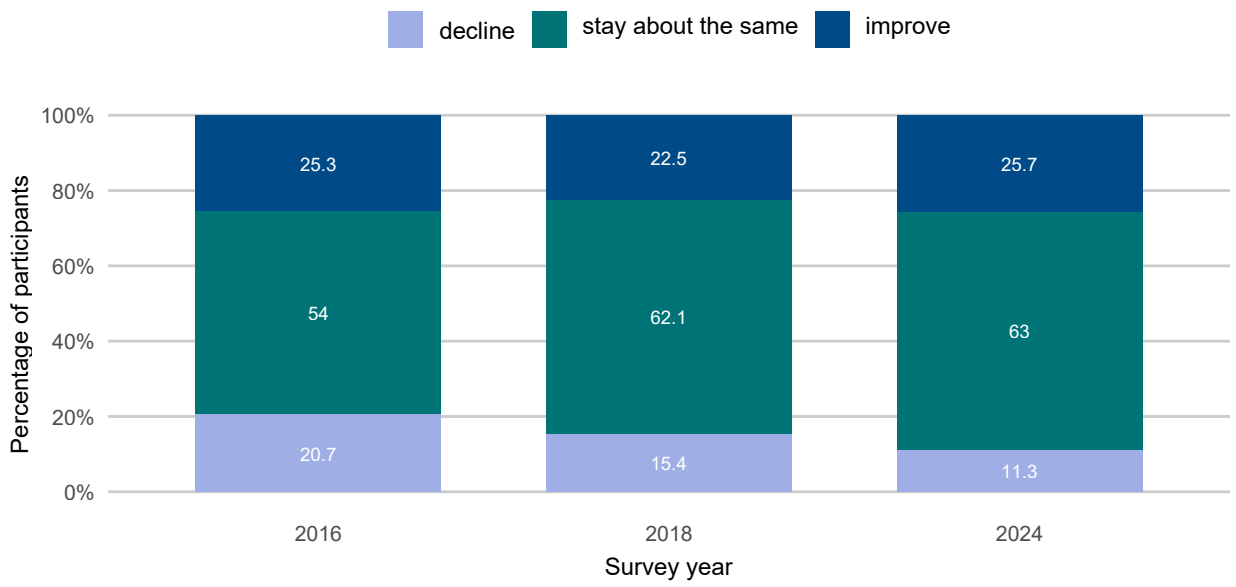


Note: this question was not asked in 2014.

Expected future community wellbeing: eastern Maranoa

In the eastern Maranoa, 2024 results found that most people expected future community wellbeing to stay about the same with twice as many people more positive in their outlook (approximately 26% of residents) than negative (approximately 11% of residents). Figure 20 shows that since 2016 there has been a gradual decrease in the proportion of people who felt their community wellbeing would decline in three years hence.

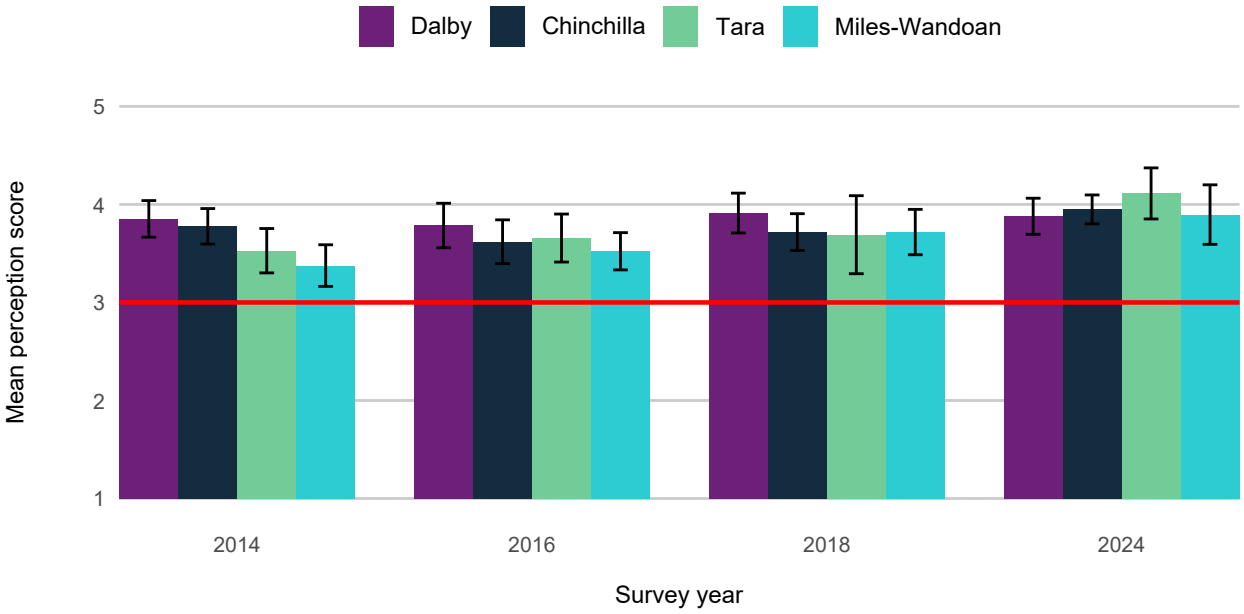
Figure 20 Expected future community wellbeing: eastern Maranoa 2016 – 2024



Differences among subregions

Over the decade perceptions of expected future community wellbeing have become significantly more positive in Tara and Miles-Wandoan, with views in Dalby and Chinchilla staying similar across the years. In 2024, Tara and Miles-Wandoan residents had similar perceptions of their expected community wellbeing as the other subregions, as shown in Figure 21.

Figure 21 Perceptions of expected future wellbeing: By subregions 2014-2024



Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

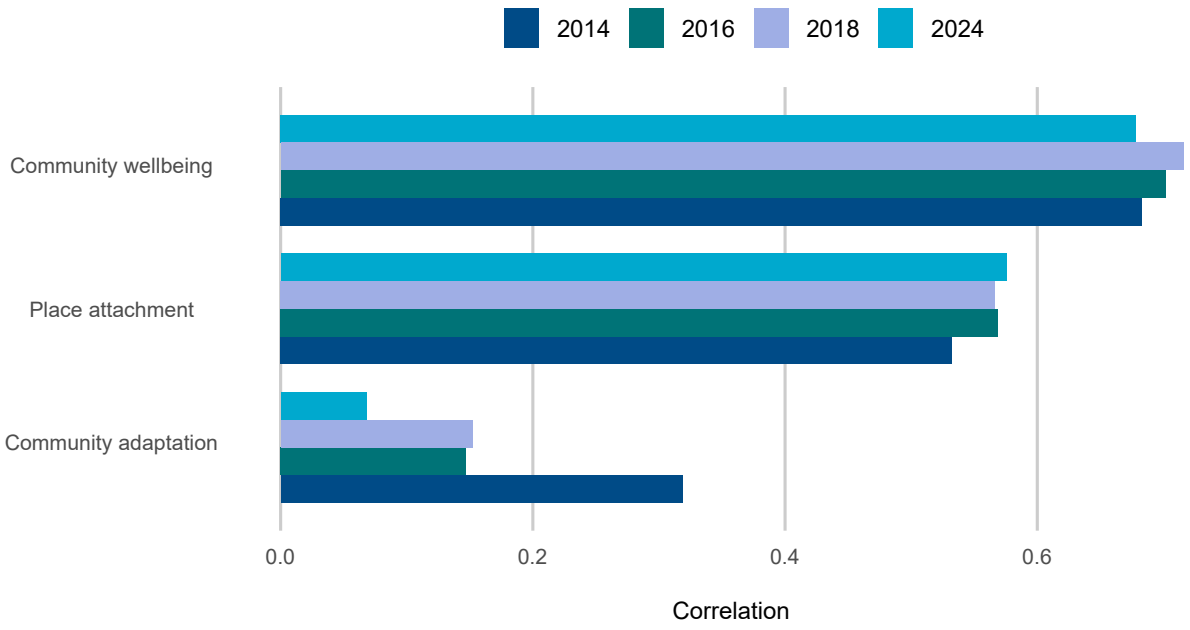
Differences between In-town and Out-of-town

There were no statistically significant differences based on whether a person lived in-town or out-of-town in expected future wellbeing for 2024. This was similar to previous years.

4.1 Underlying drivers of expected future community wellbeing

Expectations of future community wellbeing were consistently linked to perceptions of current community wellbeing and placement attachment. One difference in 2024 from earlier years is the lack of association between perceptions of community adaptation to CSG development and expected community wellbeing in three years hence. In earlier years, particularly the construction years of 2014, there was a positive correlation between perceptions of how well the community was adapting to change and expected future wellbeing. This relationship was weak in 2024, as shown in Figure 22, suggesting that expectations about future community wellbeing no longer revolved around how well the community thought they were adapting to CSG development.

Figure 22 Changes in importance of underlying drivers of expected future community wellbeing: Western Downs



Open-text responses about future community wellbeing

In 2024, participants were also asked in an open-text question to share their reasoning behind expecting future wellbeing to decline, stay the same, or improve. Within their responses, four narratives about expected future community wellbeing were identified:

1. *'Facing challenges':* main narrative of participants who expected wellbeing to decline. Expressed as a largely negative sentiment covering economic challenges, such as, cost of living pressures, lack of jobs, and inflation, as well as social challenges including increased crime and lack of access to health care.
2. *'Stability and things are good':* main narrative of those who expected wellbeing to stay the same. Expressed as mostly neutral with some positive sentiment indicating contentment with the expected lack of change, expecting economic stability and availability of jobs to continue.
3. *'Stability and things not improving':* second most common narrative of 'stay the same' responses. Expressed as mostly neutral with some negative sentiment, concerned about the lack of change and likely no improvement to issues such as housing, healthcare, and support for the aging. Impacts from both gas and renewable energy developments mentioned.

4. *'New and improved':* main narrative of those who expected community wellbeing to improve. Expressed as generally positive and optimistic referring to expectations of an increase in new people and businesses to the area, enhanced local facilities and services, and ongoing economic opportunities, all driving a stronger sense of community.

Table 6 provides examples of quotes for each narrative.

Table 6. Expected future community wellbeing narratives and example quotes.

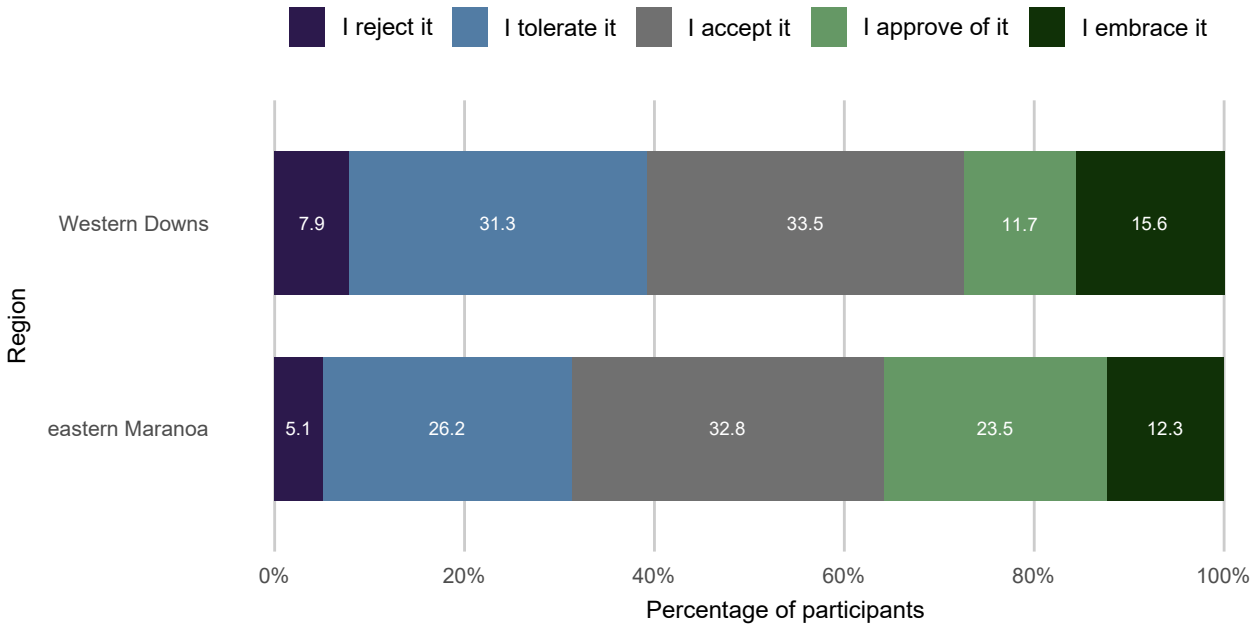
NARRATIVES	EXAMPLE QUOTES (respondent number)
Facing challenges	*The economic situation is looking bleak (731).* *The crime rate is increasing exponentially. And it's become a very transient area now, which in a lot of ways hasn't been good. Losing that community spirit. Not sure where our medical is headed either - can't get in to see a doctor now, so that is going backwards. Our hospital standards have dropped over the last few years. (63)*
Stability and things are good	*Can't see anything too dramatic changing, fairly stable industries and employment (554)* *Employment is quite secure, community support services are secure, Council does a good job. No reason to see that is likely to decrease, certainly the resource and gas industry are likely to continue to expand. (319)*
Stability and things not improving	*Be better if they would fix the roads, but the chance of that is minimal (115)* *We have a lot of employment here, but we don't have a lot of housing, so people will move here for the work but there is no housing. (200)*
New and improved	*People keep moving here. They are actively trying to make it better (366)* *Number of people here are increasing. People moving from the city. Financially, the land and housing is affordable. Rural lifestyle is popular. (297)*

5 Attitudes and perceptions of CSG development

5.1 Attitudes towards CSG development in 2024

In 2024, there was a range of views towards CSG development evident in both the Western Downs and eastern Maranoa. The spread of attitudes was similar for both regions, though results showed more favourable attitudes in the eastern Maranoa. Figure 23 shows more people either approving or embracing CSG development in the eastern Maranoa and fewer people rejecting it than residents of the Western Downs. This pattern is similar to previous survey years with eastern Maranoa holding more positive attitudes toward CSG than the Western Downs overall.

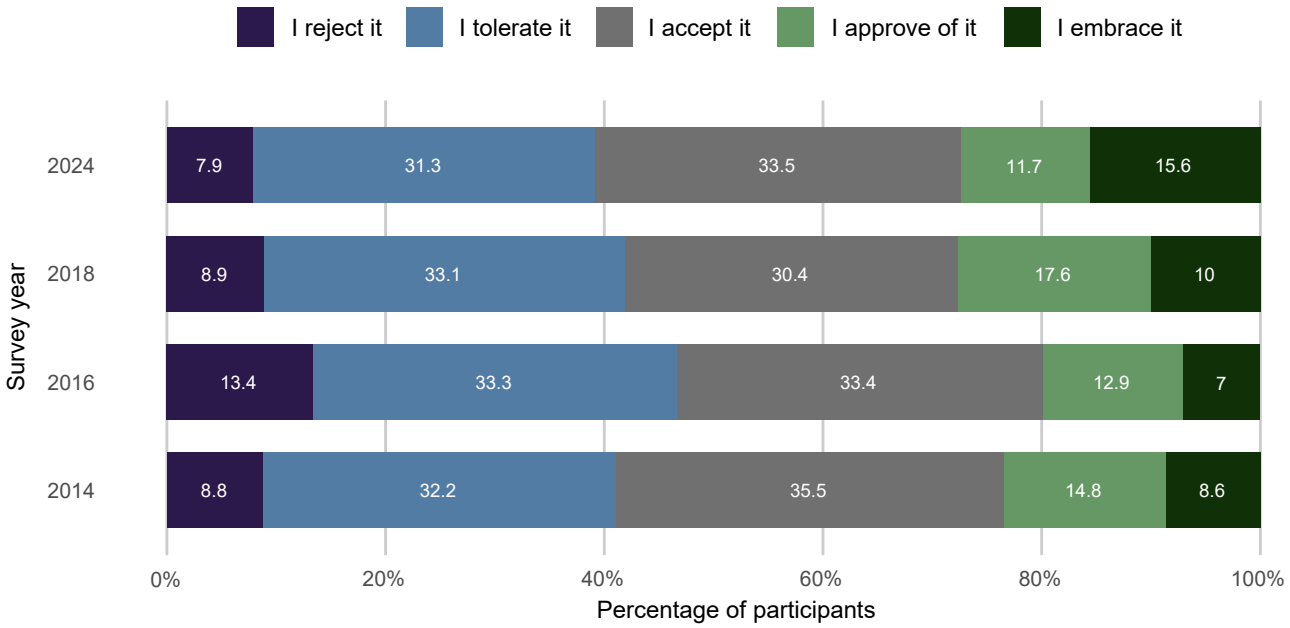
Figure 23 Attitudes towards CSG development: Western Downs and eastern Maranoa, 2024



5.2 Attitudes towards CSG development Western Downs: 2014 – 2024

In 2024, approximately 8% of people in the Western Downs reported they ‘reject’ living near CSG development in their region. This was a decrease from the highest rejection rate of 13.4% observed in 2016. Conversely, the percentage of individuals who reported they ‘embrace’ CSG reached its highest level at 15.6% in 2024 compared to all other survey years. Figure 24 shows that while residents' overall attitudes have generally become more positive, the proportion of people who "tolerate" or "accept" CSG has remained relatively stable over time in the Western Downs region, despite variations at the subregional level (see below).

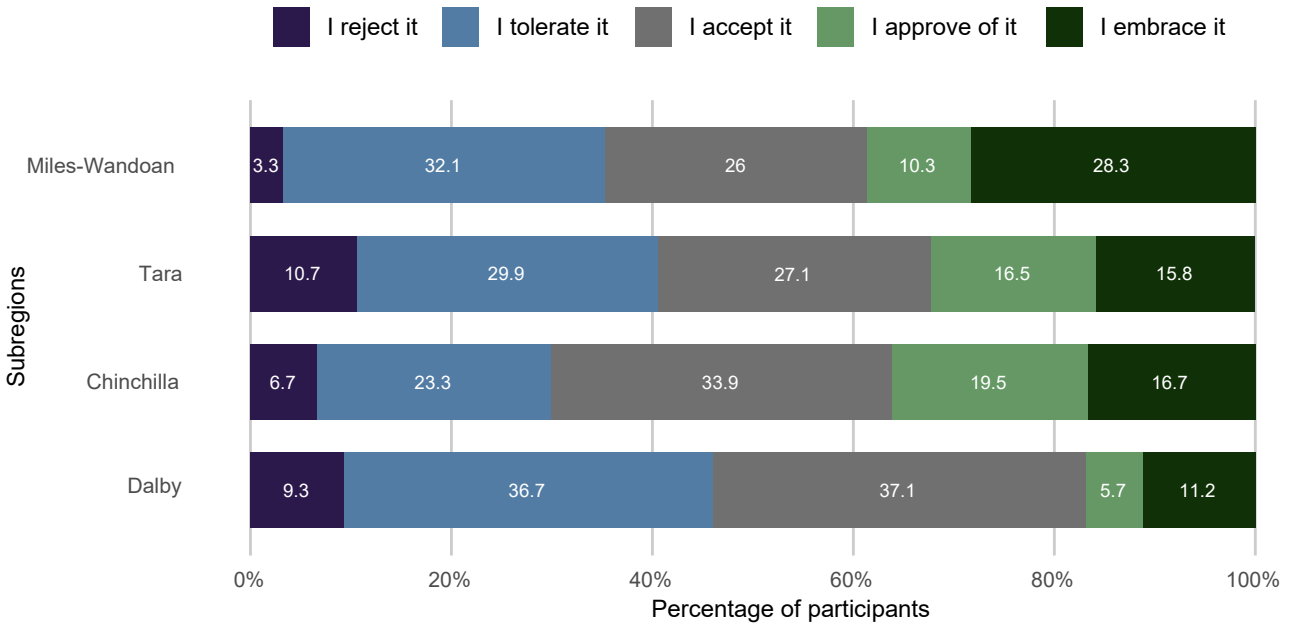
Figure 24 Attitudes towards CSG development in the Western Downs region: 2014-2024



Differences among subregions

In 2024, survey responses revealed varying levels of CSG acceptance across different subregions of the Western Downs. As shown in Figure 25, the Miles-Wandoan region had the highest proportion of people who 'embrace' CSG (28.3%) and a small percentage (3.3%) who 'reject' it. In contrast, both Dalby and Tara had rejection rates closer to 10%, the highest among the Western Downs subregions.

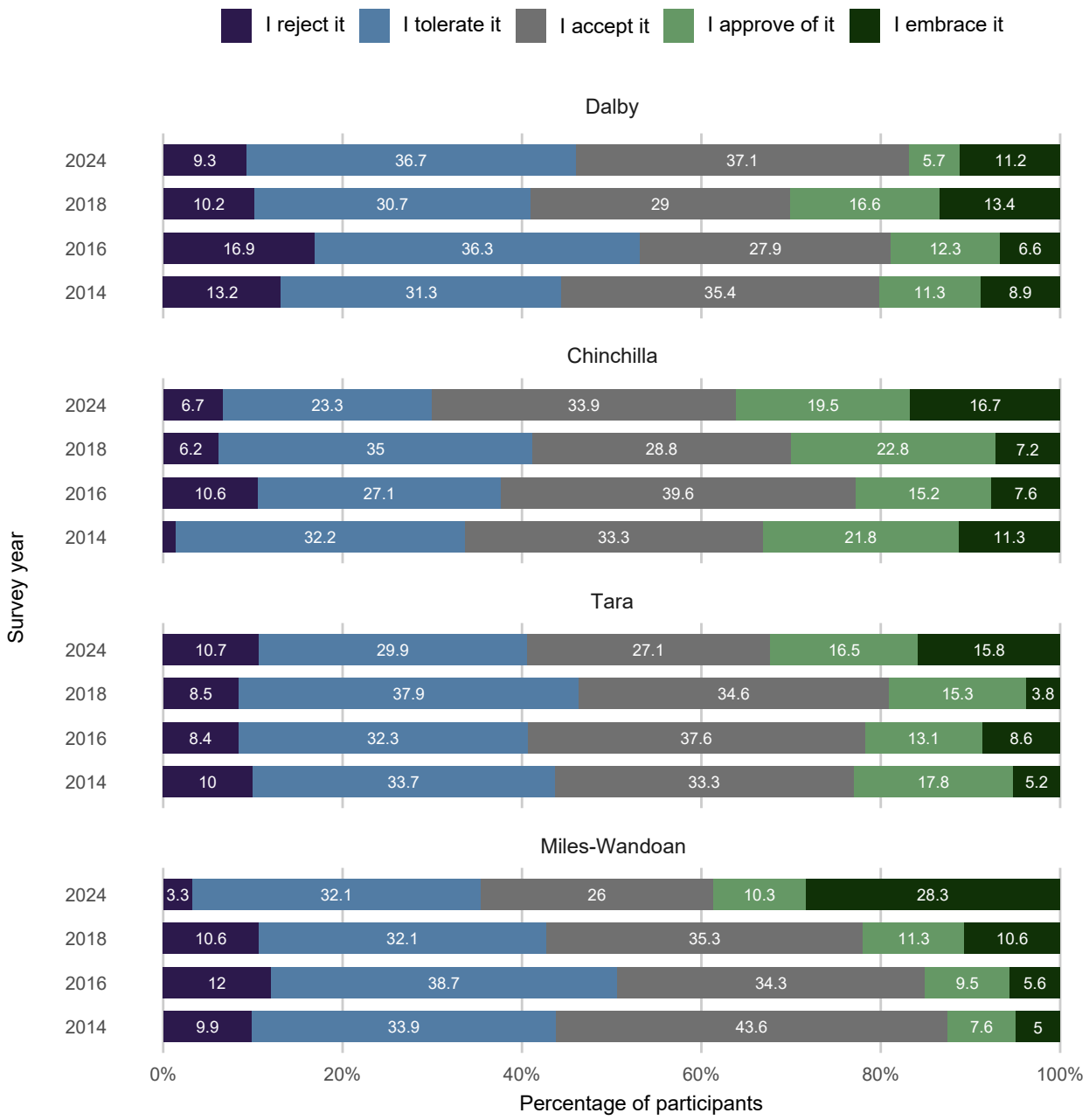
Figure 25 Attitudes towards CSG development: Subregions of the Western Downs, 2024



Changes in attitudes over time in the subregions

Attitudes towards CSG development have changed over time in all subregions of the Western Downs. As shown in Figure 26, most subregions of the Western Downs had the highest rates of those who 'approve' and 'embrace' in 2024. The only exception is Dalby, where 2024 had the lowest percentage of people who either 'approve' or 'embrace' CSG over the four surveys years. In Dalby, the peak of support was 2018, where 30% of Dalby residents either 'approved' or 'embraced' CSG development, dropping to 16.9% in 2024. Miles-Wandoan has seen the most substantial increase in support over time going from 12.6% 'approve' or 'embrace' in 2014 to 38.6% in 2024.

Figure 26 Attitudes towards CSG development: Subregions of the Western Downs over time



Differences between Out-of-town and In-town residents

In 2024, 11.8% of people living out-of-town in the Western Downs reported that they reject CSG developments, while 12.7% said they 'embrace' it, as shown in Figure 27. In contrast, people living in-town had lower rejection levels at 5.7% and higher embrace levels at 17.3%. Even so, levels of 'embracing it' have increased for both in-town and out-of-town residents since 2014, though in-town residents had their least favourable views of the industry in 2016, corresponding to the post-construction phase, as shown in Figure 28.

Figure 27 Attitudes towards CSG development: In-town and Out-of-town in the Western Downs, 2024

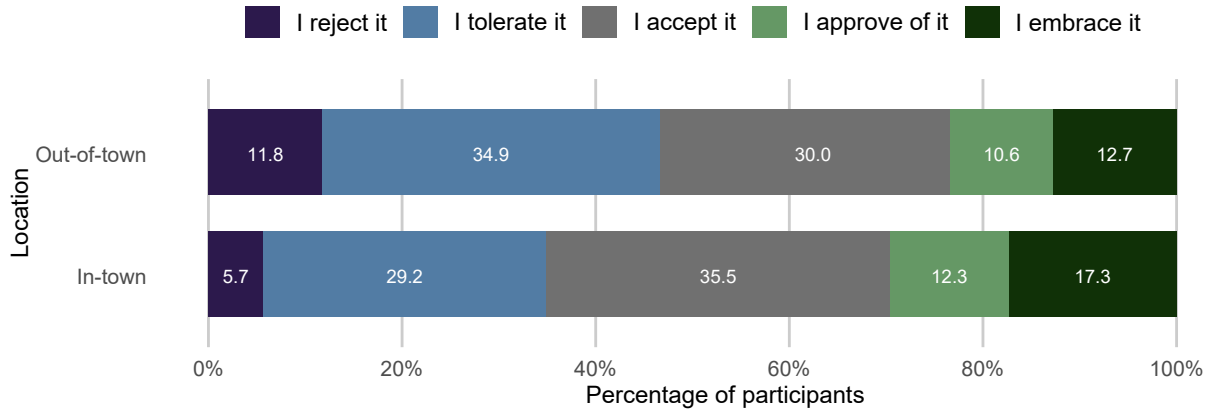
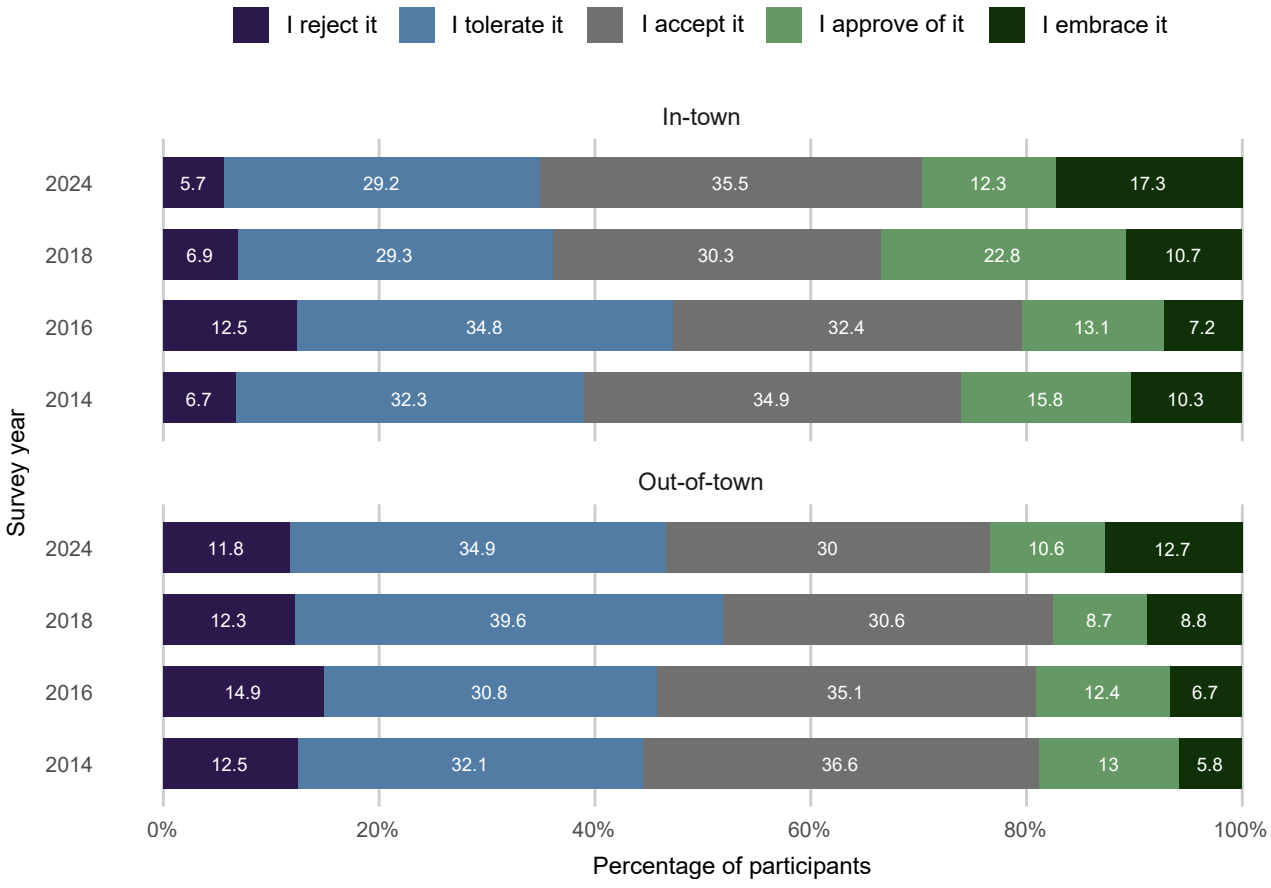


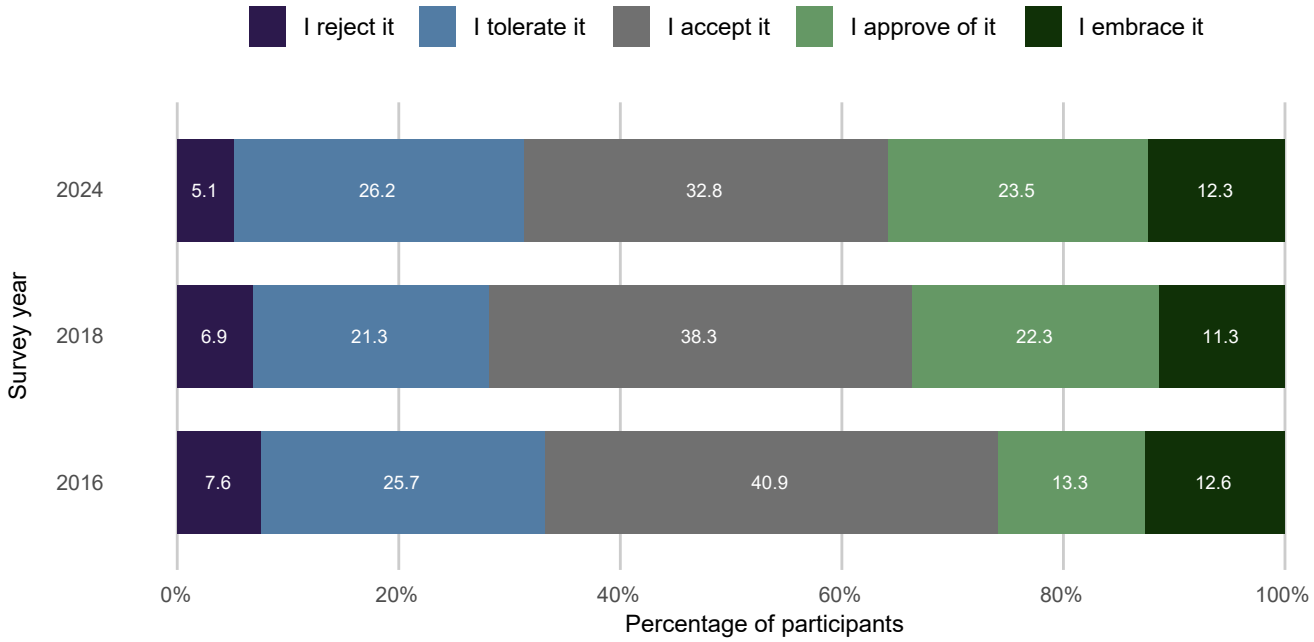
Figure 28 Changes in attitudes over time for Out-of-town and In-town residents in the Western Downs



5.3 Attitudes towards CSG development eastern Maranoa: 2016 - 2024

Similar to the Westen Downs region, survey results for the eastern Maranoa showed the lowest percentage of people reported that they rejected CSG development in 2024 (5.1%) compared to other years and attitude categories (see Figure 29). The 2024 results also showed that the proportion of people who either 'approve' or 'embrace' CSG development in the eastern Maranoa is at its highest. The combined percentage of people who 'approve' or 'embrace' has increased from its lowest level of 25.9% in 2016 to 35.8% in 2024. Compared to the Western Downs region, there has also been more variability in the percentage of people who 'tolerate' and 'accept' over time to more favourable views. Comparing people in-town to people out-of-town in the eastern Maranoa, there was a similar distribution of attitude levels in 2024. Interestingly, the rejection rate for those living out-of-town in eastern Maranoa was at its peak in 2018 (with 13% rejecting) but reduced to 5.4% in 2024.

Figure 29 Attitudes towards CSG development in the eastern Maranoa region: 2016-2024

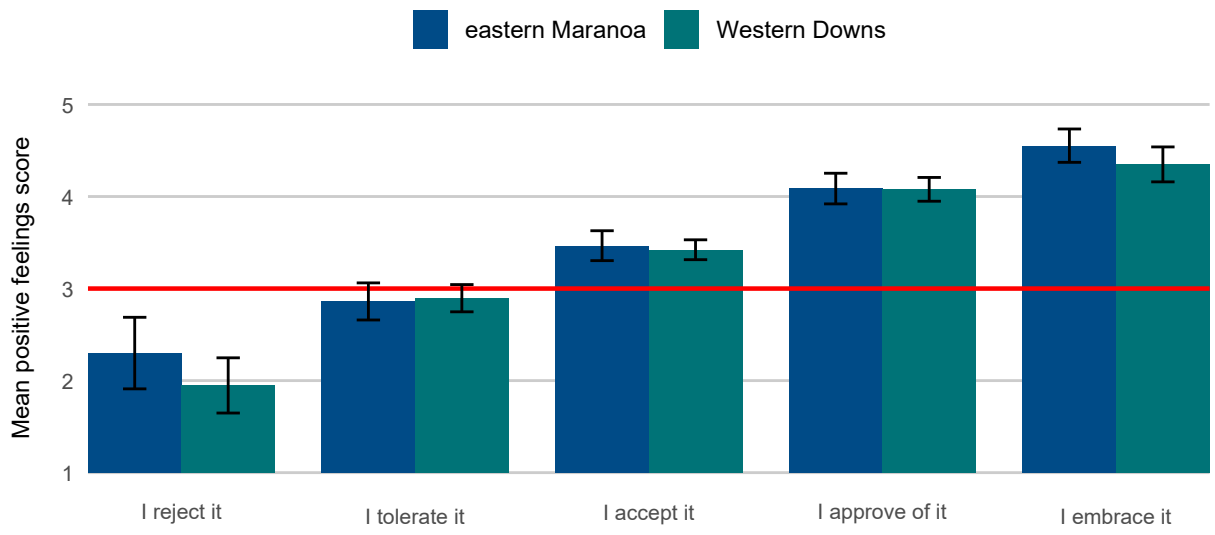


5.4 Feelings towards CSG development

Feelings towards CSG development: Western Downs and eastern Maranoa, 2024

The feelings people associate with CSG development provide further insights into their levels of acceptance. For instance, people who report they 'tolerate' a local project tend to express quite neutral feelings on average (2.90 WD and 2.86 EM on a 1 to 5 scale), those 'rejecting it' feel quite negative (1.95 WD and 2.30 EM out of 5), while those 'accepting', 'approving' or 'embracing' it all feel positive on average about CSG development. See Figure 30.

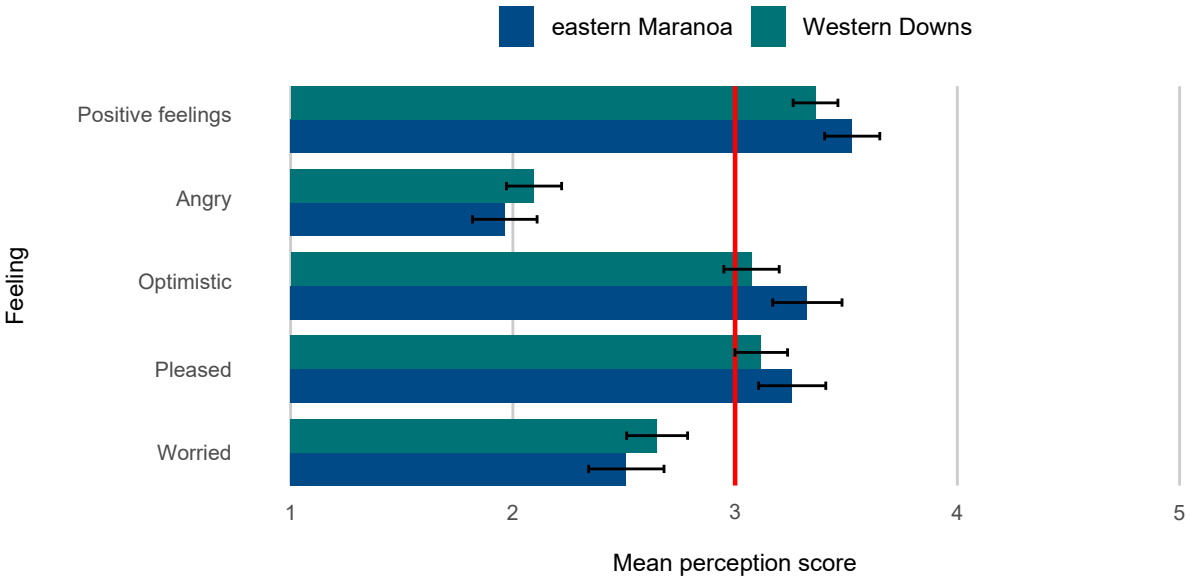
Figure 30 Average level of positive feelings about CSG by attitude, 2024



Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

As shown in Figure 31, people living in the eastern Maranoa reported a higher level of positive feelings towards CSG development, on average, compared to people living in the Western Downs. People living in the eastern Maranoa also reported feeling more optimistic and pleased, and less worried and angry compared to the Western Downs.

Figure 31 Feelings towards CSG development: Western Downs and eastern Maranoa, 2024

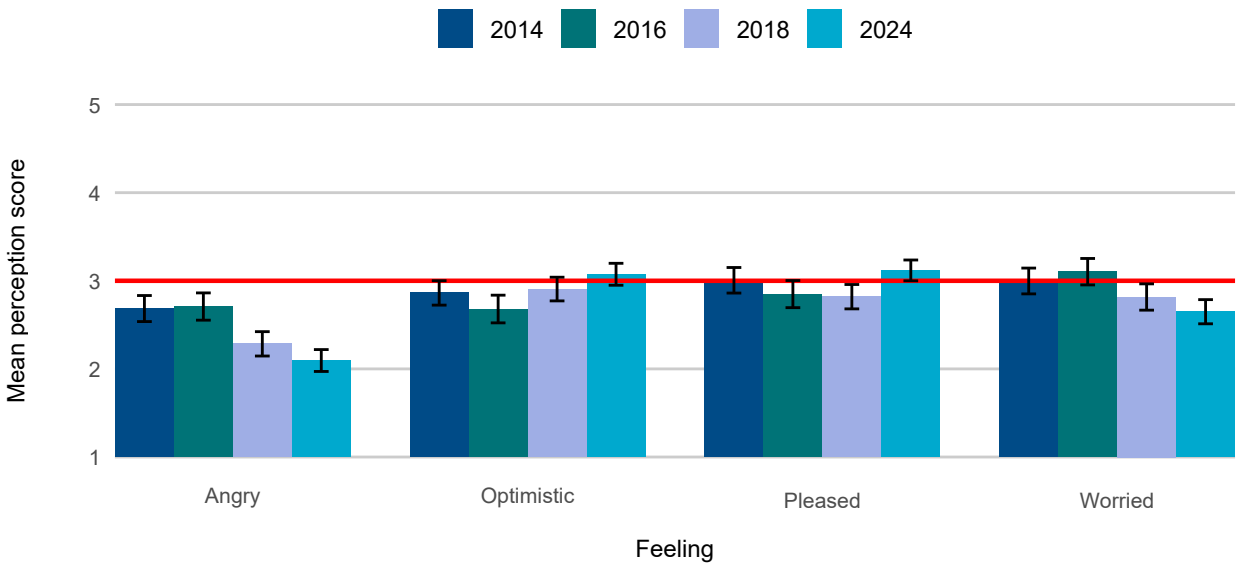


Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions (for positive emotions), scores > 3 indicate favourable perceptions (for positive emotions). The scoring is reversed for negative emotions.

Changes in feelings towards CSG development: 2014 – 2024

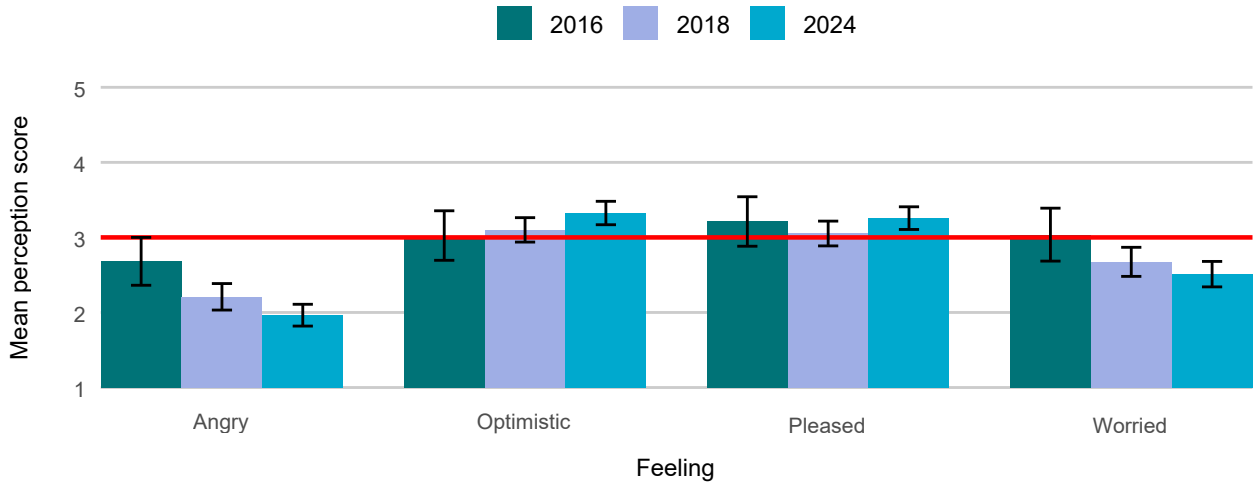
Positive feelings have stayed relatively consistent over the years in both the Western Downs and the eastern Maranoa. However, as shown in Figure 32 and Figure 33, the average levels of reported worry and anger about CSG development have dropped to a statistically significant extent when comparing 2016 to 2024 in both the Western Downs and the eastern Maranoa. The average level of reported anger in both regions stayed low, and dropped even further, in 2024. Similarly, residents reported the lowest levels of worry in 2024 further reducing down from previous years and indicating not being worried on average. In both regions, all positive feelings were at their highest and all negative feelings at their lowest in 2024.

Figure 32 Feelings towards CSG development: Western Downs, 2014 – 2024



Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions (for positive emotions), scores > 3 indicate favourable perceptions (for positive emotions). The scoring is reversed for negative emotions.

Figure 33 Feelings towards CSG development: eastern Maranoa, 2016 – 2024



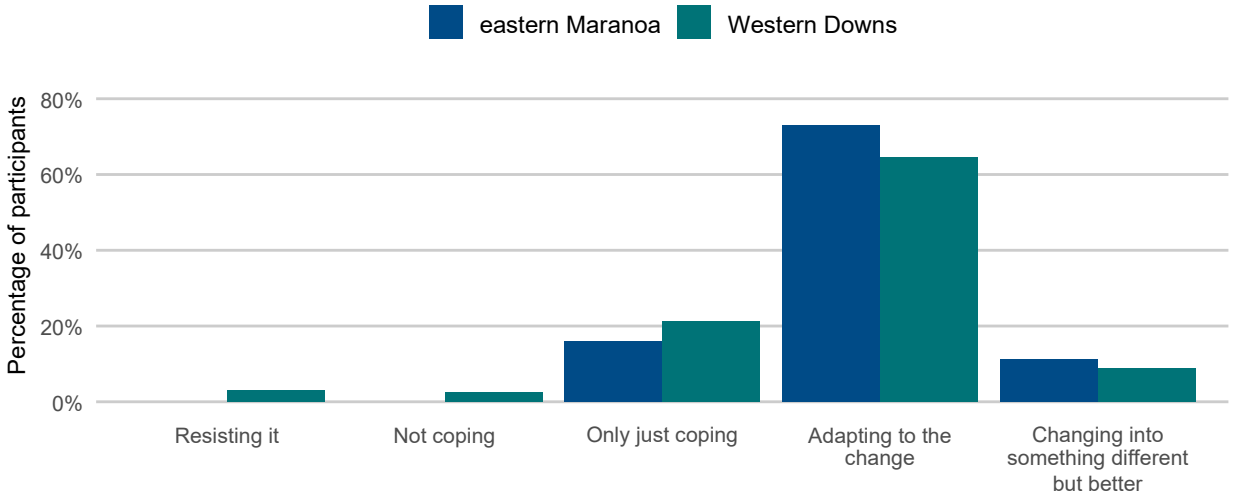
Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions (for positive emotions), scores > 3 indicate favourable perceptions (for positive emotions). The scoring is reversed for negative emotions.

5.5 Adapting to CSG development

Perceptions of community adapting to CSG development: Western Downs and eastern Maranoa, 2024

Figure 34 shows most people living in the Western Downs (73.3%) and the eastern Maranoa (84.1%) reported their region was 'adapting to the change' or 'changing into something different but better' when asked to consider how their region was dealing with CSG activities in 2024. Only 5.5% of people living in the Western Downs reported that their region was either 'resisting it [CSG]' or 'not coping' with CSG activities. No participants in the eastern Maranoa sample reported that their region was 'resisting' or 'not coping' with CSG activities in 2024.

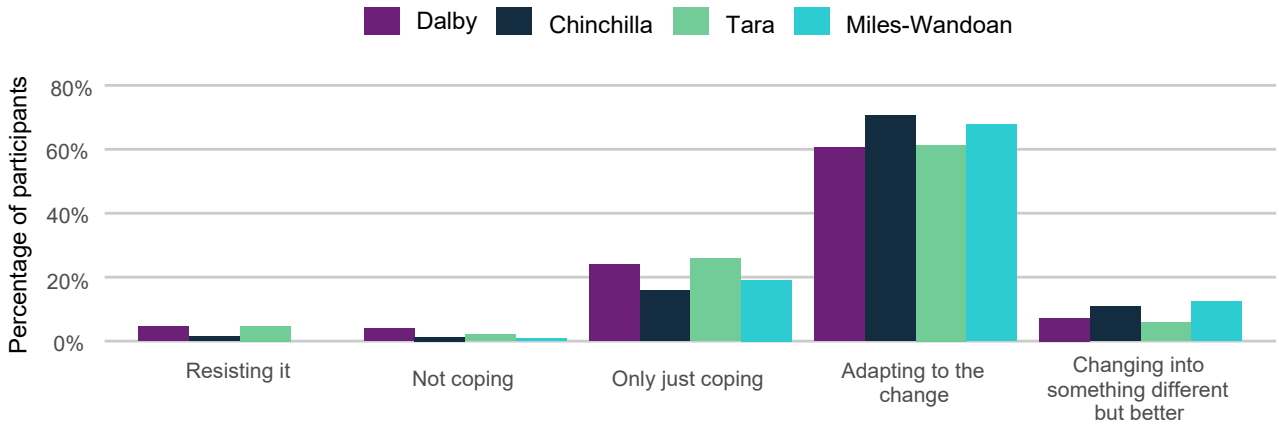
Figure 34 Perceptions of community adapting to CSG development: Western Downs and eastern Maranoa, 2024



Differences by subregions

Views about the community's adaptation to CSG activities were relatively consistent across the subregions of the Western Downs in 2024. Figure 35 shows over 65% of people living in each subregion of the Western Downs reported that their community was at least 'adapting to the change'. Perceptions that their community 'resisting', 'not coping' or 'only just coping' were highest in Dalby and Tara regions, with a third of people in Dalby and Tara reporting one of these three evaluations.

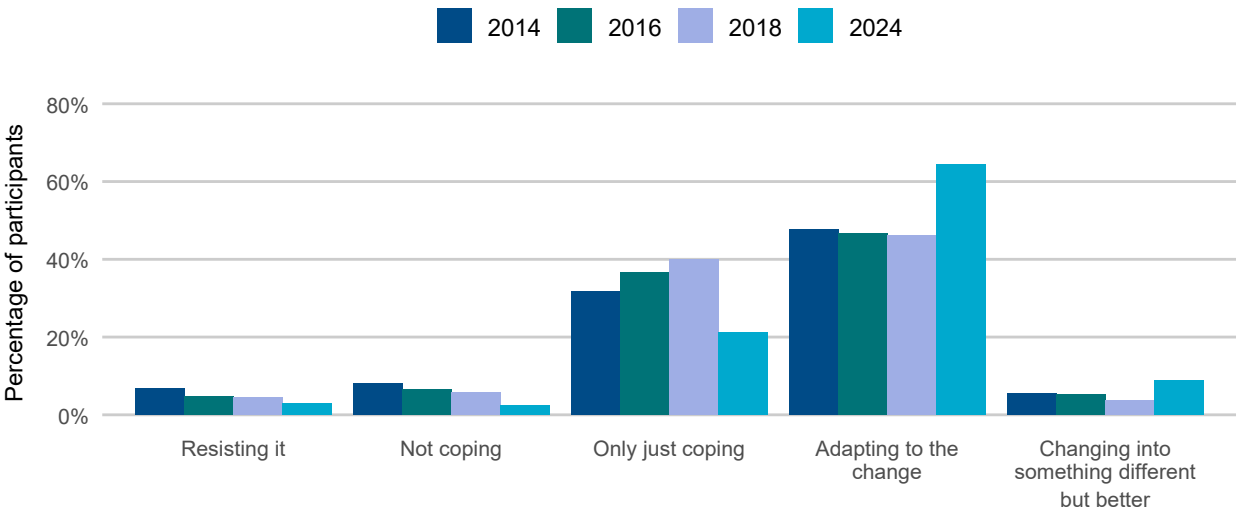
Figure 35 Perceptions of community adapting to CSG development: Subregions, 2024



Perceptions of community adapting to CSG development: Western Downs, 2014 – 2024

Until 2024, views about how communities in the Western Downs were coping and adapting to CSG activities remained relatively consistent over time. However, Figure 36 shows in 2024 there was a large increase in the proportion of people reporting their communities were 'adapting to the change' (an increase of 18.4% from 2018) and a substantial decrease in the proportion of people saying their community was 'only just coping' (a decrease of 18.8%). In 2024, 73% of participants indicated their community was adapting to the change or changing into something different but better.

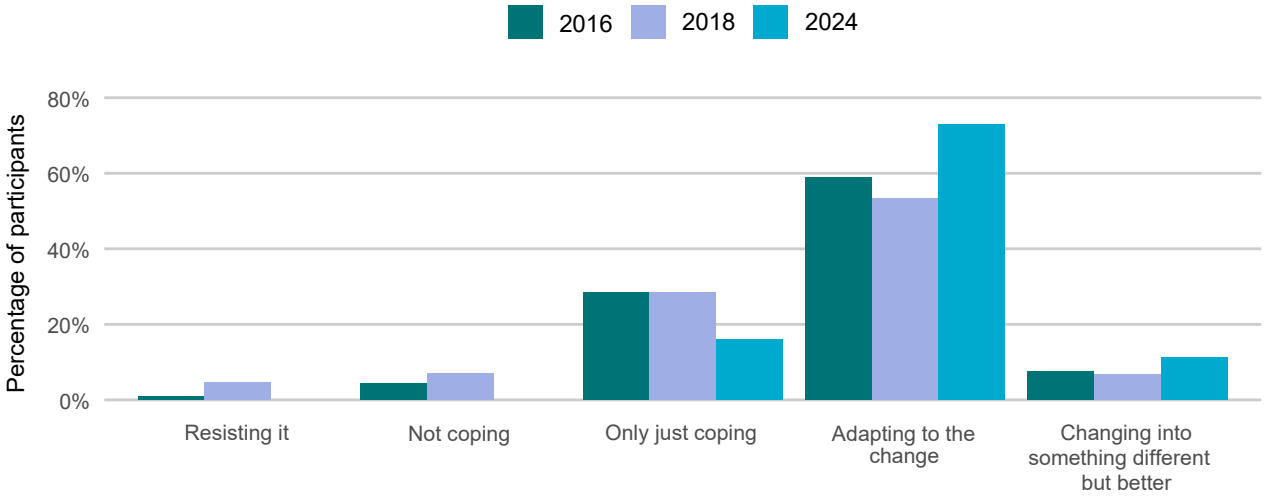
Figure 36 Perceptions of community adapting to CSG development: Western Downs, 2014 – 2024



Perceptions of community adapting to CSG development: eastern Maranoa, 2016 – 2024

Similar to the Western Downs, there was also an increase in people reporting 'adapting to the change' and a decrease in people reporting 'only just coping' in 2024 compared to 2018 in the eastern Maranoa, as shown in Figure 37. Comparing 2018 to 2024 there was an increase of 19.6% of people reporting 'adapting to the change' and a decrease of 12.4% in reporting of 'only just coping'. In 2024, 84% of participants indicated their community was either adapting to the change or changing into something different but better with no one reporting resisting or not coping to CSG development.

Figure 37 Perceptions of community adapting to CSG development: eastern Maranoa, 2016 - 2024



5.6 Perceptions about CSG development

Perceptions of underlying factors important to acceptance of CSG development: Western Downs and eastern Maranoa, 2024

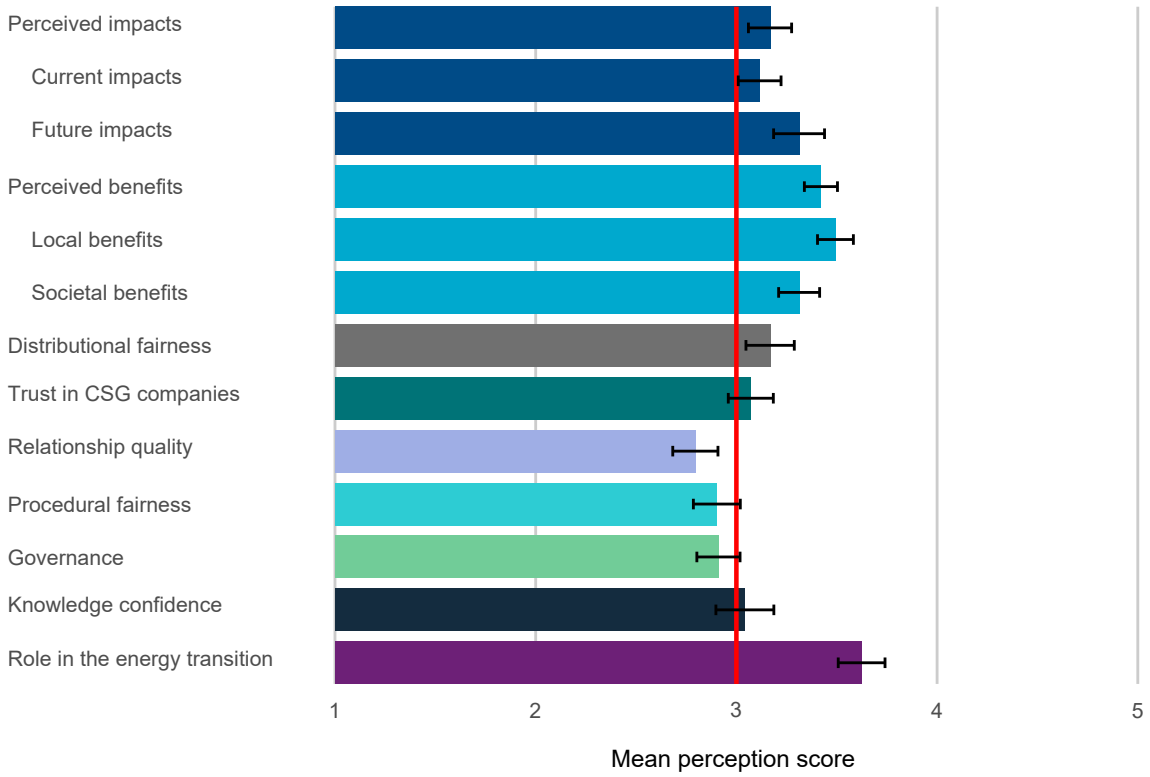
Similar to overall attitudes, people living in the eastern Maranoa tended to have more positive evaluations of CSG in their region compared to people living in the Western Downs. For example, Figure 39 and Figure 40 show people in the eastern Maranoa perceive less impacts, more benefits and give more favourable assessments of governance, trust in CSG companies and distributional fairness. People in the eastern Maranoa also report slightly higher levels of confidence in their own knowledge about CSG compared to the Western Downs. People in Western Downs and eastern Maranoa also agreed, on average, that CSG has an important role to play in the energy transition.

Figure 38 summarises the main points regarding perceptions of the underlying social licence factors. A deeper dive into peoples' concerns about negative impacts and perceptions of risk and benefits are discussed in Section 6.

Figure 38 Summaries of main points regarding underlying social licence factors in 2024

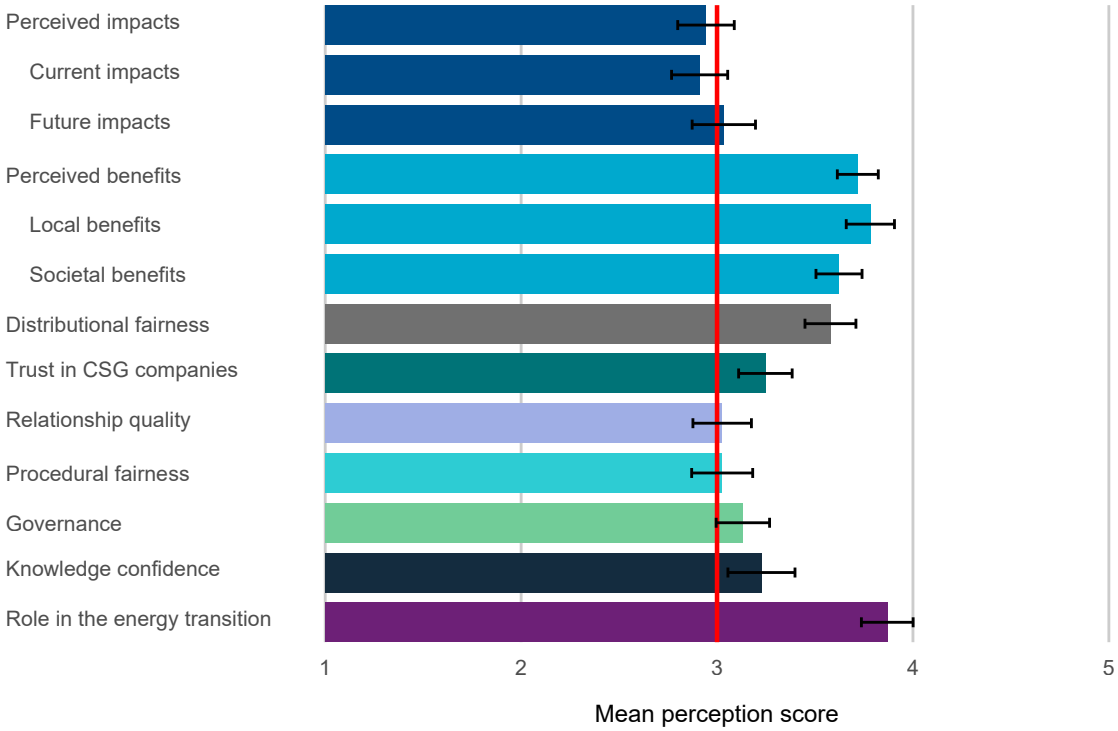
- Concerns about negative impacts were not overly high with residents in the eastern Maranoa indicating they were less concerned than Western Downs on average.
- People were more concerned about future (delayed onset) impacts than current impacts.
- Benefits from CSG development were perceived favourably, with higher perceptions of local benefits compared to societal benefits from gas development.
- Distributional fairness scores were positive, indicating people thought that CSG development provided adequate compensation for landowners and communities on average.
- Trust in CSG companies was modest in the Western Downs, with residents generally holding unfavourable perceptions of how CSG companies engage with locals and opportunities for them to have a say, even though these have improved since 2018.
- Perceptions of governance and confidence in government to hold companies to account through regulation was also limited in the Western Downs, though positive on average in the Eastern Maranoa
- Knowledge confidence about the local CSG industry was not overly high, particularly in the Western Downs
- People on average agreed that CSG had an important role in the energy transition, particularly those in the eastern Maranoa.

Figure 39 Perceptions of underlying factors important to acceptance of CSG development: Western Downs, 2024



Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions. The opposite is true for 'perceived impacts', where higher scores equal less favourable views.

Figure 40 Perceptions of underlying factors important to acceptance of CSG development: eastern Maranoa, 2024

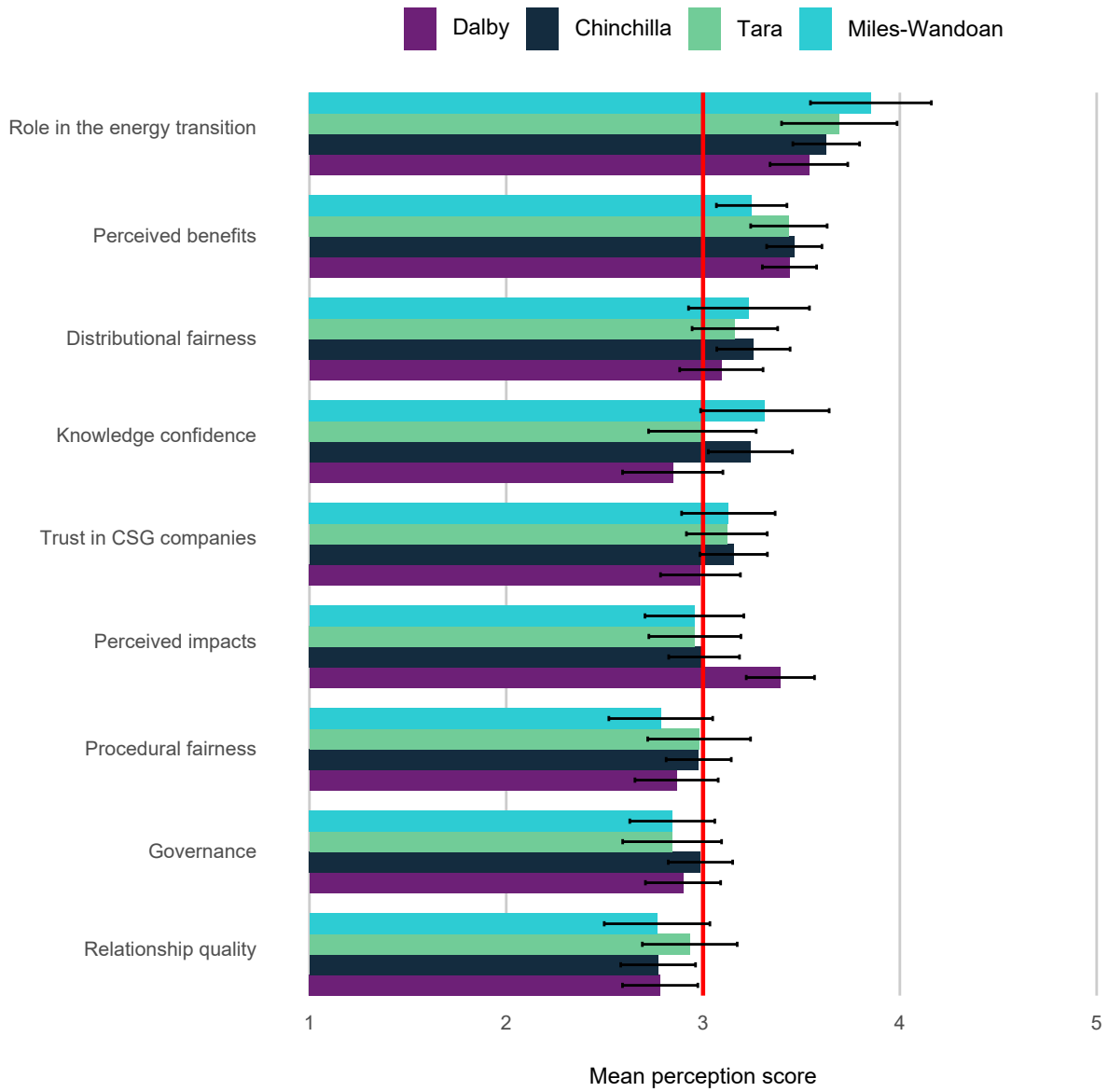


Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions. The opposite is true for 'perceived impacts', where higher scores equal less favourable views.

Differences among subregions of the Western Downs

In 2024, some notable differences were seen in perceptions of CSG development across subregions of the Western Downs, as shown in Figure 41 in descending order of strength. Residents of Dalby, in particular, reported higher levels of perceived impacts from CSG developments compared to all other subregions. This difference was statistically significant. Additionally, Dalby residents had the lowest levels of confidence in their knowledge about CSG compared to all other subregions, but these differences were not statistically significant.

Figure 41 Perceptions of underlying factors important to acceptance of CSG development: Subregions, 2024

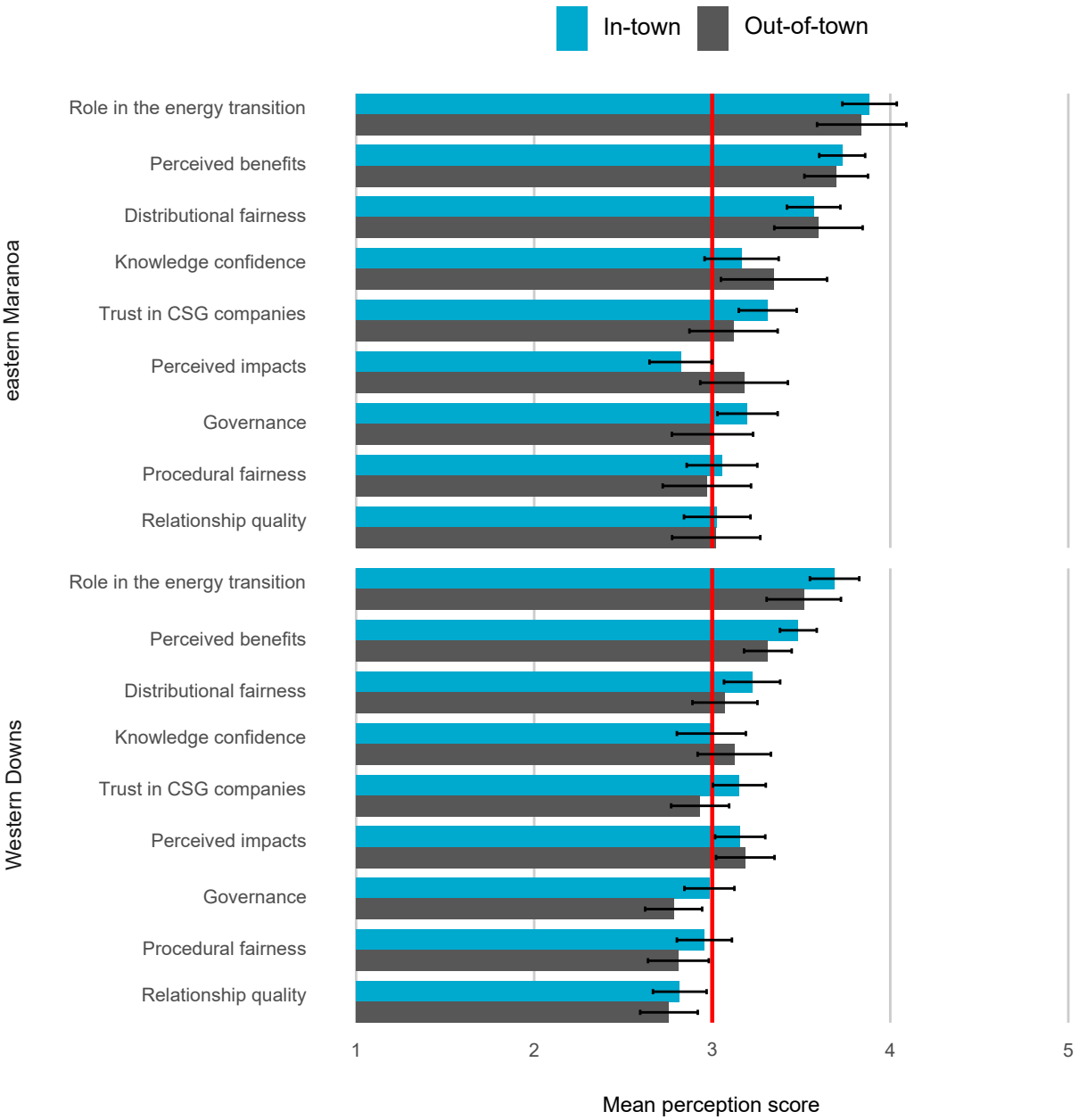


Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions. The opposite is true for 'perceived impacts', where higher scores equal less favourable views.

Differences between In-town and Out-of-town

In 2024 there were relatively small differences between out-of-town and in-town residents in their perceptions about CSG development, in both the Western Downs and the eastern Maranoa. However, Figure 42 shows those living out-of-town in the eastern Maranoa reported statistically higher levels of perceived impacts compared to those living in-town,. The only statistically significant difference between in-town and out-of-town residents in the Western Downs was where in-town residents reported slightly more positive evaluations of the perceived benefits.

Figure 42 Perceptions of underlying factors important to acceptance of CSG development: In-town and Out-of-town, 2024

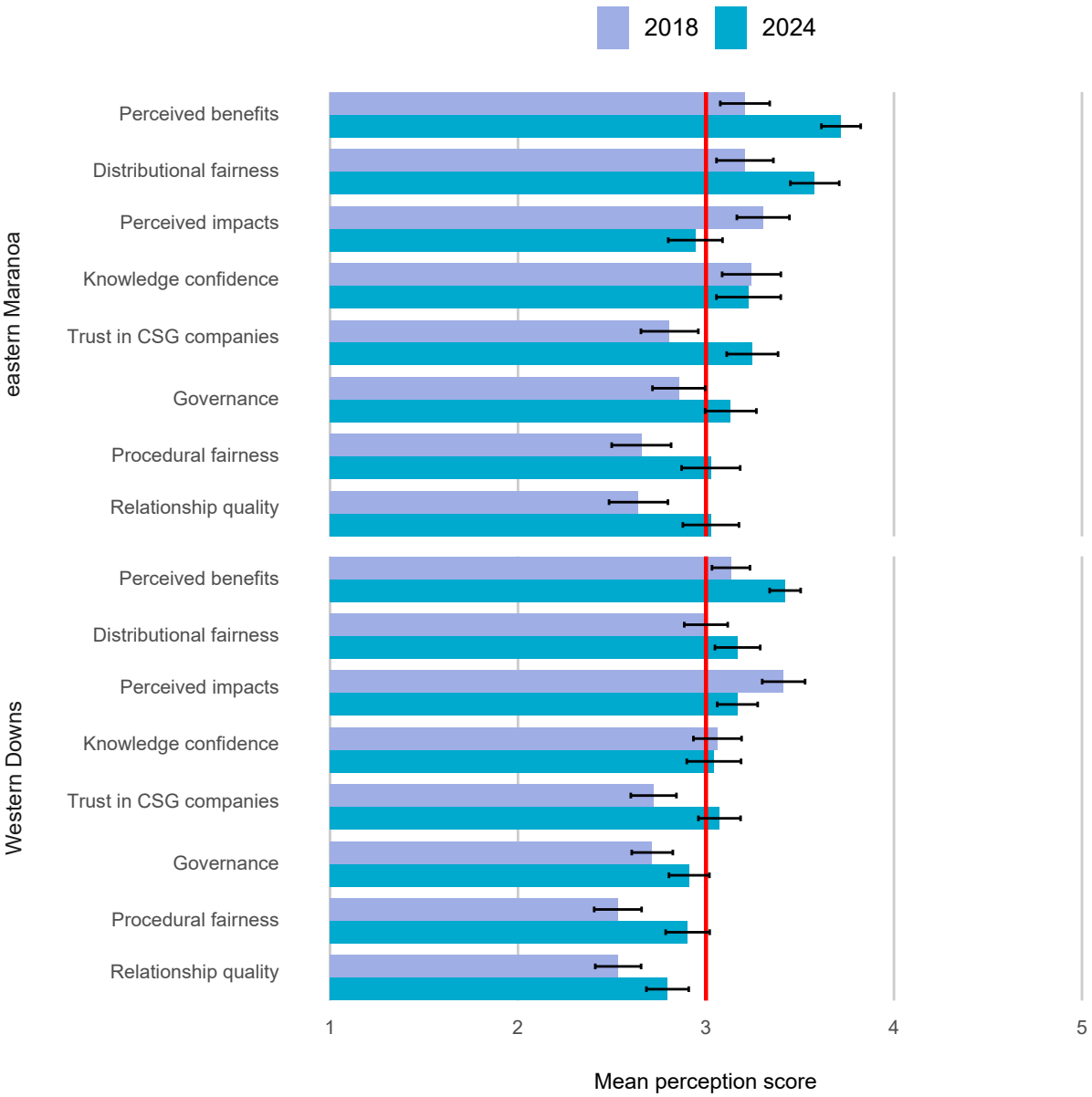


Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions. The opposite is true for perceived impacts where higher scores reflect less favourable views.

Perceptions of underlying factors important to acceptance of CSG development, 2014 – 2024

Perceptions about CSG development in the Western Downs and the eastern Maranoa have become more positive over time. There were, for instance, significantly higher levels of perceived benefits, distributional fairness, trust in CSG companies, governance, procedural fairness and relationship quality in both regions when comparing 2018 to 2024. Figure 43 also shows there were significantly lower levels of perceived impacts in 2024 compared to 2018 in both regions. See Table 23 and Table 24 in Appendix A.9 for the mean values in both regions over time.

Figure 43 Perceptions of underlying factors important to acceptance of CSG development: 2018 – 2024



Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions. The opposite is true for 'perceived impacts', where higher scores equal less favourable views.

6 Deeper dive into the underlying drivers of social acceptance

As introduced in the previous section, perceived impacts and benefits of CSG development help to explain social acceptance and feelings towards CSG. This section helps to unpack some of the beliefs people have about the impacts and benefits of CSG development, how these views vary by region and time, and how the social licence factors come together to predict social acceptance and feelings toward CSG development.

6.1 Perceived impacts

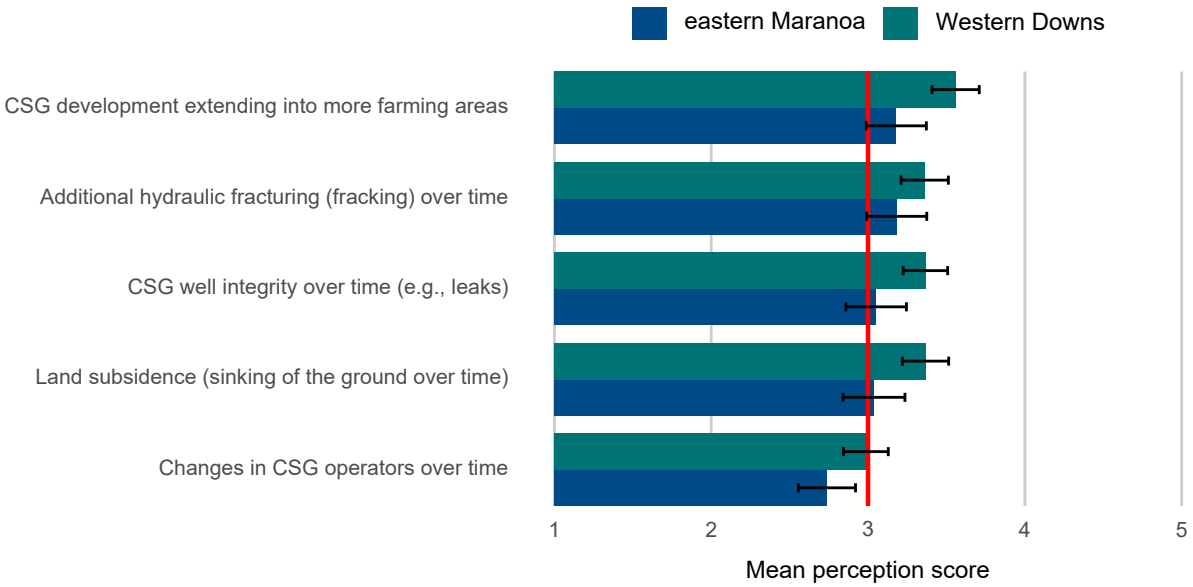
In 2024, residents of the Western Downs and eastern Maranoa were most concerned about the cost of housing, water contamination, and the depletion of underground water associated with CSG development. These top-ranking concerns showed little variation between the two regions. In contrast, the lower rated perceived impacts revealed the greatest differences, as shown in Figure 44. For example, people in the Western Downs were more concerned about risks such as fire, dust and noise pollution, air contamination, health impacts, and declines in farm property values compared to those in the eastern Maranoa.

Figure 44 Perceived direct impacts about CSG development: Western Downs and eastern Maranoa, 2024

Note: 1 = lowest and 5 = highest perception; scores < 3 indicate favourable perceptions, scores > 3 indicate unfavourable perceptions.

When considering delayed onset impacts of CSG development in 2024, people in the Western Downs were more concerned about these impacts compared to people in the eastern Maranoa. Among the delayed impacts assessed in Figure 45, the greatest regional difference was observed in concerns about CSG development extending into more farming areas, with residents of the Western Downs expressing higher levels of concern.

Figure 45 Perceived delayed onset impacts about CSG development: Western Downs and eastern Maranoa, 2024

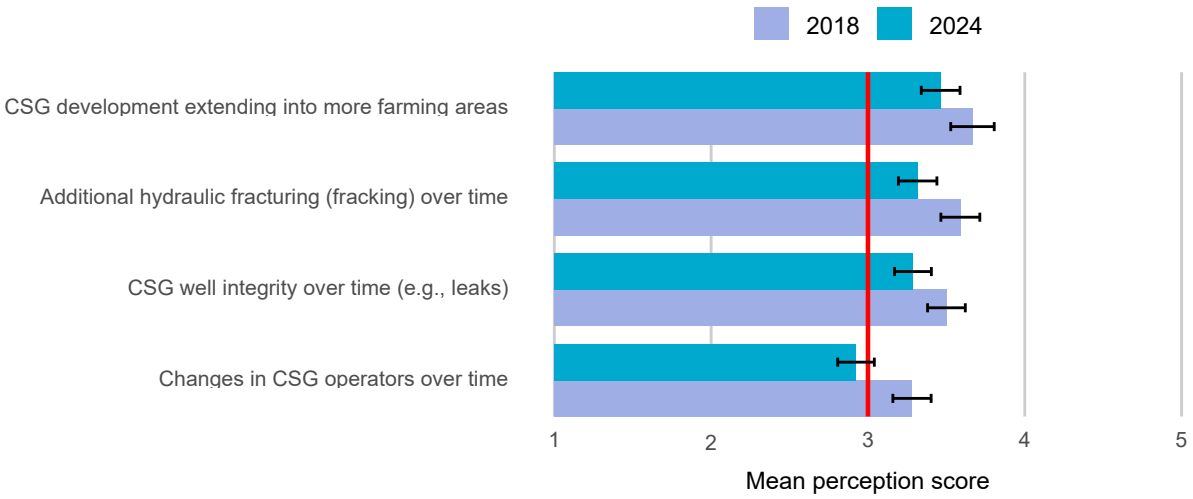


Note: 1 = lowest and 5 = highest perception; scores < 3 indicate favourable perceptions, scores > 3 indicate unfavourable perceptions.

Perceived impacts over time

Across almost all the perceived impacts assessed, the average level of concern in the Western Downs decreased from 2018 to 2024. Figure 46 shows among delayed-onset impacts, the greatest change was observed in concerns about changes in CSG operators, with significantly less concern expressed in 2024 compared to 2018. In contrast, concerns about CSG developments extending into more farming areas showed minimal change between these two time points.

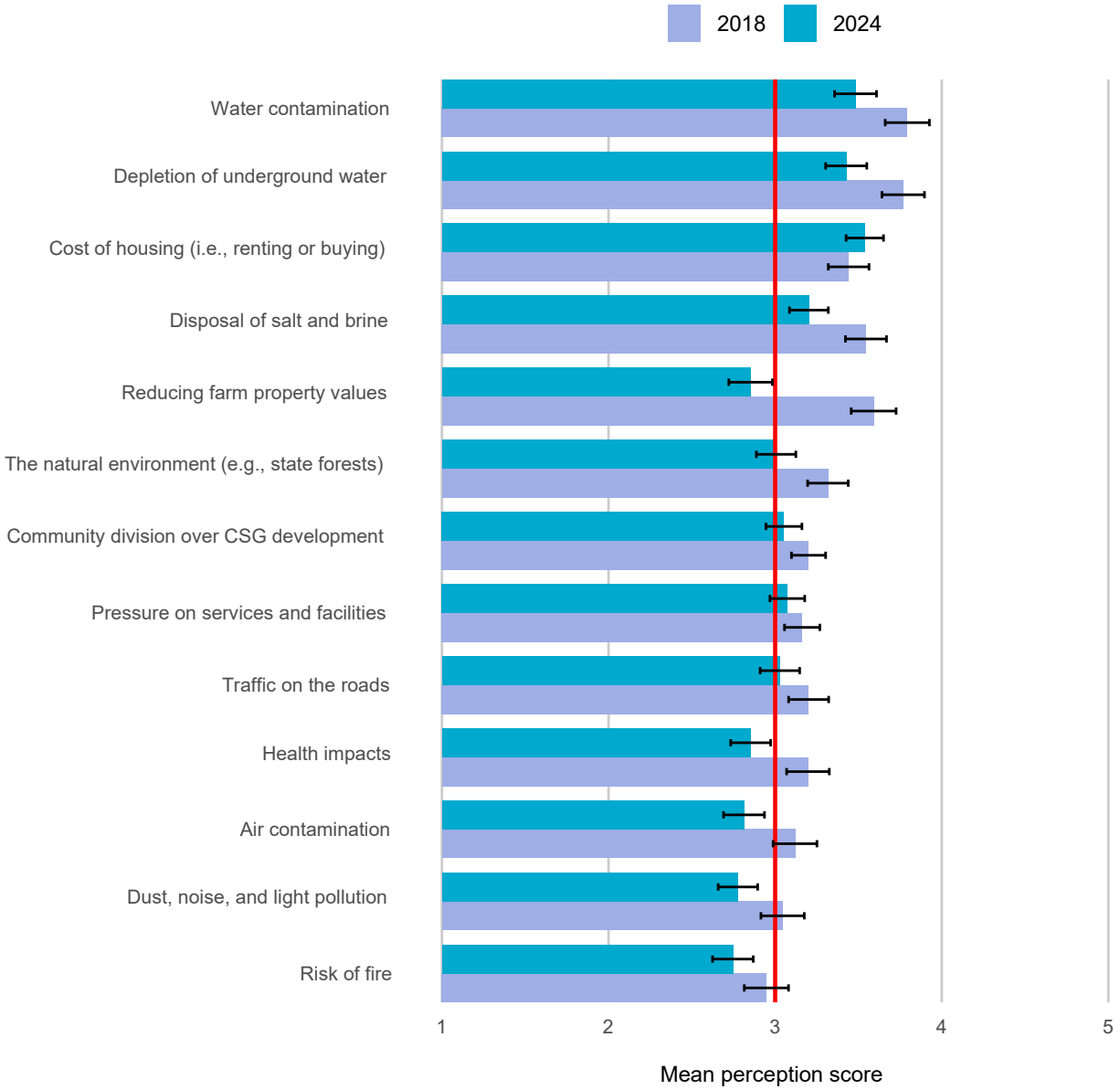
Figure 46 Perceived delayed onset impacts about CSG development: Western Downs from 2018 to 2024



Note: 1 = lowest and 5 = highest perception; scores < 3 indicate favourable perceptions, scores > 3 indicate unfavourable perceptions. Concerns about subsidence was only measured in 2024.

Considering direct impacts, the greatest change observed over time in the Western Downs was the lower perceived impact of CSG on farm property prices. This dropped from a mean score of 3.61 in 2018 to 2.93 in 2024. Figure 47 shows the only perceived impact that slightly increased over time was the concern related to cost of housing. With declining concerns about water, housing costs emerged as the highest concern in 2024. This is likely explained by the historically high price of housing in 2024 across the country.

Figure 47 Perceived direct impacts about CSG development: Western Downs from 2018 to 2024



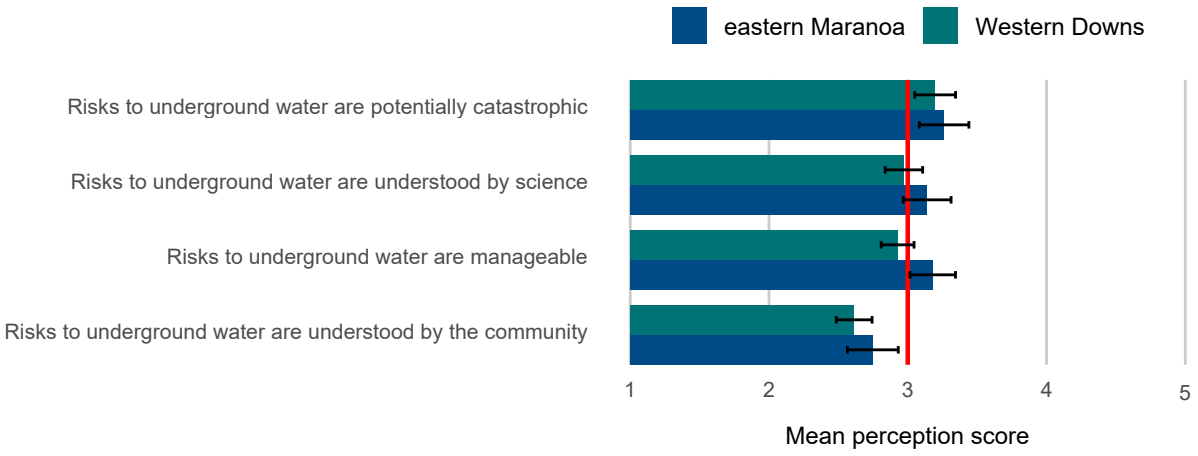
Note: 1 = lowest and 5 = highest perception; scores < 3 indicate favourable perceptions, scores > 3 indicate unfavourable perceptions.

6.2 Perceptions of groundwater risk manageability

People living in areas exposed to CSG development have raised concerns about potential impacts on groundwater (Walton and McCrea, 2018) for many years. For instance, people have expressed concerns about water contamination due to drilling and potential drawdowns due to increased water demands for CSG extraction.

Perceptions of underground water risk management became significantly more favourable in the eastern Maranoa between 2018 and 2024, making them statistically more positive than those in the Western Downs by 2024 (Figure 48). Otherwise, perceptions of risk to underground water stayed somewhat consistent between 2018 and 2014, showing moderate levels of concern. However, residents in both the Western Downs and eastern Maranoa, particularly farmers, felt that the broader community lacked a good understanding of underground water risks.

Figure 48 Perceptions of risk to groundwater from CSG activities: Western Downs and eastern Maranoa, 2024

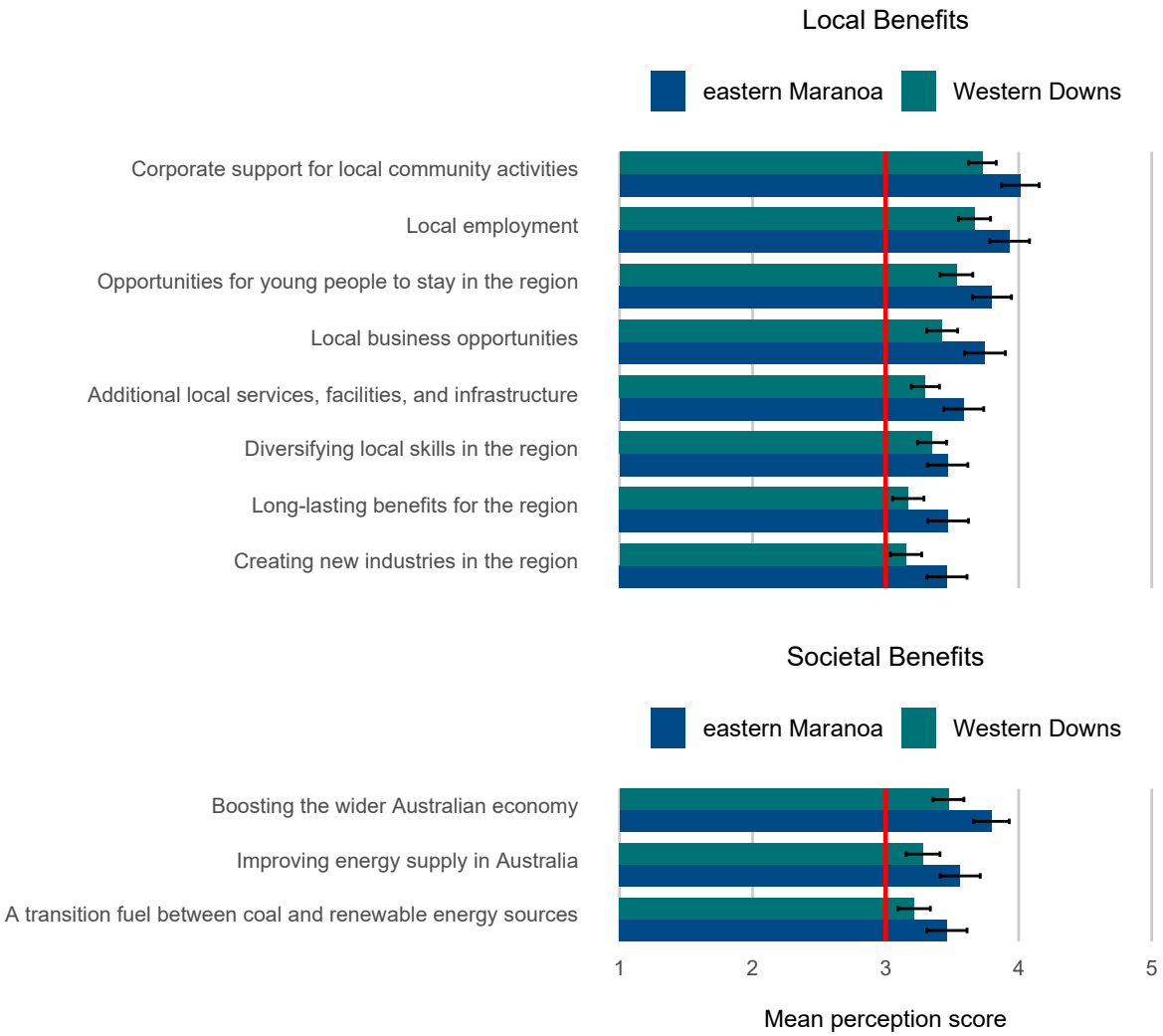


Note: 1 = lowest and 5 = highest perception; scores < 3 indicate less agreement, scores > 3 indicate more agreement.

6.3 Perceived benefits

In 2024, people living in the eastern Maranoa reported more benefits from CSG development compared to those living in the Western Downs as shown in Figure 49. The differences in average perceived benefits when comparing the two regions were similar across all types of benefits.

Figure 49 Perceived benefits about CSG development: Western Downs and eastern Maranoa, 2024

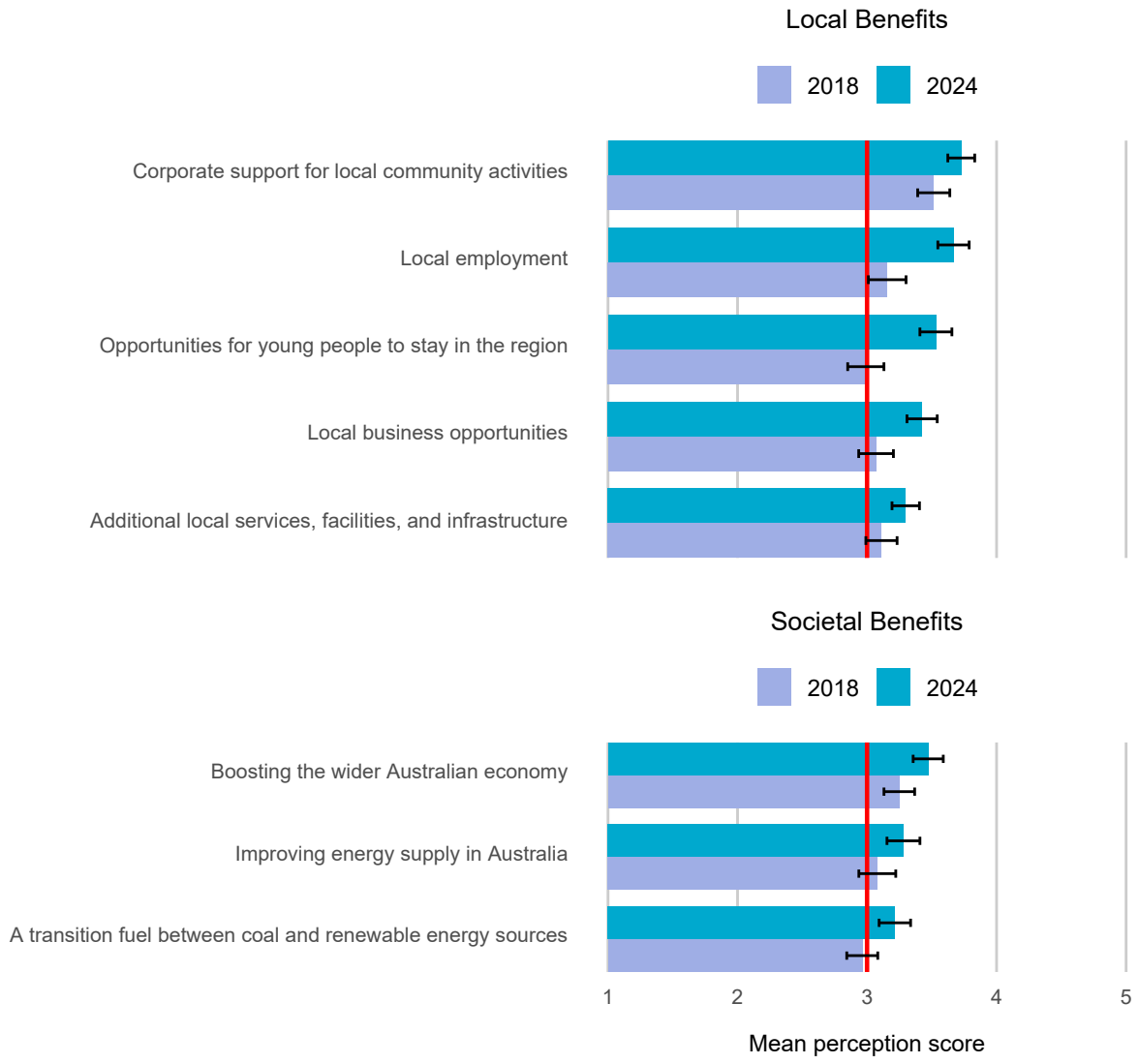


Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

Perceived benefits over time

Like perceived impacts, there has also been a change of views over time regarding the perceived benefits of CSG development in the Western Downs. For all the perceived benefits measured, average evaluations were more positive in 2024 compared to 2018. Figure 50 shows the most substantial shifts were seen for the perceived benefits of CSG for local employment and opportunities for young people to stay in the region.

Figure 50 Perceived benefits about CSG development: Western Downs from 2018 to 2024



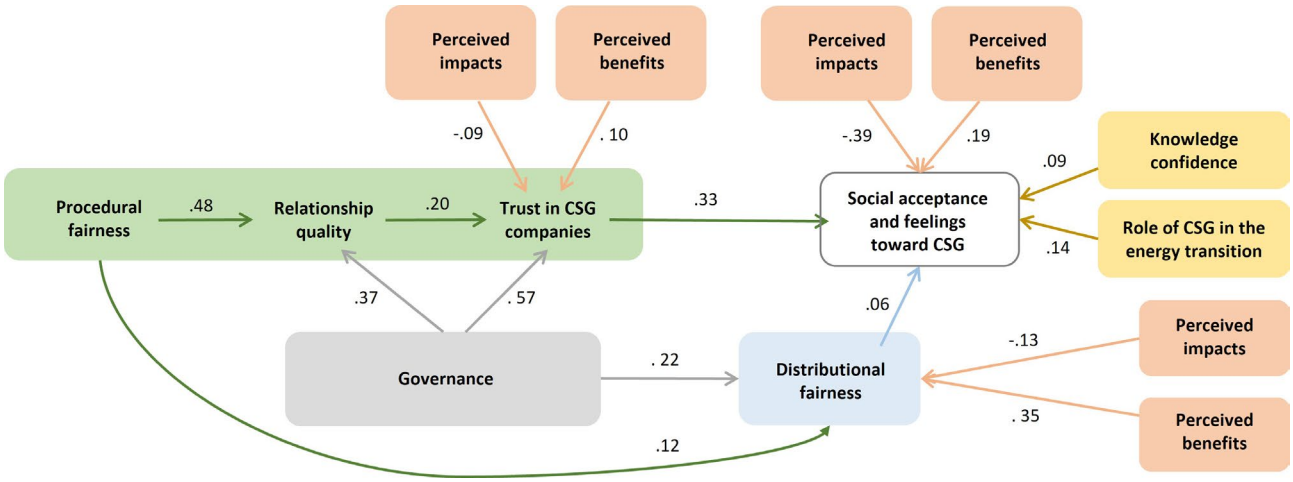
Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.

6.4 Modelling social licence to operate

A social license path model was developed to show how the social licence factors come together to predict social acceptance and feelings toward CSG development in the residents' region. Social acceptance and feelings were combined into one variable by taking the average between the two. The model incorporates factors such as trust in the industry, perceptions of distributional fairness, and their underlying drivers (e.g., perceived impacts, benefits, and governance of the industry). This model is shown graphically in Figure 51.

The arrows represent predictors of different dependent variables, and the coefficients beside the arrows reflect their relative importance. The higher the coefficient the more important the variable. This model explains approximately 70% of the variation in both trust in CSG companies and social acceptance and feelings toward CSG development in the region. Approximately 65% of the variation in perceived relationship quality and 45% of variation in perceived distributional fairness is also explained by this model. Additional model statistics can be found in Appendix A.4.

Figure 51 Social licence path model



Notes: The size of beta coefficients indicates the relative strength of each predictor and the sign of each indicates a positive or negative relationship with the dependant variable.

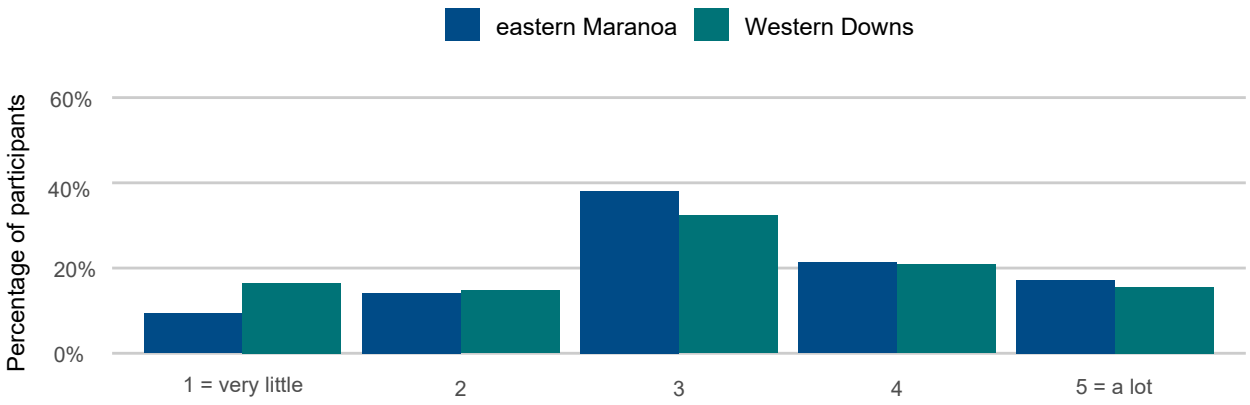
Some of the predictors in this model are of note. Good governance strongly supports both the relationship quality with and trust in CSG companies, reflecting an important role for regulatory and planning bodies. Perceived benefits is more important for perceptions of distributional fairness, while perceived impacts more directly predict social acceptance and feelings toward CSG development. Trust is the other main predictor of social acceptance and feelings toward CSG development, based on good governance and relationship qualities. Knowledge confidence and belief in the importance of CSG in the energy transition also act as additional factors shaping social acceptance towards CSG.

7 Knowledge, information, and previous experience

7.1 Self-rated knowledge

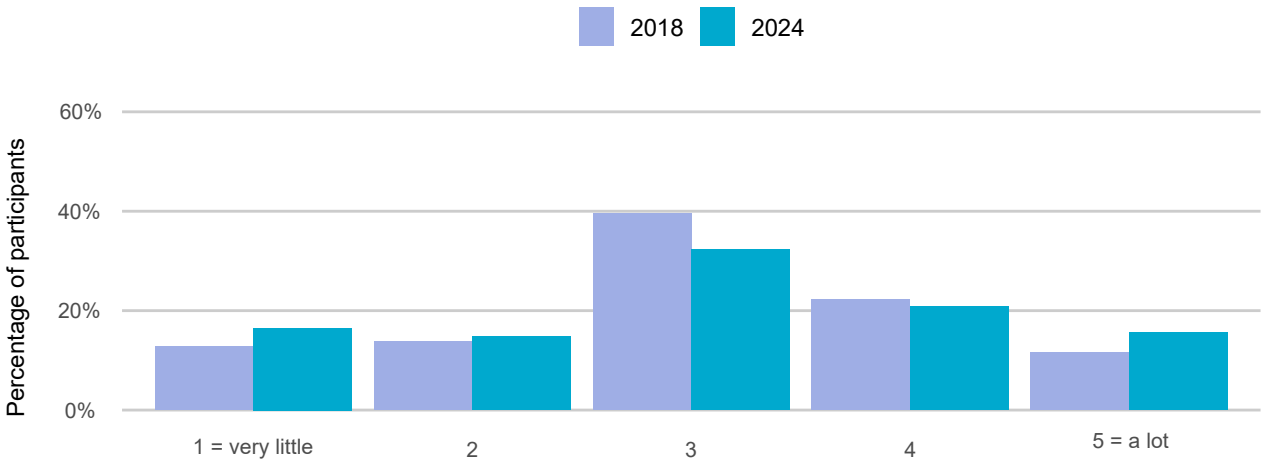
Participants were asked to rate their perceived level of knowledge about CSG development in their region. As shown in Figure 52, perceived knowledge was quite normally distributed in the Western Downs and the eastern Maranoa. In other words, a relatively high proportion of people expressed moderate levels of knowledge, and less people reported very high or very low levels of knowledge.

Figure 52 Self-rated knowledge about CSG development: Western downs and eastern Maranoa, 2024



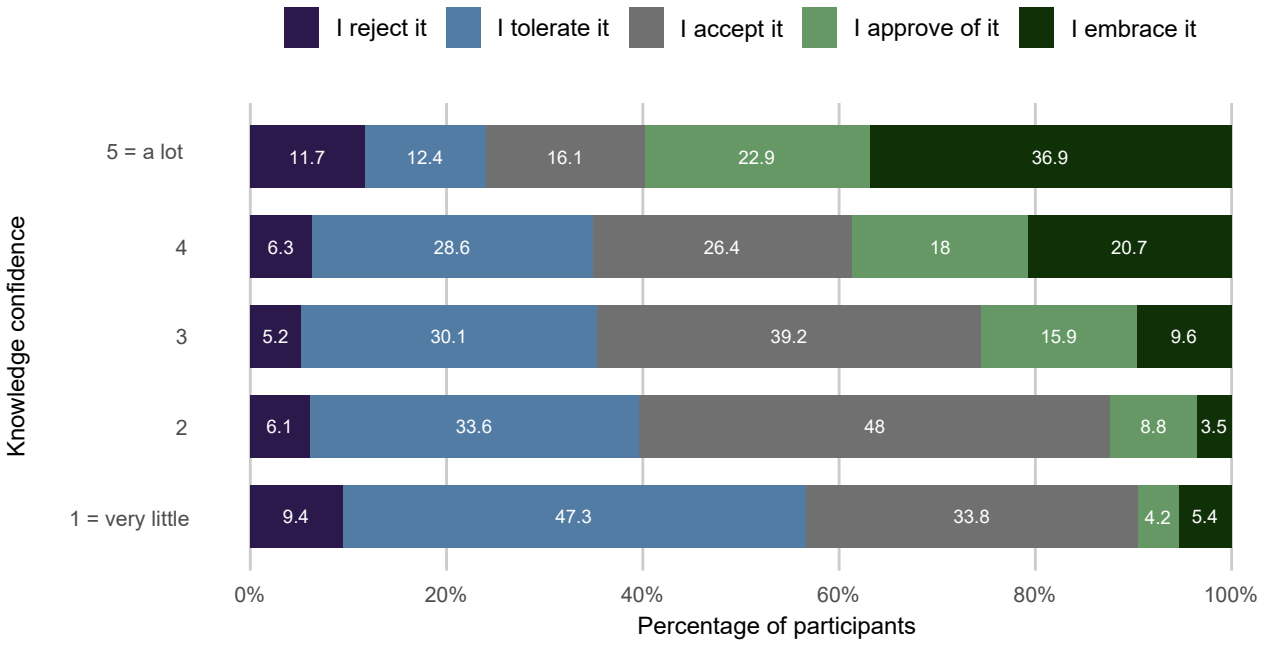
As shown in Figure 53, perceived levels of knowledge about CSG development remained relatively constant over time in the Western Downs. Although there was a slight increase in proportion of people who report they have ‘a lot’ of knowledge and ‘very little’ knowledge, this was not statistically significant. Similarly, there was no statistically significant change over time in the eastern Maranoa.

Figure 53 Self-rated knowledge about CSG development: Western Downs from 2018 to 2024



Knowledge confidence is also associated with acceptance of local CSG development. Figure 54, which combines Western Downs and eastern Maranoa responses, shows that those who say they have ‘a lot’ of knowledge about CSG also tend to be more supportive of CSG development, with close to 60% reporting either ‘approve’ or ‘embrace’ attitudes. Those who have ‘very little’ knowledge are much less supportive, mostly tolerating it. However, there is also a relatively high proportion of people who ‘reject’ CSG development in the high knowledge confidence group, which suggests that knowledge confidence is associated with both more positive and more negative attitudes.

Figure 54 Association between knowledge confidence and CSG attitudes in 2024

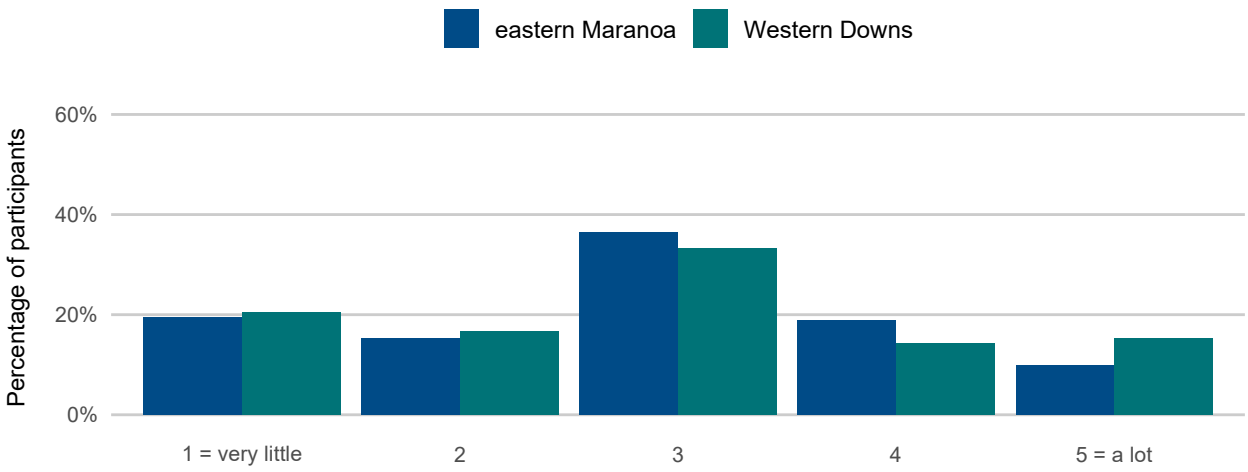


7.2 Information need and information sources

Need for more information

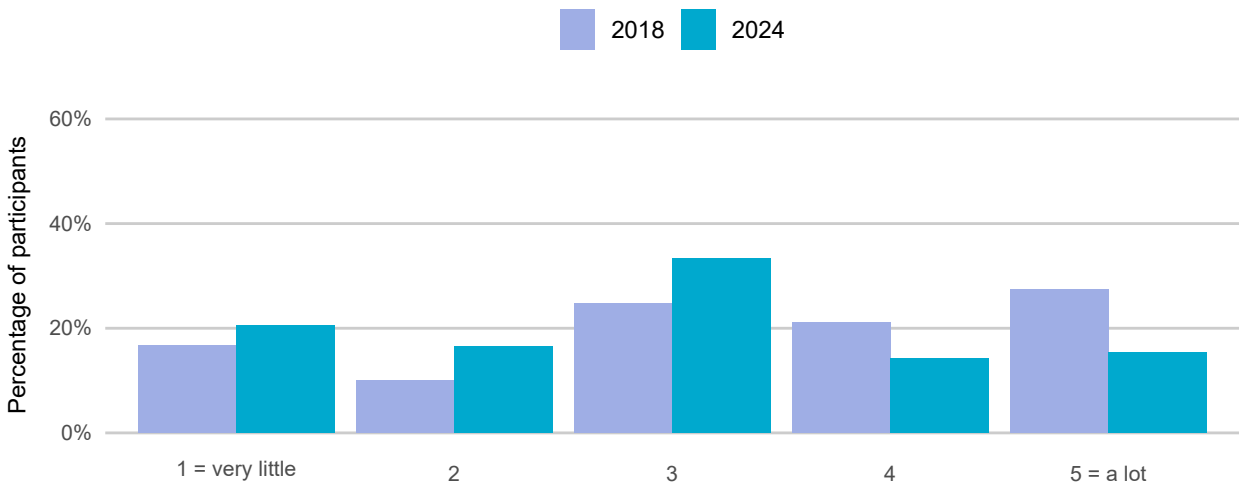
Participants were also asked to indicate how much additional information they needed about CSG developments in their regions. Similar to the perceived levels of knowledge, the responses to this question followed a fairly normal distribution as shown in Figure 55. However, there was a slightly higher percentage at the lower end of the distribution with approximately 20% of residents in the Western Downs and the eastern Maranoa who reported needing "very little" information about CSG developments in their region.

Figure 55 Need for more information about the local CSG industry: Western Downs and eastern Maranoa, 2024



Need for information did change over time in the Western Downs when comparing views in 2018 to 2024. As shown in Figure 56, the distribution has shifted more to the left in 2024 compared to 2018. In other words, a higher proportion of people in 2024 reported they need less, and a lower proportion reported they need more information about CSG developments compared to 2018.

Figure 56 Need for more information about the local CSG industry: Western Downs from 2018 to 2024



Participants were asked in an open-text question to share the main topics of information they would like to know more about. Requests for additional information included three main topics: environmental impacts, economic and community impacts, and health and safety aspects.

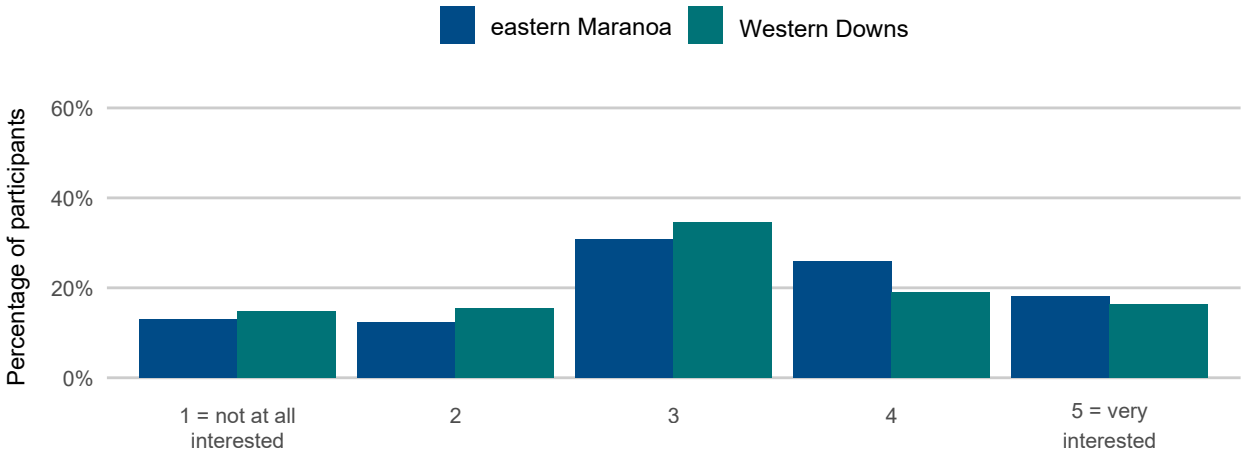
Participants also suggested improvements in approaches to communication, and these differed slightly based on the amount of additional information needed.

- People who needed 'Very Little to Some' information suggested existing approaches should be maintained with requests for increased details about specific activities and plans.
- People who needed 'More to a Lot More' information called for improvement in communication, including more community involvement and greater transparency and honesty in communication.

Interest in CSG development

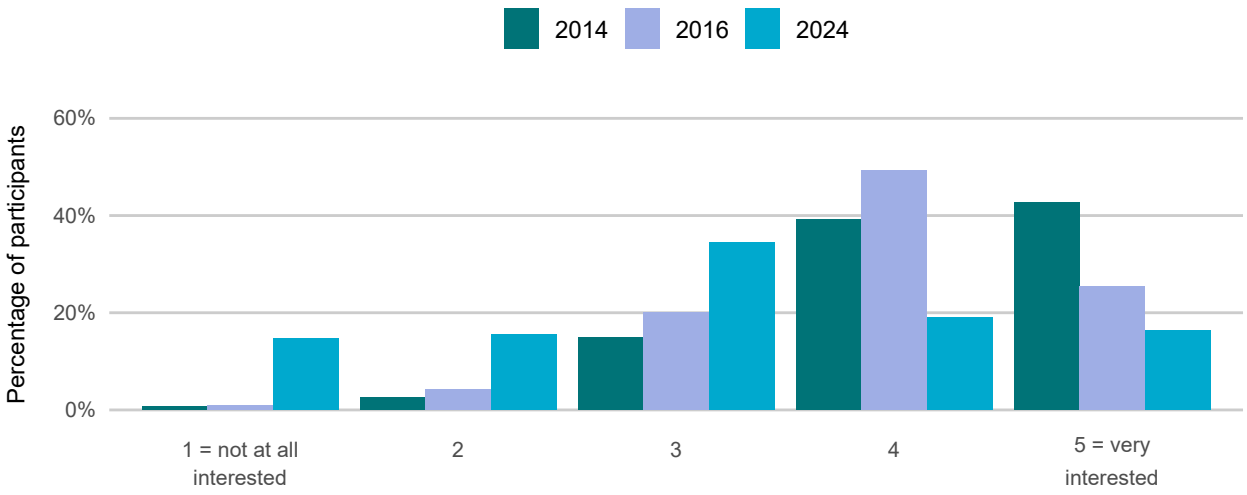
Next, the survey asked about people's interest in the local CSG industry. Like the previous two questions, the highest proportion of people were in the middle (i.e., reporting moderate interest) and small proportions were at the extremes as shown in Figure 57. That is, less than 20% of people in both the Western Downs and the eastern Maranoa reported they were 'not at all interested' or 'very interested'.

Figure 57 Interest in the local CSG industry: Western downs and eastern Maranoa, 2024



The survey responses show that interest in the CSG industry in the Western Downs has changed quite substantially over time. As Figure 58 shows, the proportion of people reporting they are 'very interested' has dropped from 42.8% in 2014 to 16.5% in 2024. There was also a relatively large increase in the percentage of people reporting they were 'not at all interested': from 0.7% in 2014 to 14.7% in 2024.

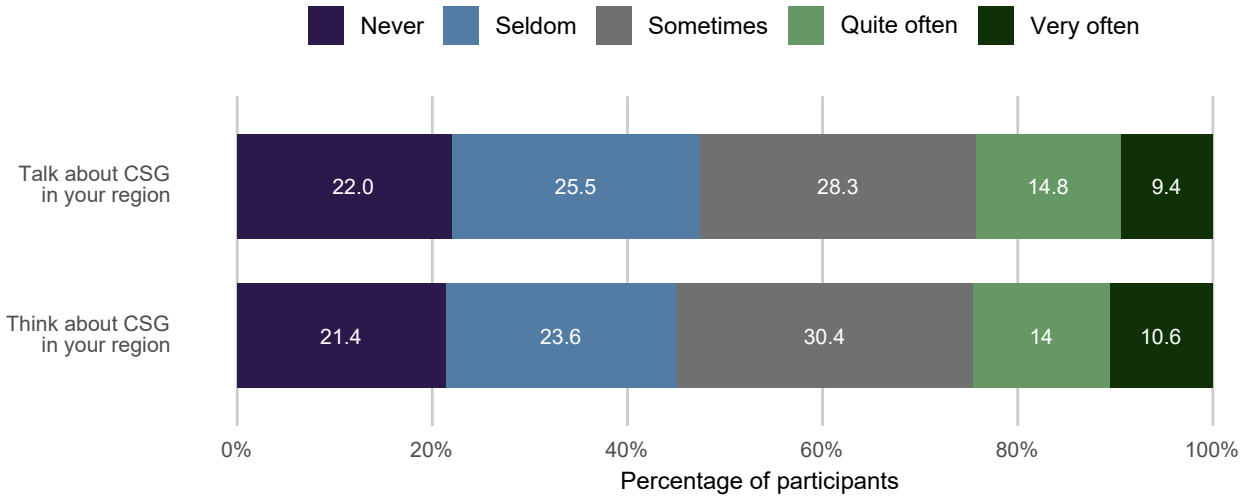
Figure 58 Interest in the local CSG industry: Western downs from 2014 to 2024



Frequency of thoughts about CSG

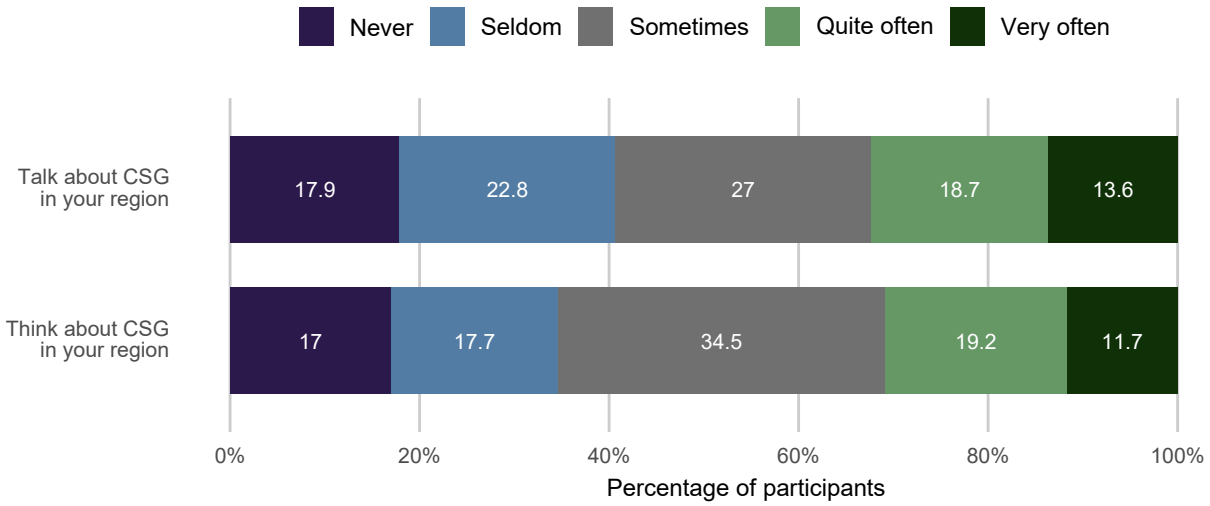
The survey also measured the frequency in which people think and talk about CSG in their regions. Figure 59 shows a majority of people in the Western Downs reported they at least 'sometimes' think and talk about CSG in their region. However, 22% of people also reported they 'never' talk about and 21.4% said they 'never' think about CSG in their region.

Figure 59 Frequency of thinking and talking about CSG: Western Downs, 2024



A similar pattern of responses was observed in the eastern Maranoa. However, there was a slightly higher proportion of people in the eastern Maranoa reporting they think and talk about CSG 'quite often' or 'very often' compared to the Western Downs, as shown in Figure 60. Similarly, there was a slightly lower proportion of people reporting they 'never' or 'seldom' talk about CSG compared to people in the Western Downs.

Figure 60 Frequency of thinking and talking about CSG: eastern Maranoa, 2024

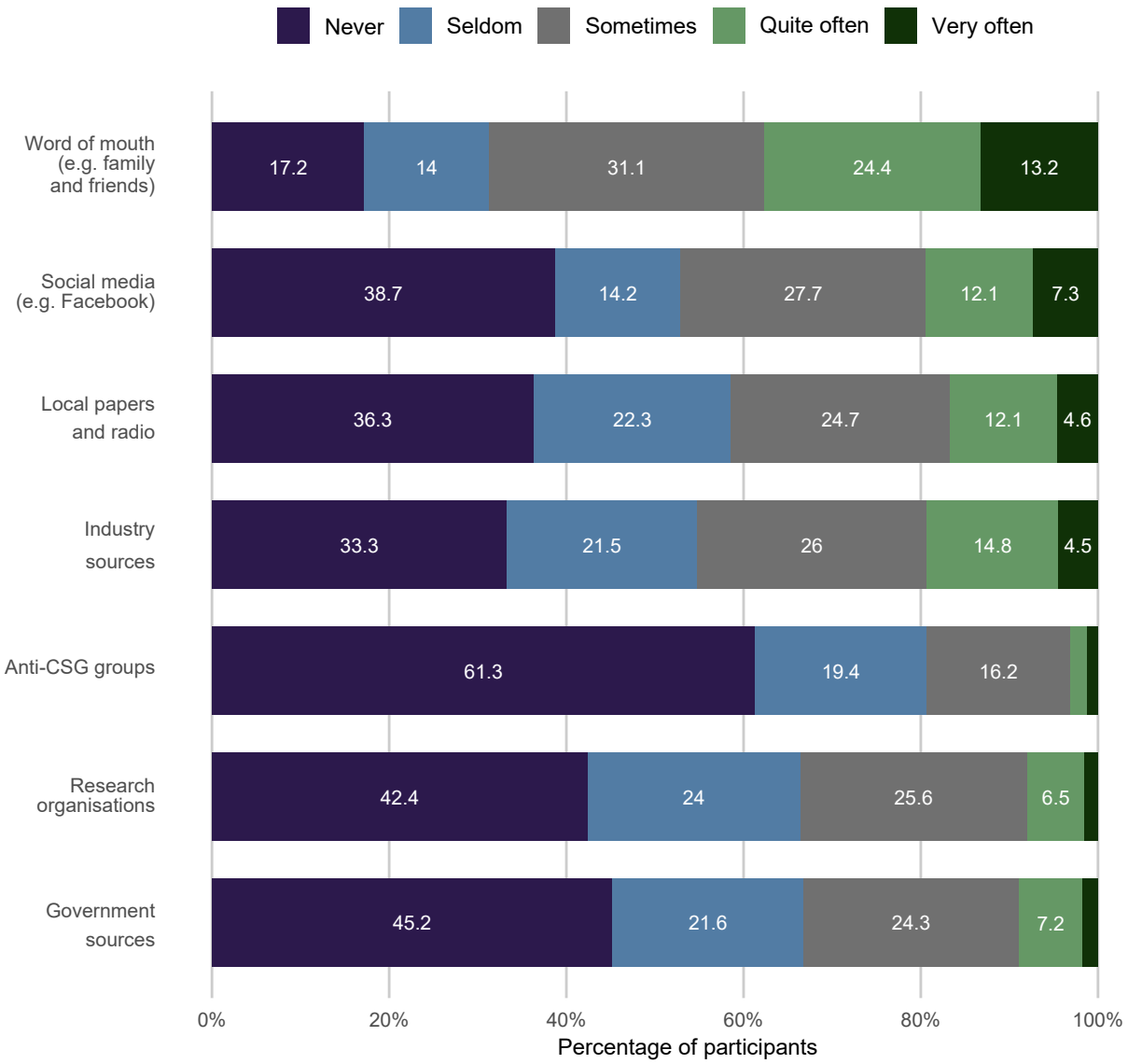


Sources of information

Finally, participants were asked to report how often they used various sources for information about the local CSG industry. As shown in Figure 61, one of the most commonly used sources of information for people in the Western Downs was word of mouth, with 68.7% of people using this source at least 'sometimes'.

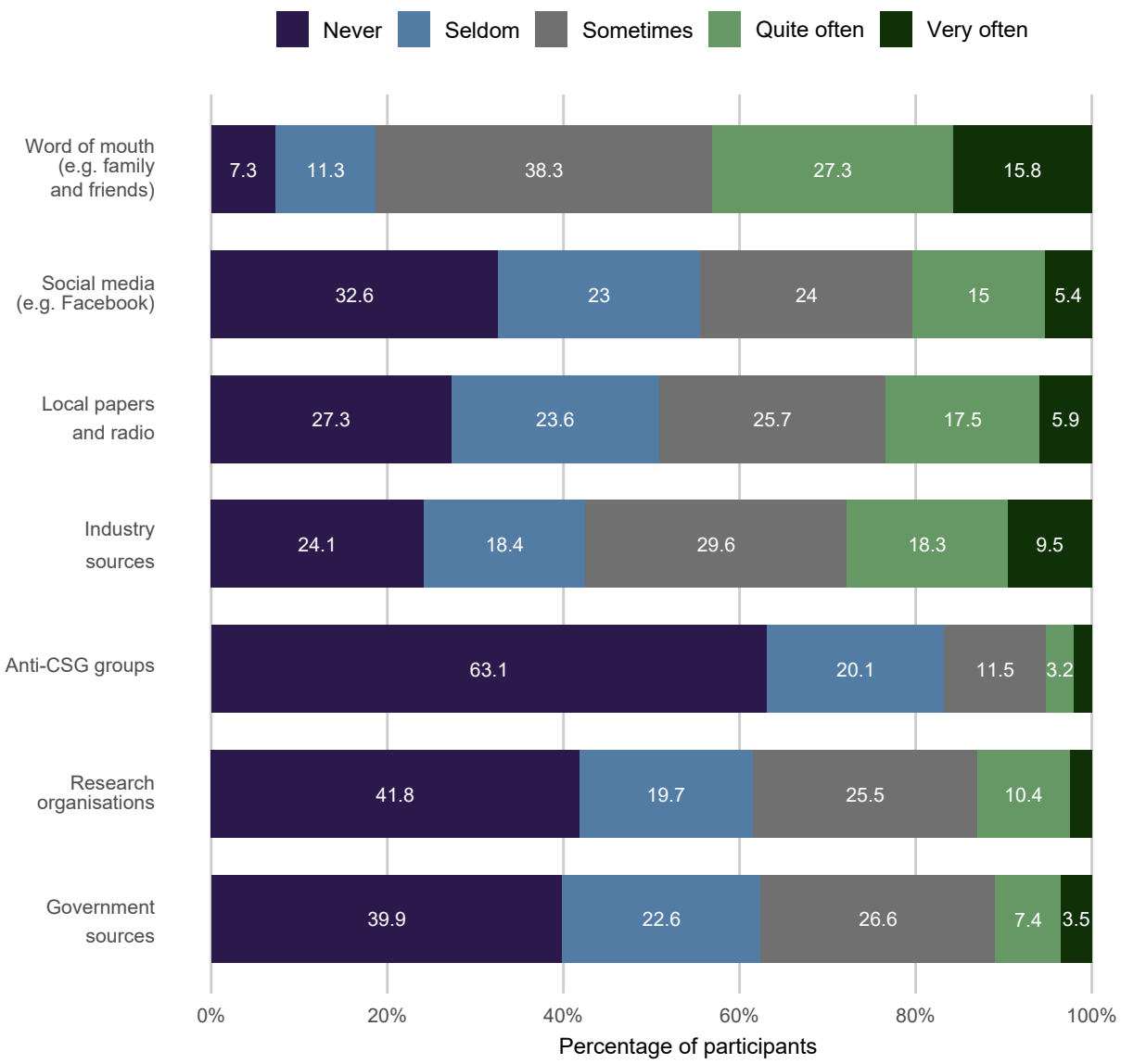
A majority of people 'never' or 'seldom' (between 66.4% and 66.8%) used more formal sources like research organisations or government sources. Most people in the Western Downs (61.3%) reported that they 'never' get information from Anti-CSG groups.

Figure 61 Frequency of seeking information from different sources: Western Downs, 2024



A similar pattern of responses regarding information seeking behaviour was observed in the eastern Maranoa as shown in Figure 62. Like in the Western Downs, many people reported relying more on friends and family for their information compared to more formal sources. However, compared to the Westen Downs, there was more reliance on industry sources for information in the eastern Maranoa, with 57.4% reporting they used this source at least sometimes (compared to 45.3% in the Western Downs).

Figure 62 Frequency of seeking information from different sources: eastern Maranoa, 2024



In response to the open-text question about information needs, word-of-mouth from personal contacts was the key information source for participants who needed 'Very Little to Some' information going forward. Personal contacts were commonly described as a family member working in the industry or knowing a farmer who has experience with the industry. These personal contacts provided mostly positive accounts of the industry, though, negative accounts were also shared, particularly of farmers' experiences. Whereas, participants who reported to need ''More to a Lot More' information highlighted the importance of two-way communication and being heard, especially two-way communication with local community and farmers.

Nothing [no more information needed], because CSG is totally embedded in the population, so they keep us totally up to date (721)
I know several landowners have had a lot of trouble with gas companies (358)
There is no real conversation happening. Things go wrong (767)
Community feedback. Have to take the community along with them (161)

8 Farm ownership and active CSG leases

Participants who owned farms of 40 hectares or more (100+ acres) were asked if any CSG activity had occurred on their farm, this included negotiations, exploration, or production of CSG. Figure 64 shows that in 2024, attitudes and perceptions of CSG development were similar for farmers with and without CSG activity on their farms across many of the social licence drivers. However, farmers with CSG activity had more confidence in their knowledge about CSG in the region and higher agreement with CSG playing an important role in the energy transition. They were also much more interested in the CSG discussion.

In 2024, the perceived impacts and benefits of CSG activities were similar for farmers, regardless of whether they had CSG activities on their land. This contrasts with 2018 when perceived impacts outweighed perceived benefits for farmers, both with and without CSG well activity.

Perceptions of relationship quality, procedural fairness, trust in CSG companies, and the governance of the industry were still generally unfavourable in 2024. However, there was a notable improvement in these perceptions between 2018 to 2024 for farmers with CSG activity. These differences are detailed in Appendix A.9. At the same time, these farmers need for additional information about the local CSG industry decreased markedly.

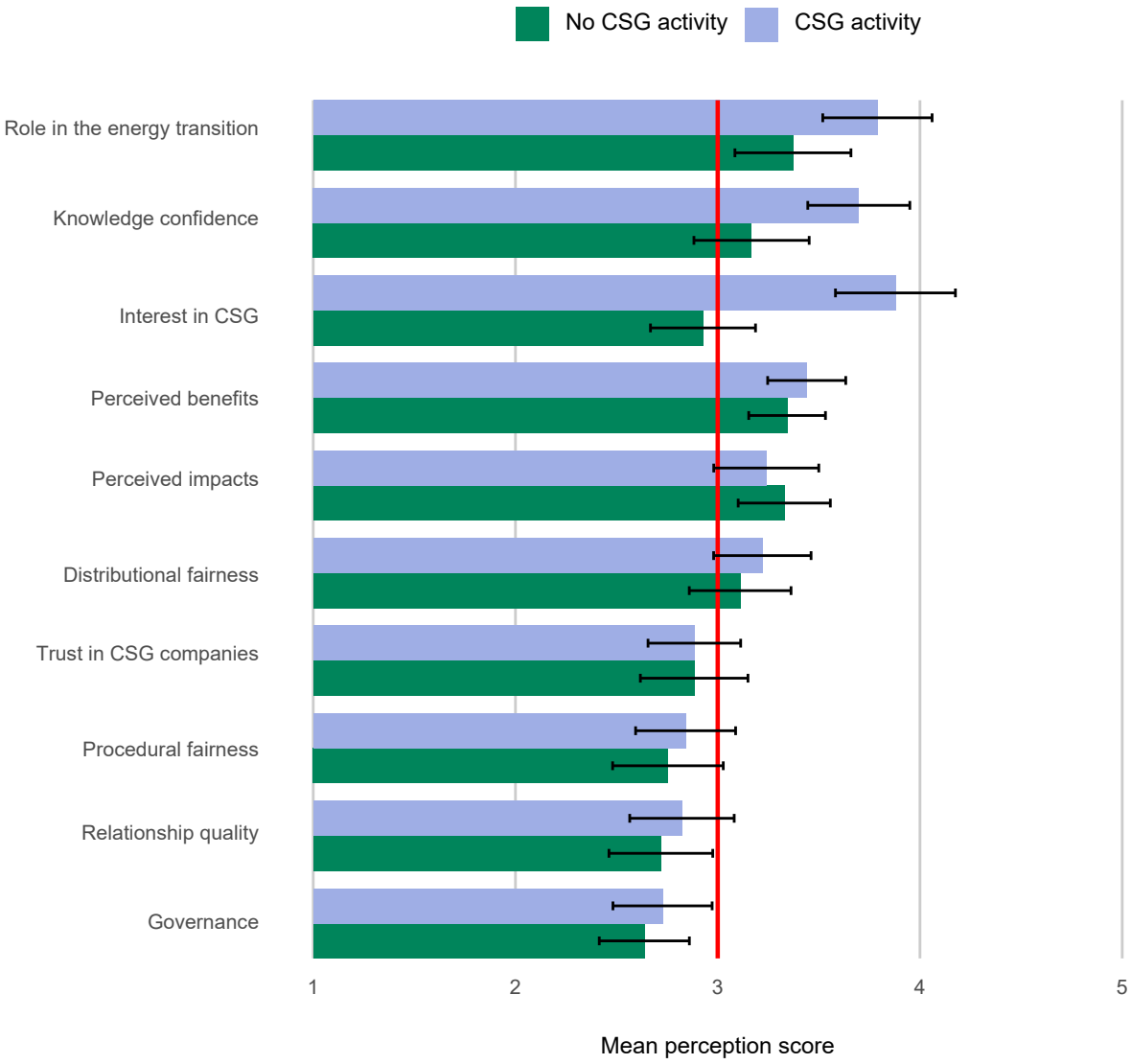
These more favourable attitudes toward CSG developments reported by farmers with CSG activity in 2024 were also reflected in improved satisfaction with dealings with CSG companies, shifting from less than satisfactory on average (2.87 on a 1 to 5 scale) in 2018 to more satisfactory in 2024 (3.18). In 2024, approximately 44% of farmers with CSG activity on their land were satisfied or very satisfied with their dealings. Another 27% were more neutral (neither satisfied nor dissatisfied), while 29% were either somewhat or very dissatisfied with their dealings.

Farmers with CSG activity were also asked in an open-text question to share suggestions for improving dealings with CSG companies. Figure 63 shows five main points identified in the open-text responses.

Figure 63 Summary of main suggestions from farmers with CSG activity for improving dealings with CSG companies

1. **Honesty and transparency in dealings.** Many participants emphasised the need for CSG companies to be more honest and transparent in their dealings. For example, being upfront about their activities, providing accurate information, and not misleading landowners.
2. **Quality and quantity of communication.** Participants also frequently expressed the need for better and more frequent communication from CSG companies. For example, notifying landowners about upcoming activities and maintaining open lines of communication.
3. **Fairness of compensation.** Some participants emphasised the need for fairer compensation for the disruption caused by CSG activities such as land use, damage, and other impacts.
4. **Respect for landowners.** Some participants emphasised respecting the rights and concerns of landowners, including addressing and acknowledging their needs and preferences
5. **Maintenance and follow-up.** Some participants highlighted the need for better maintenance of infrastructure and following up on issues e.g., maintaining gas pipelines and addressing problems promptly.

Figure 64 Attitudes and perceptions of CSG development: Farmers with and without CSG activity, 2024

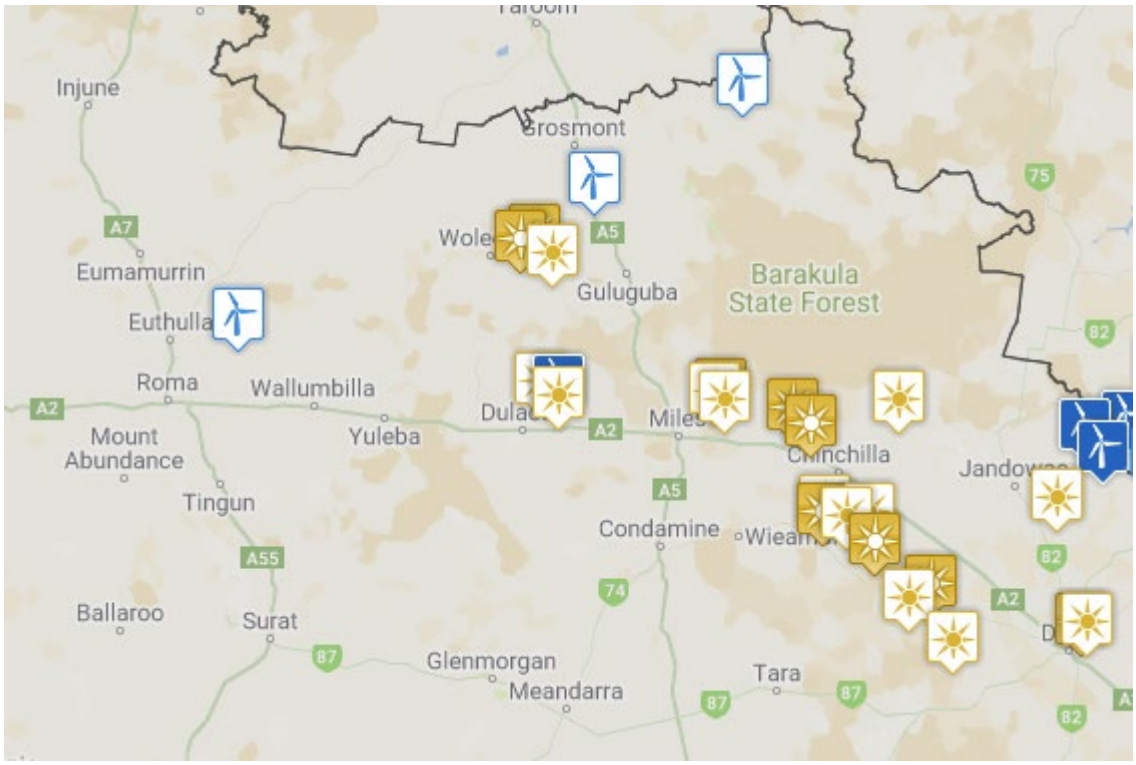


Note: 1 = lowest and 5 = highest perception; scores < 3 indicate unfavourable perceptions, scores > 3 indicate favourable perceptions.
The opposite is true for 'perceived impacts', where higher scores equal less favourable views; n =73 for farm owners with CSG activity in 2024

9 Attitudes and learnings for renewable energy developments from CSG

The Western Downs region has been identified as a key area for providing eastern Australia's energy supplies not only through gas but also through renewable energy developments. The region is also part of Queensland's Energy Plan and holds the Darling Downs and Western Downs Renewable Energy Zones (REZs) within its boundaries. Figure 65 shows current and proposed solar farms and windfarm developments in the region, with proposed developments having lighter icons.

Figure 65 Current and proposed solar farms and windfarm developments in the Western Downs and eastern Maranoa regions

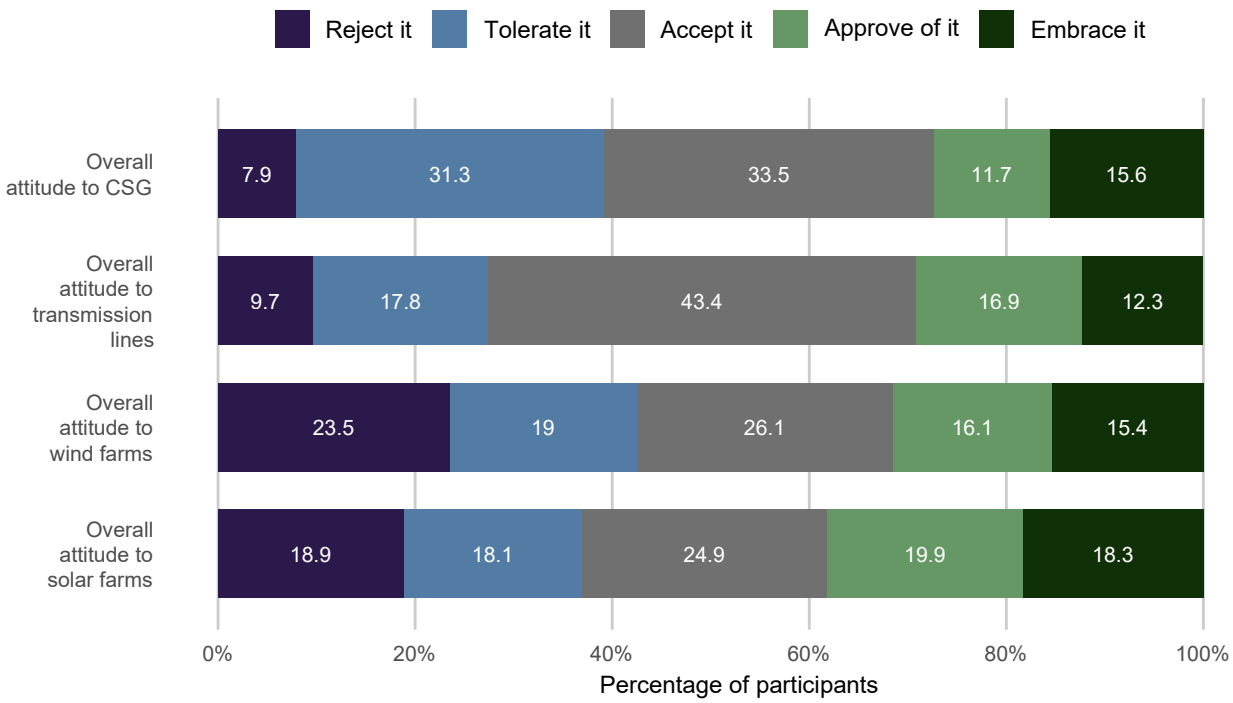


Source: https://electricity-generation-map.epw.qld.gov.au/ assessed 6 March 2025.
Note: lighter icons = proposed developments; darker icons = existing developments or under construction.

Attitudes toward solar farms, wind farms, transmission lines and CSG

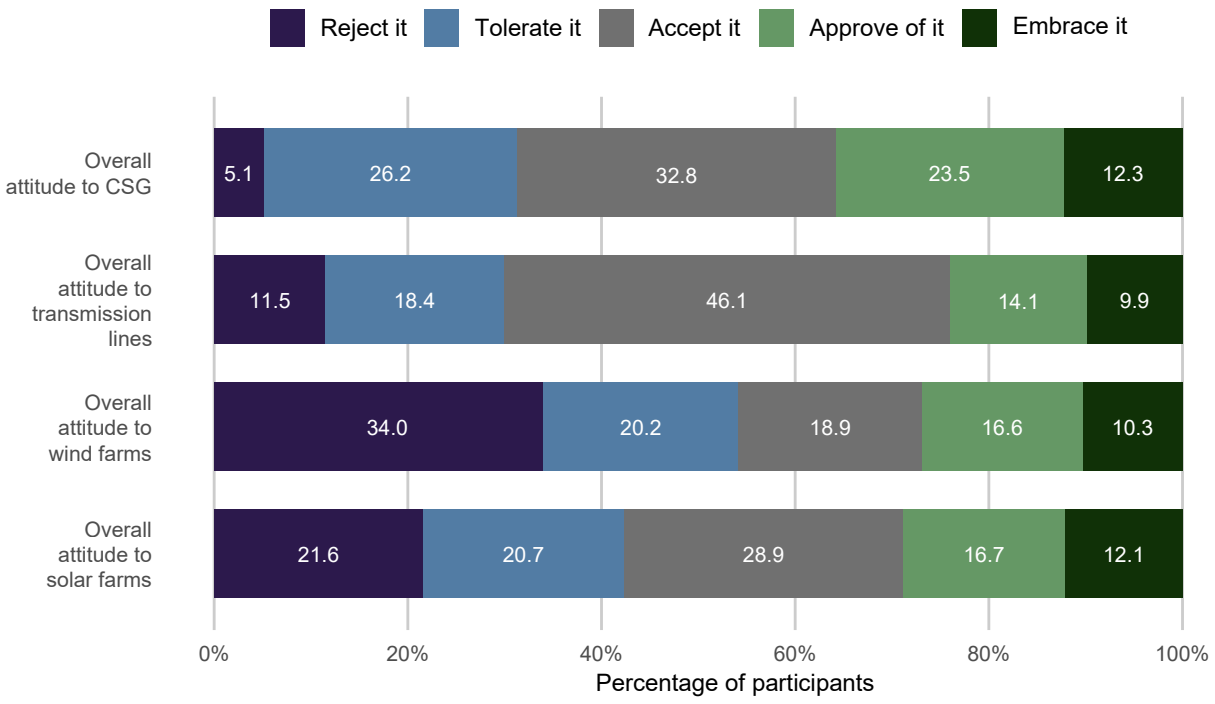
As shown in Figure 66, reported attitudes towards renewable energy infrastructure were quite varied compared to CSG developments. In general, views about renewable infrastructure (i.e., wind and solar farms) were more polarised compared to CSG. For example, a greater percentage of residents either 'approve' or 'embrace' wind (31.5%) and solar (38.2%) farms compared to CSG (27.3%). However, there was also a much greater proportion of people who said they would 'reject' wind (23.5%) and solar (18.9%) farms compared to CSG (7.9%). People were less polarised about transmission lines with 72.6% reporting they would at least 'accept' this type of infrastructure.

Figure 66 Attitudes toward solar farms, wind farms, transmission lines and CSG in the Western Downs, 2024



As shown in Figure 67, a similar degree of polarisation in views about renewable infrastructure was observed in the eastern Maranoa. However, unlike the Western Downs, there was a larger percentage of people who reported they 'approve' or 'embrace' CSG developments compared to the renewable infrastructure options. There was also quite a large percentage of people (34%) who said they would 'reject' wind farms in their region.

Figure 67 Attitudes toward solar farms, wind farms, transmission lines and CSG in the eastern Maranoa, 2024



Learnings for renewable energy development.

Using and open text question, participants were asked to share any learnings from their experiences with CSG development that might be relevant working with other industries such as the renewable energy sector. A quarter of respondents did not describe a lesson. Responses from the remaining 75% of the sample (n=453) who described a lesson, were analysed. Two major lessons were identified each with a subset of themes and are summarised in Figure 68. Detailed descriptions of each lesson are found in Appendix A.6. These comments reflect the importance of good community engagement and overall governance of new energy industries for supporting trust in renewable energy developers and aligns with the social licence model for the CSG industry depicted in Section 6.4.

Figure 68 Summary of lessons for renewable energy development identified from the open-text responses

Lesson 1: Communities and landowners expect industries to have honest and transparent communications and relations with them.

- Maintain respectful and fair negotiations.
- An opaque regulatory environment increases the need for communication and engagement.
- Differences within communities in support for different energy industries increases the need for communication and engagement to meet diverse needs and expectations.

Lesson 2: Minimise impacts and deliver benefits to the environment, economy, and community.

- Deliver benefits for the local economy and community including employment and business opportunities, improved infrastructure and support for community initiatives.
- Plan for negative impacts and mitigate unintended consequences.
- Maintain high environmental and safety standards.

10 Demographic differences

Survey responses were analysed to identify differences in results based on three demographic characteristics: age, gender and income. A summary of key differences in perceptions of community wellbeing and attitudes and perceptions of CSG development in 2024 are reported here. Demographic differences can be explored further in the online interactive dashboard, available at https://shiny.csiro.au/csg_survey

Age

Responses to community wellbeing and social licence questions were compared across three age groups: younger than 35 years, 35 - 54 years and 55 years or older. It was found that people aged 55 years or older reported their community's wellbeing was higher than the other two age groups in both the Western Downs and the eastern Maranoa. In the eastern Maranoa those younger than 35 years and those aged 35 - 54 years rated their community wellbeing to a similar level. However, in the Westerns Downs people aged 35 to 54 reported the lowest level of community wellbeing. In both regions the younger two age groups were less satisfied with services and facilities compared to those aged 55 and older.

In the eastern Maranoa there were relatively small differences between age groups in their perceptions of CSG developments. Even so, people younger than 35 reported less social acceptance of CSG development and were less confident in their levels of knowledge about gas. Conversely, in the Western Downs, people over 55 reported the lowest levels of social acceptance. Those over 55 also perceived higher concerns over future impacts, and less benefits and distributional fairness compared to the younger age categories.

Gender

There were some statistically significant differences in perceived levels of community wellbeing when comparing males and females in both regions. In the Western Downs, males reported higher levels of individual health, income sufficiency, environmental quality and management as well as business and employment opportunities. Conversely, in the eastern Maranoa females rated several community wellbeing dimensions significantly higher than males. Females, on average, were more positive about town appearance, roads, local decision makes and citizen voices, community spirit, community participation, social interaction and place attachment.

Regarding perceptions of CSG development, there were also some differences between genders. In the Western Downs, females reported higher levels of perceived impacts and need for more information, and reported less confidence in their knowledge about CSG. In the eastern Maranoa, females also reported higher perceived impacts and less confidence in their knowledge. Part of this difference may be explained by the nature of the industry comprising male-dominated occupations. As discussed below, those who have experience working in the CSG industry also had more favourable views about local CSG development and if these tend to be males this may explain some of the differences in perception between males and females.

Income

In both regions, higher income was associated with more favourable views about some community wellbeing dimensions. In the Western Downs income was positively associated with reported levels of individual health, income sufficiency and community participation. In the eastern Maranoa, income was only positively associated with perceived income sufficiency. In the Western Downs, income was also positively associated with knowledge confidence about CSG developments.

Association with CSG Industry

Those who have associations with the gas industry were also more supportive of CSG development in their regions. This was particularly prominent for those who had experience working in the CSG industry, with over 50% of people with experience in the industry stating they 'approve' or 'embrace' CSG compared to about 20% who do not have CSG working experience. A similar pattern of results emerged when comparing those who have experience working in mining compared to those who do not. Part of this difference may be explained by the significantly higher levels of perceived knowledge about CSG developments for those with experience working the CSG or mining industries. Those with this work experience also perceived lower impacts and higher benefits compared to those without mining or CSG work experience. Finally, those who have personal connections with people in the CSG industry were also more supportive of local CSG development.

11 Conclusions

Community wellbeing

Community wellbeing remained robust over all four phases of the industry cycle and place attachment remained very high in all subregions, indicating a strong and ongoing sense of belonging and pride towards their local towns and surrounding areas.

Social factors such as community spirit, community cohesion, and local trust together with services and facilities were consistently the key drivers of a sense of community wellbeing. This suggests funnelling resources into activities that support and promote the social wellbeing of a place is equally important as maintaining its levels of infrastructure and services provided within the town and surrounds.

Economic opportunities only featured once in the top five important dimensions underpinning perceptions of community wellbeing over the four survey time points. This was in 2016 and aligns with the post-construction phase of the industry when an economic slow-down was experienced by many small businesses across the region.

Perceptions of economic opportunities and environmental management showed the greatest change over the decade. The community were most dissatisfied with economic opportunities in 2016, again corresponding to the post-construction phase of the industry. In 2024, perceptions of economic opportunities had rebounded into positive territory and were higher than 2014 levels.

Perceptions of environmental management such as management of groundwater, nature reserves and ensuring the sustainability of local faming land for the future showed sustained and gradual improvement over the decade shifting from dissatisfied perceptions on average in 2014 to satisfied levels in 2024.

People's satisfaction with personal safety dropped in 2024 compared to earlier years, becoming one of the top six most important drivers of community wellbeing for residents that year. This potentially reflects a broader trend within Queensland where concern for youth crime and community safety became a number one election issue in the 2024 state elections (Queensland Government, 2025).

Expected future community wellbeing

In 2024, expectations of future community wellbeing showed significant improvement compared to previous years. The majority of people in Western Downs (81%) and eastern Maranoa (89%) believed that their community wellbeing would either remain the same or improve. This marked a stark contrast to 2016, a year when communities felt the most negative about their future wellbeing. Compared to 2016, 2024 saw a notable increase in the percentage of people with a positive outlook on their future wellbeing and a significant decrease in those who felt their future wellbeing would decline.

Expectations about future community wellbeing were largely driven by current levels of community wellbeing and place attachment in 2024. During the earlier industry cycles of construction and post-construction (2014 and 2016), future expectations were also influenced by perceptions of how well the community was adapting to coal seam gas (CSG) development. However, by 2024, this was no longer an important factor shaping future expectations of community wellbeing.

Adapting and coping with changes from CSG development

In 2024, people's perceptions of how their community was coping and adapting to coal seam gas (CSG) development improved significantly compared to previous survey years. Most participants in the Western Downs (73.3%) and the eastern Maranoa (84.1%) felt their region was either 'adapting to the change' or 'changing into something different but better.' Very few participants believed their community was resisting or not coping, with only 5.5% in Western Downs and none in eastern Maranoa expressing these concerns.

This represents a notable improvement from earlier years. In 2014, nearly half of the participants in Western Downs reported their community as either resisting, not coping, or only just coping. Similarly, in 2016, a third of participants in eastern Maranoa indicated their community was resisting, not coping, or only just coping.

An interesting finding is that perceptions of how the community is adapting and coping with CSG development only seem to influence future outlooks when these perceptions are low. When people feel their community is coping and adapting well to changes like CSG development, their expectations for the future are driven more by current wellbeing and place attachment. Conversely, when perceptions of adapting are low, these views shape future expectations, leading to more negative outlooks. Current wellbeing levels and place attachment remained key factors influencing expected future wellbeing across all years.

Attitudes and perceptions of CSG development

CSG attitudes have become more positive

In both the Western Downs and Eastern Maranoa, levels of overall acceptance of CSG development were at their highest in 2024. This is reflected in an increase in the percentage of people who 'approve' and 'embrace' CSG developments and a decrease in the percentage who 'reject' or 'tolerate'. These findings suggest that, in the aggregate, community sentiment has shifted positively toward CSG development with more exposure, indicating greater social acceptance and reduced opposition compared to previous years. The findings suggests that people have become more supportive of CSG developments over time due to lower perceived impacts, higher perceived benefits, and more favourable evaluations of trust in CSG companies, governance, procedural fairness and distributional fairness.

Despite improvements in perceptions and attitudes toward CSG development, farmers both with and without CSG activity still had unfavourable perceptions of impacts, procedural fairness, relationships quality and trust with CSG companies, as well as with the overall governance of the industry, on average. However, notable improvements in these social licence drivers between 2018 and 2024 for farmers with CSG activity, along with increasing perceived benefits and decreasing perceived impacts, were reflected in their improved satisfaction with dealings with CSG companies. Areas identified for continuous improvement by these farmers were improving honesty, communication, fairness, respect, maintenance and responsiveness to issues, essential to further build trust and foster positive relationships.

Subregions of the Western Downs have changed their views at different rates over time

However, the shifts over time have not all happened in the same direction in all subregions of the Western Downs. While most Western Downs regions saw peak levels of support in 2024, Dalby has seen a decrease in CSG support since 2018. One explanation for this finding is the increased levels of

concern about new developments clashing with other land uses and industries in the region (e.g., irrigated farming). This is reflected in the higher levels of perceived impacts reported by people in Dalby compared to other Western Downs subregions. People in Dalby reported being more concerned about hydraulic fracturing over time, land subsidence, CSG well integrity and CSG extending into more farming areas (see Appendix A.7).

Like Dalby, levels of CSG acceptance in Tara was relatively low in 2024 compared to Miles-Wandoan and Chinchilla. Whilst the percentage of Tara residences who 'approve' or 'embrace' was at its highest in 2024, the percentage of those who 'reject' has remained quite consistent since 2014, hovering around 10 percent.

Less support for CSG from those living out-of-town has continued over the decade

There is also a difference in CSG acceptance when comparing those living in-town and out-of-town. One reason for this difference may be the exposure to the benefits of CSG developments as a lot of these benefits are seen more in-town (e.g., local business opportunities, improved services and facilities etc.). The statistically significant difference in the perceived benefits when comparing those in-town vs out-of-town in the Western Downs provides some empirical support for this explanation.

Support for CSG development has continued to be higher in the eastern Maranoa

Support for CSG development has remained higher in the eastern Maranoa over time. One reason for this difference is the less intensive nature of farming in the eastern Maranoa compared to the Western Downs. Additionally, the gas industry has a long history in Roma, with natural gas first discovered there in 1900 and Australia's first gas pipeline connecting the Roma gasfields to Brisbane completed in 1969.

Concerns about negative impacts have decreased and perceptions of benefits have increased

Concerns about the local impacts of CSG development have decreased in both the Western Downs and eastern Maranoa when comparing 2018 to 2024. Concern about CSG developments reducing farm property prices, in particular, dropped quite substantially in the Western Downs when comparing 2018 to 2024. Overall, the findings suggest that CSG developments have had less perceived impact in 2024 compared to 2018. The fact that the CSG industry is now in its full operation**s** phase in these regions means the more transient impacts may have subsided in this phase of development. It is also possible that what were seen as impacts (or potential impacts) in 2018 may have become less salient over time as the negative outcomes either: (1) did not eventuate or (2) became less of an issue due to better management (by industry or government) or better adaptation by local residents.

Residents of the Western Downs and the eastern Maranoa still perceive some risk to underground water due to CSG developments in 2024, even though less than in 2018. In both regions, the average level of residents' perceived knowledge about the risks to underground water is still quite low. This finding presents an opportunity for more engagement with local communities by relevant stakeholders to better explain the current state of knowledge about risks to water from CSG. Such community engagement should be focused on fostering a genuine dialogue with the community to discuss issues and lack of understanding and less about trying to educate or persuade local residents.

Similar to the reduction in perceived impacts, the perceived benefits have also increased over time in both regions. The increase in the perceived benefits from 2018 to 2024 is particularly pronounced in the eastern Maranoa. In the Western Downs, there were a few types of benefits that people seem to be seeing more of in 2024 compared to 2018. Western Downs residents reported more local employment and more opportunities for young people and local business due to CSG developments in

2024 compared to 2018. The findings suggest that in this full operations phase of CSG development, people are seeing more of the local benefits in their region.

Knowledge, information and experience

Levels of knowledge confidence as quite normally distributed, with a high proportion of people in both the Western Downs and the eastern Maranoa reporting moderate levels of knowledge about CSG development. In the Western Downs, self-reported knowledge levels have stayed relatively consistent when comparing 2018 to 2024. However, while less than 20% of people in both regions report having 'a lot' of knowledge about CSG developments in 2024, the desire for more information has decreased from 2018 to 2024. This change in need for information suggests that many people are more comfortable with their levels of knowledge about CSG and are less interested in learning more about it compared to earlier phases of development.

Knowledge confidence also aligns with stronger views about CSG development, whether it be a very negative or very positive attitude towards CSG both are linked to higher levels of knowledge confidence. This suggests that people with stronger views are more likely to have made up their mind about CSG development and unlikely to shift. Whereas people who hold more moderate views and the lowest levels of knowledge confidence are still potentially the group more likely to shift their view over time.

Like information needs, reported interest in the CSG industry has also decreased over time. In the Western Downs, interest in the CSG industry peaked in 2014 (when this question was first asked) and decreased to its lowest point in 2024. Now only 16.5% of people in the Western Downs report being 'very interested' and 14.7% reporting being 'not at all interested'. Similarly, over 40% of people in both the Western Downs say they 'never' or 'seldom' think or talk about CSG in their region. The findings highlight that for some people living in these regions, CSG activity has become 'business as usual' and no longer elicits the same degree of interest it once did when it was a relatively new industry.

Regarding sources of information, relying on friends and family remains the most used resource for information about CSG activity for many people. Information from more official sources like research organisations, government and industry is less commonly relied upon compared to friends and family. Most people also never use anti-CSG groups for information. Beyond word of mouth, social media seems to play an important role for many residents, with close to 50% of people in both the Western Downs and the eastern Maranoa using social media at least sometimes for CSG re. Research organisations, governments and industry may benefit from having a more active presence on social media as well as engaging with trusted community leaders to disseminate relevant information about CSG developments.

Attitudes towards renewables and lessons for the renewable energy sector

In both the Western Downs and the eastern Maranoa, attitudes towards renewable energy infrastructure like solar and wind farms are much more polarised compared to CSG activity. As of 2024, reported rejection rates are quite high for both solar and wind farms in both regions and are much higher than levels of rejection seen in the Australian population in 2023 (McCrea et al., 2024). These levels of rejection are also higher than any of the reported levels of CSG rejection in our surveys conducted over the last 10 years in Western Downs and eastern Maranoa. However, it is important to note that surveys in these regions began after the first CSG activity had started, so it is difficult to determine if rejection rates would have been higher before the industry had started, and if the rejection rates for renewables is an opportunity to say ‘No’ (McCrea et al., 2020). For example, in

Narrabri, New South Wales, which is still in an appraisal phase / pre-construction phase of CSG development, the rejection rates are higher than in the Western Downs for any time between 2014 and 2024 (McCrea & Walton, 2022).

The data showed experiences of residents with coal seam gas (CSG) development offer valuable lessons for the rollout of new industries, such as renewable energy. These lessons revolve around communicating and engaging with landowners and community, ensuring negative impacts are minimised, and making sure tangible benefits are delivered.

The first lesson emphasises the importance of honest and transparent communication between industries and communities, including landowners. It is essential to maintain respectful and fair negotiations. An opaque regulatory environment heightens the necessity for clear communication and engagement. In the early stages of CSG development, a lack of clear regulation and standards created uncertainty. Over time, the establishment of a more defined regulatory framework and oversight can improve trust and acceptance. This highlights the value of a proactive regulatory environment in building confidence and reducing uncertainty.

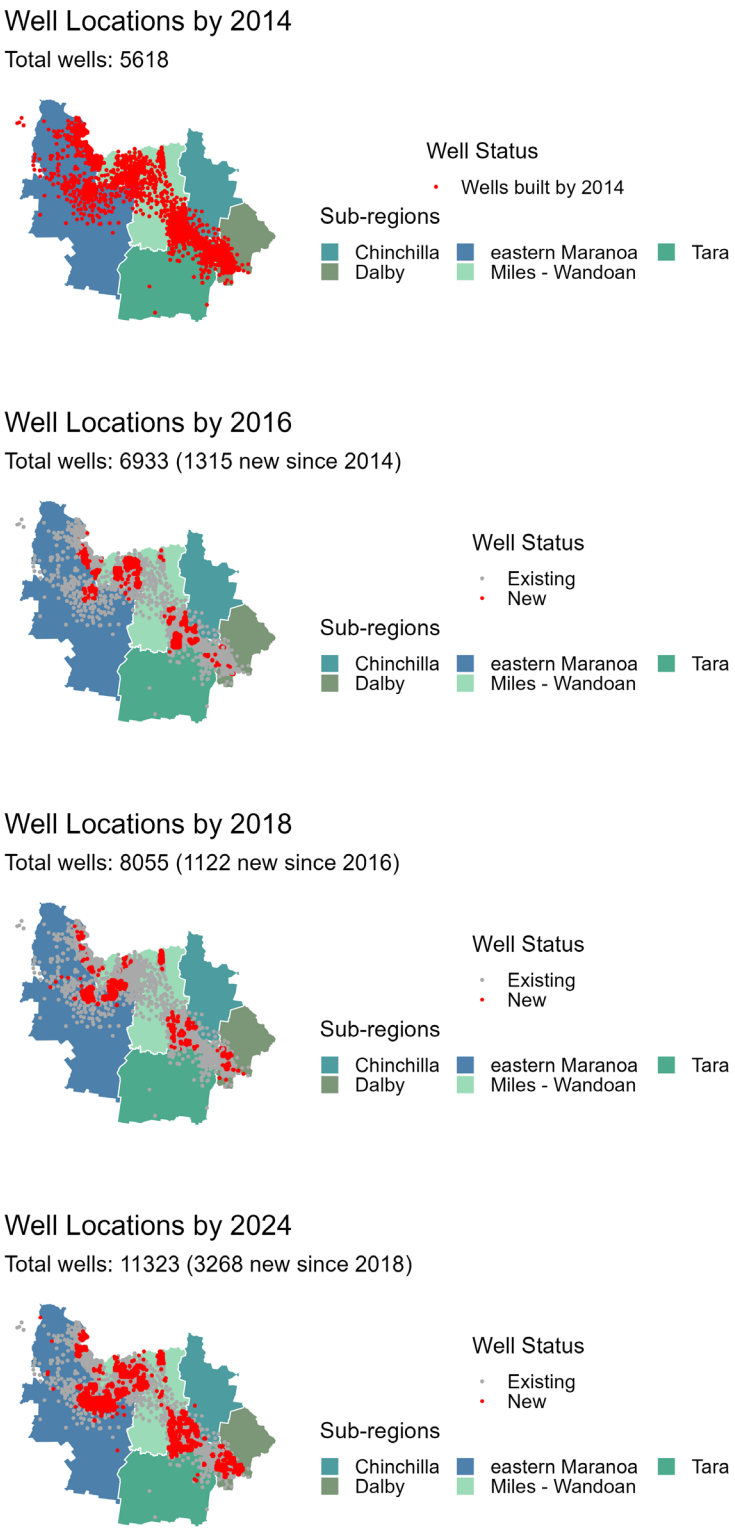
The varying levels of support within communities for energy industries underscore the need for tailored communication strategies to address diverse needs and expectations. Farmers who hosted CSG operations emphasised the importance of receiving accurate and timely information. However, early-stage industries often face challenges in providing precise details due to evolving plans. This uncertainty may be misinterpreted as a lack of transparency. Helping communities understand that some ambiguity is natural in the early phases may foster trust and reduce misinformation and division.

The second lesson focuses on the importance of minimising negative impacts while delivering clear benefits to the environment, economy, and local communities. This includes providing tangible benefits to the local economy and community, such as employment opportunities, business growth, improved infrastructure, and support for community initiatives. It is also critical to anticipate and mitigate any negative impacts and unintended consequences. Maintaining high environmental and safety standards is paramount to achieving these goals.

Appendices

A.1 Well locations by survey year

Figure 69 Well locations by survey year



A.2 Profile of weighted sample

The survey data was weighted by age categories, gender, region, subregion and whether residents lived in or out-of-town. Quota sampling was employed to ensure sufficient sample sizes in each of these categories for reliable survey estimates, including oversampling some of the smaller categories of residents (i.e. smaller subregions and those living out-of-town). Because some categories were oversampled, the survey data was weighted so the survey estimates were representative across this profile of demographic characteristics. Table 7 and Table 8 show the weighted sample profile for the Western Downs and eastern Maranoa regions respectively. The last column in these tables compares these profiles to equivalent percentages from the 2021 Australian population census for residents aged 18 and over in these regions. The tables show that the weighted sample profile for each region closely match the 2021 population census.

Table 7 Profile of weighted Western Downs sample compared to 2021 Population Census

Western Downs region	Sample				Census
	2014	2016	2018	2024	2021
Age					
18-34 years	28.5%	28.3%	28.2%	28.9%	28.3%
35 to 54 years	33.0%	33.2%	33.2%	33.0%	33.2%
55+ years	38.5%	38.5%	38.6%	38.1%	38.6%
Gender					
Male	50.5%	50.5%	50.4%	50.9%	50.4%
Female	49.5%	49.5%	49.6%	49.1%	49.6%
Subregion					
Dalby	44.8%	45.0%	44.9%	45.0%	45.0%
Chinchilla	29.6%	29.7%	29.7%	29.6%	29.7%
Miles-Wandoan	12.9%	13.0%	13.0%	13.0%	12.9%
Tara	12.6%	12.3%	12.4%	12.4%	12.4%
Living out-of-town					
In-town	63.5%	63.3%	63.3%	63.4%	63.3%
Out-of-town	36.5%	36.7%	36.7%	36.6%	36.7%

Table 8 Profile of weighted eastern Maranoa sample compared to 2021 Population Census

eastern Maranoa region	Sample				Census
	2014	2016	2018	2024	2021
Age					
18-34 years	26.6%	27.6%	28.9%	27.7%	29.0%
35 to 54 years	36.1%	35.6%	34.6%	35.4%	35.0%
55+ years	37.3%	36.8%	36.5%	36.9%	36.0%
Gender					
Male	48.2%	48.7%	50.1%	49.0%	49.8%
Female	51.8%	51.3%	49.9%	51.0%	50.2%
Living out-of-town					
In-town	64.6%	64.9%	66.2%	65.2%	65.7%
Out-of-town	35.4%	35.1%	33.8%	34.8%	34.3%

A.3 Survey measures, reliabilities, and scale items

Separate scales were developed for the various measures associated with community wellbeing and perceptions of the CSG sector by averaging the score of the items within the respective scale. All multi-item measures were tested for 'internal consistency' or reliability, measured across years. As shown in Table 9, the reliability of all multi-item measures (scales) usually exceeded .80. Reliability over .90 is considered very good, over .80 is considered good, and .70 considered adequate for scale development.

Table 9 Measuring community wellbeing and perceptions of the CSG sector

Measures of community wellbeing and resilience	No. of items	Scale type and reliability[1]	Survey items in 2018 (items in brackets not used in scale because not collected in all years)
Personal safety	4	Agreement .82	It is safe to be alone at home during the night; to walk alone outside at night; to leave the car by the roadside at night; overall feel safe living in the area
Income sufficiency	4 (3)	Agreement .91	Your income is enough for household expenses; for the lifestyle you enjoy; overall satisfied income covers living expenses; (your rent or mortgage repayments impact greatly on household finances)
Health	7	Satisfaction .80	With diet and eating habits; exercise habits; physical health; mental health; job security; work life balance; overall satisfaction with health and wellbeing
Services and facilities	9	Satisfaction .87	With local schools; childcare facilities; sports and leisure facilities; cultural facilities; shopping for food and everyday items; other shopping; medical and health services; community support services; overall satisfaction with services and facilities
Town appearance	3	Satisfaction .86	With cleanliness in the town; greenery and parks in the town; overall satisfaction with general appearance of the town
Roads	4	Satisfaction .87	With condition; safety; and amount of traffic on roads; roads overall
Environmental quality	4 (3)	Satisfaction .75	With level of dust; noise; overall quality of the general environment; (quality of the air)
Environmental management	4	Satisfaction .86	With quality of underground water; nature reserves; and sustainability of local farming land for the future; overall management of the natural environment for the future
Local decision making	4	Agreement .89	Local council informs residents; opportunities to be heard; local council can be trusted; overall satisfied with how decisions are made for the community
Economic opportunities	3	Agreement .88	There are good job opportunities; local businesses are doing well; overall satisfied with employment and business opportunities
Community spirit	4	Agreement .91	People can rely upon one another for help; people have friendly relationships; can work together if there is a serious problem; overall there is good community spirit around here.
Community cohesion	4 (3)	Agreement .88	Community is welcoming of newcomers; and people of different cultures; overall community includes everyone no matter who they are; (is tolerant of people with different views)
Local trust	3	Agreement .81	People that you see around [local area] can generally be trusted; local community leaders can be trusted; overall satisfied with levels of trust in local area
Community participation	4	Agreement .90	Regularly help out as a volunteer; attended several community events in the past year; very active member of a local group; overall participate regularly in community activities
Social interaction	4	Agreement .81	Regularly visit someone's home; go out together socially; speak or text on phone; overall satisfied with level of social interaction in local area

Measures of community wellbeing and resilience	No. of items	Scale type and reliability[1]	Survey items in 2018 (items in brackets not used in scale because not collected in all years)
Overall community wellbeing	5	Agreement .85	Community is suitable for young children; teenagers; seniors; overall offers a good quality of life; overall happy living in local area
Expected future wellbeing	2	Agreement .88	In 3 years time, I will be happy living in this local area; it will offer a good quality of life
Place attachment	3	Agreement .86	Feel that I belong to this area; pleased to come back to the area if I go away; overall feel very attached to the local area
Coping and adapting	2	Agreement .90	Local area and surrounds is coping with CSG activities; is adapting to CSG activities

Notes: [1] Reliabilities were calculated across all years.

Measures for perceptions and attitudes about CSG	No. of items	Scale type and reliability[1]	Examples for scale items
Perceived impacts	19	Concern .96	Water contamination; depletion of aquifers; health impacts; the natural environment; community division; CSG extending into other areas; well integrity over time
Water risk manageability	3	Agreement .74	Risks to underground water are understood by science; are understood by the community; are manageable
Water risk severity	1	Agreement n.a.	Risks to underground water are potentially catastrophic
Perceived benefits	10	Agreement .92	Local employment; local business opportunities; corporate support for local community activities; energy supply in Australia; as a transition fuel
Distributional fairness	3	Agreement .79	You consider it fair to live near CSG development if compensated accordingly; if local council compensated accordingly; your community receives a fair share of the benefits
Procedural fairness	4 (3)	Agreement .90	CSG company would listen to and respect community opinions; inform residents of important developments; give opportunities for communities to participate in decision making ; (be prepared to change its practices in response to community sentiment)
Relationship quality	4 (3)	Agreement .90	CSG companies are accessible or easy to contact; open, honest and transparent; engage in genuine two way dialogue; (respond to issues in a timely manner)
Governance overall	12(6)	Agreement .91	Queensland regulators inform local communities of any issues with CSG activities as they arise; listen to and respond to community concerns; and are able to hold companies accountable; CSG companies comply with regulations; and with land access agreements; Overall, you can trust state government bodies overseeing CSG development (The regional council listens to and advocates for local communities on CSG issues; has good plans and strategic vision re CSG development; legislation and regulation can be counted on to ensure CSG companies do the right thing; trust state governing bodies overseeing CSG to act responsibly; in local community's best interest's; trust their capability)
Trust in CSG company	4	Extent of trust .94	Trust local CSG companies to act responsibly; in local community's best interest's; trust their capability; overall extent of trust
Role of CSG in the energy transition	1	n.a.	Perceived importance of CSG's role in the energy transition
Social acceptance	2	Agreement	Acceptance of CSG development activity in the region; Overall attitude to coal seam gas in the region, either reject, tolerate, accept, approve, or embrace it (categoric)

Measures for perceptions and attitudes about CSG	No. of items	Scale type and reliability[1]	Examples for scale items
Feelings toward CSG	4	Agreement .85	Feelings: pleased; optimistic; angry; worried (the last two reverse coded)
Knowledge confidence	3 (1)	Level n.a.	How much do you feel you know about the local coal seam gas industry; (how the gas is extracted; how underground water could be affected)
Need for more information and interest	1	Level n.a.	How much more information do you feel you need about the local CSG industry; interest in the CSG discussions, frequency of thinking and talking about CSG development.
Information sources sources	7	Frequency n.a.	Information sources about the local CSG industry: government sources; research organisations; anti-CSG groups; (pro-CSG groups); industry sources; local papers and radio; social media (e.g. Facebook); word of mouth

Notes: [1] Reliabilities were calculated across all years.

Development of the measures

The survey questions were developed from previous research conducted on community wellbeing and responding to change in communities experiencing CSG development (Walton et al., 2016; 2014) and informed by the research findings of the previous stage in this research project (Phase 2), which explored community expectations and perceptions of the CSG sector in Narrabri (Walton et al, 2017). Initially these items were developed and adapted from an extensive literature review, including qualitative research in the CSG field (Walton, McCrea, Leonard, & Williams, 2013; Williams & Walton, 2014), and community wellbeing and resilience research (Christakopoulou, Dawson, & Gari, 2001; Forjaz et al., 2011; Morton & Edwards, 2013; Onyx & Leonard, 2010; Sirgy, Widgery, Lee, & Yu, 2010; Walton et al., 2013).

In addition, the survey questions relating to social acceptance and trust were developed from previous research conducted by CSIRO on social licence to operate in mining and the waste and resource recovery industries (McCrea et al., 2016; Moffat & Zhang, 2014; Moffat, Zhang, & Boughen, 2014) and further informed by research conducted in Narrabri in relation to CSG development (Walton & McCrea, 2017; Walton et al., 2017; Walton, A., & McCrea, 2020).

A.4 Social licence path model

A social licence path model was developed predicting social acceptance and feelings toward CSG development in the residents' region, trust in the industry, perceptions of distributional fairness and their underlying drivers (e.g., perceived impacts, benefits and governance of the industry. Social acceptance and feelings toward CSG development in the region was measured as the mean of these measures of acceptance and feelings.

This model was tested for any differences between the Western Downs and the eastern Maranoa region in terms of the model's coefficients and intercepts terms using multigroup path analysis. A generalized Huber/White/sandwich estimator of standard errors was used to avoid the assuming that standard errors of parameter estimates are not correlated within subregions, providing more robust inferences. Using Wald tests and follow up Bonferroni t-tests, no statistically significant differences were found in coefficients or intercept terms between the Western Downs and eastern Maranoa regions, and so the data from both regions was combined. The data for the combined regions fit the model very well for both weighted and unweighted data (standardized root mean squared residual = 0.03 for both). Table 10 shows the statistics for the social licence model using the weighted combined dataset in 2024.

Table 10 Statistics for social licence path model

			95% CI	
Dependent variable/predictor variables	Std. coeff.	p-value	Lower	Upper
Social acceptance and feelings toward CSG development (R^2=69.8%)				
Trust in CSG companies	0.33	0.000	0.27	0.40
Distributional fairness	0.06	0.044	0.00	0.11
Perceived impacts	-0.39	0.000	-0.42	-0.36
Perceived benefits	0.15	0.024	0.02	0.27
Knowledge confidence	0.09	0.118	-0.02	0.20
Role of CSG in the energy transition	0.14	0.000	0.08	0.21
Trust in CSG companies (R^2=69.8%)				
Relationship quality	0.20	0.000	0.15	0.26
Perceived impacts	-0.09	0.028	-0.17	-0.01
Perceived benefits	0.10	0.010	0.02	0.17
Governance	0.57	0.000	0.47	0.68
Distributional fairness (R^2=45.0%)				
Perceived impacts	-0.13	0.001	-0.21	-0.06
Perceived benefits	0.35	0.000	0.18	0.52
Governance	0.22	0.004	0.07	0.37
Procedural fairness	0.12	0.002	0.04	0.20
Relationship quality (R^2=64.6%)				
Governance	0.37	0.000	0.31	0.44
Procedural fairness	0.48	0.000	0.39	0.57

Note: The standardised coefficient (std. coeff.) gives an indication of the relative importance of each predictor of the dependent variable. The *p*-value indicates the probability that the true coefficient of each predictor is not zero (cf. the sample estimate), and the confidence interval (CI) represents the range within which we can be confident that the true coefficient falls, bounded by the lower and upper values. Finally, the R-squared (R^2) is the percentage of variation in the dependent variable explained by the predictors.

A.5 Steps undertaken in thematic analyses of open-text questions

For each open-text question, the analysis involved the following steps:

1. A researcher with experience on the topic reviewing all the responses to familiarise themselves with the variety of responses before identifying possible themes.
2. Preparation of data for processing with Copilot M365, including developing chat prompts.
3. Initial processing with Copilot M365 to identify preliminary themes and generate summarises of these themes.
4. Preliminary themes were further refined by the following activities:
    - Comparing text responses of participants who were grouped based on responses to linked survey questions (e.g., responses of participants who reported to expect community wellbeing to decline, stay the same, or improve).
    - Comparing text responses of participants with demographic differences, such as location differences (e.g., by region, subregion, in-town vs. out-of-town residence).
    - Checking against initial themes identified by the researcher, manually checking for artificial intelligence errors, and critiquing findings within the research team.
5. The final step involved the researcher writing a summary of themes, including differences in subcategories of responses and demographic characteristics, and using quotes to demonstrate key themes. The write-up was reviewed by all members of the research team.

A.6 Lessons from CSG development for renewable energy industries

Lesson #1 Communities and landowners expect industries to have honest and transparent communications and relations with them.

Respondents commonly recommended that renewable energy companies prioritise building trust with community, including landowners, by maintaining transparency, providing regular updates, and engaging in honest discussions about project benefits and risks. Effective communication and community engagement were described as essential for success and a genuine way to lessen resistance from the community. Supporting local organisations and involving the community in projects were noted to foster better relationships.

> *Transparency. Being very open with the whole community at the beginning as to what the benefits are, and making sure the community knows there's benefits. I think there's benefits Australia wide, and great benefits to young people, and we can't have an attitude of 'we're happy with it somewhere else, and not in our backyard'. Maybe not rushing it as much as they did to start with. To start with they had a confrontational approach, and they ended up with a community and conciliatory approach, and more explaining. They need to be more like that right from the beginning. (64)*

Respondents who were from “Out of Town” and/or “Western Downs” more frequently emphasised the importance of respectful and fair negotiation, particularly with landowners/farmers. Respecting landowners' decisions and ensuring fair compensation was described as a lesson learned from the CSG industry's history. Initially, there were conflicts due to the industry's disregard for farmers' decisions. Comments indicated that to avoid similar issues, the renewable energy industry can adopt a more respectful and fair approach to land negotiations.

> *(In) dealing with existing landholders there’s been a lot of upset people…Need to be more sympathetic and provide better compensation. (343)*

Infrequently, respondents identified that different regulatory environment for onshore gas and renewables, including perceptions of a weaker regulatory environment for renewables could increase the importance of communications and relations.

> *I think the word is, that CSG is being regulated, but all the new renewables coming through are unregulated, and causing problems, such as neighbours against neighbours, or people coming onto properties unannounced. Owners aren't compensated for their time negotiating. (232)*

There was much variation in comments about the support for energy industries. The variation in responses suggest widespread community and landowners support for and acceptance of renewable energy industries cannot be assumed, again, highlighting the importance of communications and relations.

> *Hard one to answer. Explain to the people what the future of it looks like. People are concerned about the future of wind farms and solar panels. Who’s going to clean up the mess in 20 years time? (587)*

Lesson #2 Minimise impacts and deliver benefits – environment, economy and community.

Respondents commonly reported that renewable energy companies should minimise their impacts on and deliver benefits for the environment, economy and community. Minimising impacts and delivering benefit was suggested to include supporting local community groups/events, planning and preparing

for impact and benefit management, and where necessary mitigating unintended consequences that arise. Overall, indicators where that the community expects impacts to be minimised and benefits to be delivered, and that benefits outweigh risks and impacts.

> *I don't agree that the benefits outweigh the risks, and they really need to weight that up. (299)*

Impacts on the environment and safety were frequently mentioned. Some respondents perceived the CSG industry to be damaging or at least more damaging than renewable energy industries, whereas some respondents reported the opposite. Prioritisation, high standards, maintenance, care and permits were all reflected as positive management strategies for avoiding negative environmental impacts and accidents. Respondents that were from "out of town" more frequently emphasised safety and preventing accidents.

> *Look after the environment. (189)*

> *Maintain their equipment on a regular basis to prevent any accidents. (163)*

Impacts on the economy and community were also frequently mentioned and their importance emphasised. Preferences for local economic benefits were expressed, including local employment, the sourcing of local goods and services, support for community initiatives and infrastructure. Planning and preparation for fluctuations in demand for infrastructure were emphasised, such as the change in housing demand during increased and then reduced industry activity.

I guess the biggest one from this region is the development for infrastructure stage is not reflective of the ongoing staffing requirements e.g. … the solar and windfarms number of staff requirement to build is more than the staff needed to maintain… it's affecting housing situation in town, and more planning around housing is required. (254)

A.7 Survey item means by region and subregion in 2024

Table 11 Community wellbeing survey items by region and subregion in 2024 (means)

	Subregions Western Downs					Regions		
	Dalby	Chinchilla	Miles-Wandoan	Tara		Western Downs	Eastern Maranoa	
Thinking about [NAME] and surrounds, how much do you agree with the following statements? [scale from 1 = strongly disagree to 5 = strongly agree]								
I feel that I belong to this area	4.41	4.23	4.42	4.21		4.34	4.45	
I am pleased to come back to the area, if I go away	4.41	4.33	4.45	4.52		4.41	4.38	
Overall, I feel very attached to this local area	4.21	4.14	4.30	4.25		4.20	4.29	
Now a few questions about personal safety. On a scale from 1 to 5, how much do you agree that:								
It is safe to be alone at home during the night	3.90	3.90	4.10	4.19		3.96	4.25	**
It is safe to walk alone outside at night	3.36	3.36	3.85	3.90	**	3.49	3.79	**
It is safe to leave the car on the side of the road at night	2.91	2.58	3.39	2.42	**	2.82	3.16	**
Overall, I feel safe living in the area	4.06	3.97	4.34	4.19		4.08	4.35	**
Thinking about your household income, how much do you agree that:								
Your income is enough for household expenses	3.35	3.55	3.89	3.38		3.48	3.63	
Your income is enough for the lifestyle you enjoy	3.19	3.42	3.79	3.44		3.37	3.62	*
Your rent or mortgage repayments impact greatly on your household finances	3.26	2.98	2.98	3.04		3.11	3.13	
Overall, I am satisfied that my income covers living expenses	3.47	3.61	3.81	3.64		3.58	3.73	
Thinking about your health and wellbeing, how satisfied are you with: [on a scale from 1 = very dissatisfied to 5 = very satisfied]								
Your diet and eating habits	3.62	3.69	3.79	3.89		3.70	3.87	*
Your exercise habits	3.23	3.38	3.44	3.23		3.30	3.32	
Your physical health	3.53	3.62	3.70	3.21		3.54	3.79	**
Your mental health	3.86	3.72	4.00	3.84		3.83	3.92	
Your job security, if applicable	3.86	3.81	4.08	3.67		3.85	4.29	**
Your work-life balance	3.41	3.45	3.58	3.33		3.43	3.62	
Overall, how satisfied are you with your health and wellbeing	3.81	3.77	3.94	3.83		3.82	3.90	
Thinking of services and facilities for your local area, how satisfied are you with:								
Local schools	3.61	3.71	3.30	3.22	*	3.55	3.69	
Childcare facilities	3.42	3.13	2.85	3.17	*	3.23	3.19	
Sports and leisure facilities	3.34	3.59	3.40	3.23		3.41	3.69	**
Cultural facilities	3.02	3.42	3.18	3.18	*	3.18	3.65	**
Shopping for food and everyday items	4.12	3.52	3.27	3.57	**	3.76	3.52	*
Other shopping (e.g., clothes and household goods)	3.43	2.56	2.32	2.90	**	2.96	2.99	
Medical and health services	3.22	2.87	2.81	3.24	*	3.07	3.46	**
Community support services (e.g. meals on wheels, youth workers)	3.33	3.34	3.25	3.37		3.33	3.51	
Overall, how satisfied are you with the services and facilities of [main town]	3.61	3.46	3.04	3.60	**	3.49	3.78	**
Thinking about [NAME]'s general appearance, how satisfied are you with the following:								
Cleanliness in the town	3.90	3.94	4.13	3.75		3.92	3.89	
Greenery and Parks in the town	3.90	4.24	4.17	3.95	*	4.04	3.86	*
Overall, how satisfied are you with the general appearance of the town	3.97	4.08	3.99	3.97		4.01	3.87	
Thinking about the roads outside of [NAME], how satisfied are you with the:								
Condition of the roads	2.06	2.01	2.00	1.73		2.00	2.45	**
Safety on the roads	2.58	2.50	2.49	2.17		2.49	2.88	**
Amount of traffic on roads	3.20	3.01	2.98	3.46		3.15	3.32	
Thinking about pollution in the general environment, how satisfied are you with the:								
The roads overall	2.53	2.33	2.38	2.05	*	2.39	2.75	**
Level of dust	3.48	3.53	3.42	3.30		3.47	3.73	**
Level of noise	3.92	3.96	3.89	4.10		3.95	4.12	*
Quality of the air	3.96	4.17	4.12	4.30		4.08	4.37	**

	Subregions Western Downs					Regions		
	Dalby	Chinchilla	Miles-Wandoan	Tara		Western Downs	Eastern Maranoa	
Overall quality of the general environment around [main town]	3.89	4.09	4.01	4.13		4.00	4.19	**
Now thinking about the natural environment around [NAME], how satisfied are you with the management of the:								
Quality of underground water for the future	3.09	3.06	2.91	3.21		3.07	3.30	*
Nature reserves for the future	3.29	3.42	3.14	3.41		3.32	3.49	
Sustainability of local farming land for the future	3.40	3.33	3.39	3.70		3.41	3.68	**
The overall management of the natural environment for the future	3.27	3.35	3.22	3.28		3.29	3.53	**
Thinking about how decisions are made affecting [NAME] and surrounds, how much do you agree that:								
The local council informs residents of important developments	2.60	2.88	2.69	2.29	**	2.65	3.28	**
There are opportunities for your voice to be heard on issues important to you	2.73	2.93	2.75	2.37	**	2.74	3.37	**
Overall, I am satisfied with how decisions are made that affect [main town]	2.62	3.01	2.57	2.34	**	2.69	3.27	**
Regarding employment and business opportunities in the local area, how much do you agree that:								
There are good job opportunities	3.49	3.32	3.23	2.88	*	3.33	3.98	**
Local businesses are doing well	3.40	3.28	3.07	3.22		3.30	3.55	**
Overall, I am satisfied with job and business opportunities in my local area	3.49	3.33	3.24	3.03		3.35	3.76	**
Thinking about community spirit in your local area, how much do you agree that:								
People can rely upon one another for help	3.66	3.80	4.17	3.55	**	3.75	4.14	**
People have friendly relationships	3.83	3.88	4.03	3.66		3.85	4.17	**
There is good community spirit around here	3.83	4.02	4.11	3.70	*	3.91	4.14	**
Overall, I am satisfied with community spirit in the area	3.82	4.01	4.11	3.72		3.90	4.16	**
Thinking about how inclusive your local community is, how much do you agree that:								
Your community is welcoming of newcomers	3.67	3.68	3.79	3.45		3.66	3.89	*
Your community is tolerant of people with different views	3.32	3.23	3.43	3.19		3.29	3.46	
Your local community is welcoming of people of different cultures	3.56	3.67	3.66	3.65		3.62	3.93	**
Overall, your community includes everyone no matter who they are	3.59	3.71	3.77	3.64		3.66	3.82	
Thinking about levels of trust in your local area, how much do you agree that:								
There are local community leaders you can trust	3.17	3.46	3.47	2.99	*	3.27	3.72	**
Your local council can be trusted	2.87	3.21	3.23	2.42	**	2.96	3.56	**
People that you see around [main town] can generally be trusted	3.30	3.55	3.41	2.99	**	3.35	3.80	**
Overall, I am satisfied with levels of trust in my local area	3.44	3.60	3.50	3.15	*	3.46	3.88	**
Thinking now about participating in local community groups around [NAME] (like school, sport, church and service groups), how much do you agree that:								
You regularly help out a local group as a volunteer (e.g., once a week)	2.88	2.87	3.21	2.63		2.89	3.11	
You have attended several community events in the past year	3.50	3.51	3.74	3.06		3.48	3.89	**
You are a very active member of a local organisation or club	3.30	2.78	3.14	2.65	*	3.04	3.31	
Overall, you participate regularly in a variety of community activities	3.21	3.05	3.44	2.71		3.13	3.47	**
Now we have some questions about everyday interactions with people, other than those you may live with. How much do you agree that you do the following with others regularly around [NAME]:								
Visit someone's home	3.44	3.35	3.07	3.03		3.31	3.49	
Go out together socially	3.37	3.30	3.02	2.71	**	3.22	3.54	*
Speak or text on the phone	4.22	3.93	3.83	3.76	*	4.03	4.14	
Overall, I am satisfied with the amount of my social interaction in the local area	4.06	3.99	3.87	4.00		4.01	4.14	

	Subregions Western Downs					Regions		
	Dalby	Chinchilla	Miles-Wandoan	Tara		Western Downs	Eastern Maranoa	
Thinking about overall community wellbeing around [NAME] and surrounds, how much do you agree that:								
This community is suitable for young children	3.66	3.88	4.11	3.69	*	3.78	4.21	**
This community is suitable for teenagers	3.18	3.32	3.35	3.09		3.23	3.65	**
This community is suitable for seniors	3.89	3.98	3.93	3.85		3.91	4.20	**
Overall, this local area offers a good quality of life	3.94	4.10	4.16	3.98		4.02	4.31	**
Overall, I am happy living in this local area	4.18	4.18	4.34	4.37		4.22	4.41	*
Imagining what it might be like in 3 years time, how much do you agree that:								
Overall, I will be happy living in this local area	3.87	3.92	3.88	4.13		3.92	4.13	*
Overall, this local area will offer a good quality of life	3.89	3.98	3.91	4.10		3.95	4.20	**

Note: p-values *p<.05, **p<.01, ***p<.001

Table 12 Expected future community wellbeing item by region and subregion in 2024 (percentages)

	Subregions Western Downs				Regions	
	Dalby	Chinchilla	Miles-Wandoan	Tara	Western Downs	Eastern Maranoa
Over the next 3 years, do you think community wellbeing will [respondent to select one of the following]:						
Decline	16.1	19.0	25.0	23.2	19.0	11.3
Stay about the same	66.1	58.6	57.5	48.7	60.6	63.0
Improve	17.8	22.4	17.5	28.1	20.4	25.7

Note: p-values *p<.05, **p<.01, ***p<.001

Table 13 Perceptions and attitudes about CSG and the sector by region and subregion in 2024 (means)

	Subregions Western Downs					Regions		
	Dalby	Chinchilla	Miles-Wandoan	Tara		Western Downs	Eastern Maranoa	
Thinking about CSG development, how concerned are you about the following [scale: 1 = not at all concerned; 5 = very concerned]:								
Reducing farm property values	3.23	2.72	2.47	2.87	**	2.93	2.61	*
co-existence with agriculture	3.28	2.80	2.54	2.87	**	2.99	2.89	
Risk of fire	2.96	2.69	2.61	2.91		2.83	2.51	**
Depletion of underground water	3.59	3.23	3.50	3.25		3.43	3.42	
Water contamination	3.75	3.20	3.42	3.40	*	3.50	3.43	
Air contamination	3.12	2.82	2.60	2.44	**	2.88	2.62	*
The natural environment (e.g., state forests)	3.36	2.88	2.71	2.81	**	3.06	2.83	
Disposal of salt and brine	3.40	3.09	3.10	3.23		3.25	3.06	
Dust, noise, and light pollution	2.99	2.78	2.79	2.51		2.84	2.58	*
Traffic on the roads	3.20	3.08	3.12	2.72		3.09	2.83	*
Health impacts	3.19	2.81	2.71	2.59	*	2.94	2.60	**
Cost of housing (i.e., renting or buying)	3.77	3.51	3.19	3.17	**	3.54	3.53	
Community division over CSG development	3.30	3.03	2.83	2.91		3.11	2.88	*
Pressure on services and facilities	3.25	3.03	3.02	2.80		3.10	3.00	
Overall, how concerned are you about negative impacts	3.39	2.90	3.02	2.76	**	3.12	2.85	*
Thinking about possible future issues, how concerned are you about [scale: 1 =not at all concerned; 5 =very concerned]:								

	Subregions Western Downs					Regions		
	Dalby	Chinchilla	Miles-Wandoan	Tara		Western Downs	Eastern Maranoa	
Changes in CSG operators over time	3.24	2.76	2.84	2.76	*	2.99	2.74	*
Additional hydraulic fracturing (fracking) over time	3.67	3.11	3.01	3.21	**	3.36	3.18	
Land subsidence (sinking of the ground over time)	3.72	3.04	3.12	3.12	**	3.37	3.04	**
CSG well integrity over time (e.g., leaks)	3.60	3.19	3.10	3.22	*	3.37	3.05	*
CSG development extending into more farming areas	3.91	3.24	3.19	3.44	**	3.56	3.18	**
Overall, how concerned are you be about possible future issues with CSG	3.58	3.04	2.94	3.21	**	3.29	3.02	*
How much do you agree that risks to underground water from CSG activities [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]:								
Are understood by science	3.07	2.96	2.77	2.87		2.97	3.14	
Are understood by the community	2.77	2.53	2.43	2.47		2.61	2.75	
Are manageable	3.05	2.97	2.48	2.84	*	2.93	3.18	*
Are potentially catastrophic	3.35	3.11	3.16	2.90		3.20	3.26	
How much do you agree that CSG development provides significant local benefits for [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]:								
Local employment	3.69	3.79	3.36	3.62		3.67	3.93	**
Opportunities for young people to stay in the region	3.48	3.73	3.15	3.64	*	3.53	3.80	**
Local business opportunities	3.46	3.52	3.11	3.42		3.43	3.75	**
Corporate support for local community activities (e.g. sponsoring local clubs)	3.66	3.85	3.75	3.66		3.73	4.01	**
Additional local services, facilities, and infrastructure	3.40	3.30	3.07	3.16		3.30	3.59	**
Diversifying local skills in the region	3.40	3.42	3.13	3.21		3.35	3.47	
Long-lasting benefits for the region	3.16	3.22	3.08	3.16		3.17	3.47	**
Creating new industries in the region	3.20	3.32	2.70	3.07	*	3.15	3.46	**
Overall, CSG development brings significant benefits to the local community	3.28	3.45	3.01	3.40		3.31	3.62	**
Now thinking more broadly about the potential benefits of CSG, how much do you agree that CSG extraction provides wider societal benefits, such as [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]								
A transition fuel between coal and renewable energy sources	3.29	3.09	3.18	3.28		3.22	3.46	*
Improving energy supply in Australia	3.39	3.15	3.22	3.28		3.28	3.56	**
Boosting the wider Australian economy	3.51	3.45	3.38	3.47		3.47	3.80	**
Overall, CSG in the region provides significant benefits for wider society	3.23	3.31	3.25	3.43		3.28	3.67	**
How much do you agree with the following statements [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]								
I consider it fair to live near CSG if I were compensated accordingly	3.27	3.44	3.60	3.52		3.40	3.74	**
I consider it fair to live near CSG if local council is compensated accordingly	2.87	3.02	2.99	2.83		2.93	3.49	**
My community receives a fair share of the benefits from the CSG development	3.14	3.30	3.11	3.13		3.18	3.51	**
Thinking about how decisions might be made about this CSG development, how much do you agree that CSG companies [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]								
Listen to and respect the community's opinions	2.86	3.00	2.79	3.01		2.91	3.09	
Inform residents of important developments regarding the site	2.97	3.03	3.00	3.08		3.01	3.07	
Give opportunities for local people to participate in their decisions	2.77	2.90	2.56	2.84		2.79	2.92	
How much do you agree that CSG companies [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]								
Are accessible or easy to contact	2.91	2.89	3.08	3.08		2.95	3.23	**
Are open, honest and transparent	2.67	2.66	2.47	2.84		2.66	2.84	
Engage in genuine two-way dialogue	2.76	2.77	2.75	2.88		2.78	3.01	*
Thinking about how CSG companies are governed by state regulators, how much do you agree that: [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]								

	Subregions Western Downs					Regions		
	Dalby	Chinchilla	Miles-Wandoan	Tara		Western Downs	Eastern Maranoa	
They hold CSG companies accountable for any breaches	2.77	3.01	2.75	2.92		2.86	3.08	
They inform local communities of any issues with CSG activities as they arise	2.73	2.81	2.48	2.59		2.70	2.87	
They listen to and responds to any community concerns	2.83	2.87	2.62	2.76		2.80	3.05	*
CSG companies comply with regulations	3.22	3.29	3.51	3.17		3.27	3.50	*
CSG companies comply with land access agreements	3.24	3.39	3.44	3.21		3.30	3.57	*
Overall, you can trust state government bodies overseeing CSG development	2.60	2.56	2.28	2.41		2.52	2.73	*
To act in the local community's best interests	2.81	2.96	2.92	2.96		2.89	3.05	
To act responsibly	3.04	3.24	3.32	3.06		3.14	3.29	
Their capability	3.22	3.35	3.39	3.38		3.30	3.51	*
Overall, to what extent can you trust CSG companies	2.88	3.07	2.89	3.09		2.96	3.14	
Thinking about CSG development in this region [scale: 1=not at all accepting; 3=Somewhat accepting; 5=very accepting]:								
How accepting are you of this CSG activity?	3.17	3.54	3.50	3.28		3.34	3.57	*
Thinking about CSG development in this region, how much do you agree you feel? [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]								
Pleased	3.05	3.20	3.18	3.12		3.12	3.26	
Optimistic	3.03	3.10	3.10	3.15		3.07	3.33	*
Angry	2.20	2.11	1.83	1.96		2.10	1.96	
Worried	2.84	2.59	2.44	2.33		2.65	2.51	
How much do you agree that [NAME] and surrounds [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]								
Is coping with CSG activities	3.40	3.59	3.59	3.60		3.50	3.77	**
Is adapting to CSG activities	3.44	3.65	3.66	3.53		3.54	3.78	**
How often do you do the following? [scale: 1=never; 2=seldom; 3 = sometimes; 4 = quite often; 5=very often]								
Think about CSG in your region	2.55	2.93	3.04	2.24	**	2.69	2.91	
Talk about CSG in your region	2.51	2.90	2.78	2.35	*	2.64	2.87	
How frequently do you use the following information sources to get your information about the local CSG industry? [scale: 1=never; 2=seldom; 3 = sometimes; 4 = quite often; 5=very often]								
Government sources	1.96	2.06	1.88	2.04		1.99	2.12	
Research organisations	2.00	2.06	1.96	1.96		2.01	2.12	
Anti-CSG groups	1.69	1.52	1.60	1.64		1.62	1.61	
Industry sources	2.33	2.46	2.41	2.17		2.36	2.71	**
Local papers and radio	2.28	2.32	2.07	2.28		2.26	2.51	*
Social media (e.g. Facebook)	2.50	2.17	2.35	2.24		2.35	2.38	
Word of mouth (e.g. family and friends)	3.04	3.16	3.01	2.65		3.02	3.33	**
How much do you feel you know about the local coal seam gas industry? [scale: 1= very little to 5 = a lot]								
How much do you feel you know about the local coal seam gas industry?	2.85	3.24	3.31	3.00		3.04	3.23	
How much more information do you feel you need about the local CSG industry? [scale: 1= very little to 5 = a lot more]								
How much more information do you feel you need about the local CSG industry?	2.97	2.82	2.87	2.65		2.87	2.85	
On a scale of 1 to 5, how interested are you in the CSG discussion? [scale: 1= not at all interested to 5 = very interested]								
How interested are you in the CSG discussion?	3.06	3.03	3.25	2.99		3.07	3.24	
How much do you agree that CSG has an important role to play in the energy transition? [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]								
CSG has an important role to play in the energy transition	3.54	3.63	3.85	3.69		3.62	3.87	**

Note: p-values *p<.05, **p<.01, ***p<.001

Table 14 Perceptions and attitudes about CSG and the sector by region and subregion in 2024 (percentages)

	Subregions Western Downs					Regions		
	Dalby	Chinchilla	Miles-Wandoan	Tara		Western Downs	Eastern Maranoa	
Which best describes your attitude to coal seam gas in this region?								
I reject it	9.3	6.7	3.3	10.7	**	7.9	5.1	**
I tolerate it	36.7	23.3	32.1	29.9		31.3	26.2	
I accept it	37.1	33.9	26.0	27.1		33.5	32.8	
I approve of it	5.7	19.5	10.3	16.5		11.7	23.5	
I embrace it	11.2	16.7	28.3	15.8		15.6	12.3	
Choosing one of the following responses, which best describes how [NAME] and surrounds is dealing with the CSG activities?								
Resisting it	4.5	1.4	0.0	4.7		3.0	0.0	
Not coping	3.9	1.3	0.8	2.1		2.5	0.0	
Only just coping	23.9	15.8	19.1	25.9		21.2	15.9	
Adapting to the changes	60.5	70.6	67.8	61.3		64.5	72.9	
Changing into something different but better.	7.3	10.8	12.3	5.9		8.8	11.2	
Now thinking about other energy developments in your region, what is your overall attitude toward? [scale: 1=reject it; 2=tolerate it, 3= accept it, 4= approve of it, 5 = embrace it]								
Solar farms								
1 - Reject it	18.8	15.7	34.0	11.0	*	18.9	21.6	
2 - Tolerate it	15.5	17.2	25.1	21.9		18.1	20.7	
3 - Accept it	27.5	28.2	15.5	17.5		24.9	28.9	
4 - Approve of it	21.6	21.4	13.6	16.6		19.9	16.7	
5 - Embrace it	16.6	17.5	11.9	33.0		18.3	12.1	
Wind farms								
1 - Reject it	23.9	19.6	30.7	24.0	**	23.5	34.0	
2 - Tolerate it	15.9	15.2	32.9	24.7		19.0	20.2	
3 - Accept it	29.7	31.0	13.9	13.7		26.1	18.9	
4 - Approve of it	14.8	22.4	11.6	10.5		16.1	16.6	
5 - Embrace it	15.8	11.7	11.0	27.1		15.4	10.3	
Transmission lines								
1 - Reject it	7.8	12.0	12.6	7.5		9.7	11.5	
2 - Tolerate it	17.2	13.4	27.0	20.4		17.8	18.4	
3 - Accept it	46.7	44.1	39.8	34.0		43.4	46.1	
4 - Approve of it	13.4	24.2	12.7	16.4		16.9	14.1	
5 - Embrace it	14.9	6.3	7.8	21.7		12.3	9.9	

A.8 Survey item means by region by year

A.8.1 Western Downs

Table 15 Community wellbeing survey items for Western Downs region by Year (means)

	Western Downs				
	2014	**2016**	**2018**	**2024**	
Thinking about [NAME] and surrounds, how much do you agree with the following statements? [On a scale from 1 = strongly disagree to 5 = strongly agree]					
I feel that I belong to this area	4.20	4.15	4.20	4.34	
I am pleased to come back to the area, if I go away	4.20	4.14	4.16	4.41	***
Overall, I feel very attached to this local area	4.05	4.01	4.00	4.20	
Now a few questions about personal safety. On a scale from 1 to 5, how much do you agree that:					
It is safe to be alone at home during the night	4.32	4.10	4.20	3.96	***
It is safe to walk alone outside at night	3.66	3.60	3.63	3.49	
It is safe to leave the car on the side of the road at night	3.09	2.94	3.01	2.82	
Overall, I feel safe living in the area	4.31	4.06	4.21	4.08	**
Thinking about your household income, how much do you agree that:					
Your income is enough for household expenses	3.63	3.72	3.69	3.48	
Your income is enough for the lifestyle you enjoy	3.66	3.58	3.66	3.37	*
Your rent or mortgage repayments impact greatly on your household finances	3.26	3.28	2.79	3.11	***
Overall, I am satisfied that my income covers living expenses	3.77	3.83	3.82	3.58	*
Now on a scale from 1 = very dissatisfied to 5 = very satisfied and thinking about your health and wellbeing, how satisfied are you with:					
Your diet and eating habits	3.92	3.81	3.84	3.70	*
Your exercise habits	3.43	3.43	3.43	3.30	
Your physical health	3.78	3.66	3.74	3.54	*
Your mental health	4.25	4.05	4.09	3.83	***
Your job security, if applicable	3.94	3.82	3.82	3.85	
Your work-life balance	3.54	3.54	3.46	3.43	
Overall, how satisfied are you with your health and wellbeing	3.97	3.85	3.92	3.82	
Thinking of services and facilities for your local area, how satisfied are you with:					
Local schools	3.83	3.88	3.63	3.55	***
Childcare facilities	3.40	3.51	3.32	3.23	*
Sports and leisure facilities	3.57	3.65	3.52	3.41	*
Cultural facilities	3.34	3.35	3.22	3.18	
Shopping for food and everyday items	3.75	3.77	3.77	3.76	
Other shopping (e.g., clothes and household goods)	2.85	2.89	2.86	2.96	
Medical and health services	3.23	3.54	3.34	3.07	***
Community support services (e.g. meals on wheels, youth workers)	3.66	3.72	3.37	3.33	***
Overall, how satisfied are you with the services and facilities of [main town]	3.54	3.63	3.55	3.49	
Thinking about [NAME]'s general appearance, how satisfied are you with the following:					
Cleanliness in the town	3.67	3.59	3.59	3.92	***
Greenery and Parks in the town	3.52	3.68	3.65	4.04	***
Overall, how satisfied are you with the general appearance of the town	3.62	3.66	3.60	4.01	***
Thinking about the roads outside of [NAME], how satisfied are you with the:					
Condition of the roads	2.38	2.45	2.29	2.00	***
Safety on the roads	2.46	2.75	2.70	2.49	**
Amount of traffic on roads	2.47	3.10	3.08	3.15	***
Thinking about pollution in the general environment, how satisfied are you with the:					
The roads overall	2.50	2.69	2.63	2.39	**
Level of dust	3.23	3.48	3.45	3.47	*
Level of noise	3.76	3.89	4.01	3.95	*
Quality of the air				4.08	
Overall quality of the general environment around [main town]	3.65	4.09	3.94	4.00	***
Now thinking about the natural environment around [NAME], how satisfied are you with the management of the:					
Quality of underground water for the future	2.54	2.58	2.62	3.07	***

	Western Downs				
	2014	**2016**	**2018**	**2024**	
Nature reserves for the future	2.97	3.17	3.07	3.32	***
Sustainability of local farming land for the future	2.85	3.02	3.26	3.41	***
The overall management of the natural environment for the future	2.90	3.01	3.09	3.29	***
Thinking about how decisions are made affecting [NAME] and surrounds, how much do you agree that:					
The local council informs residents of important developments	2.75	2.64	2.42	2.65	**
There are opportunities for your voice to be heard on issues important to you	2.83	2.79	2.55	2.74	*
Overall, I am satisfied with how decisions are made that affect [main town]	2.65	2.68	2.49	2.69	
Regarding employment and business opportunities in the local area, how much do you agree that:					
There are good job opportunities	3.14	2.29	2.53	3.33	***
Local businesses are doing well	3.15	2.26	2.64	3.30	***
Overall, I am satisfied with job and business opportunities in my local area	3.16	2.36	2.60	3.35	***
Thinking about community spirit in your local area, how much do you agree that:					
People can rely upon one another for help	3.82	3.77	3.70	3.75	
People have friendly relationships	3.89	3.86	3.86	3.85	
There is good community spirit around here	4.08	4.13	4.08	3.91	**
Overall, I am satisfied with community spirit in the area	3.92	3.90	3.91	3.90	
Thinking about how inclusive your local community is, how much do you agree that:					
Your community is welcoming of newcomers	3.56	3.47	3.52	3.66	
Your community is tolerant of people with different views				3.29	
Your local community is welcoming of people of different cultures	3.56	3.25	3.50	3.62	***
Overall, your community includes everyone no matter who they are	3.66	3.43	3.52	3.66	*
Thinking about levels of trust in your local area, how much do you agree that:					
There are local community leaders you can trust	3.33	3.23	3.19	3.27	
Your local council can be trusted	3.04	3.01	2.87	2.96	
People that you see around [main town] can generally be trusted	3.40	3.41	3.31	3.35	
Overall, I am satisfied with levels of trust in my local area	3.25	3.18	3.35	3.46	**
Thinking now about participating in local community groups around [NAME] (like school, sport, church and service groups), how much do you agree that:					
You regularly help out a local group as a volunteer (e.g., once a week)	2.93	2.87	2.93	2.89	
You have attended several community events in the past year	3.33	3.43	3.42	3.48	
You are a very active member of a local organisation or club	3.01	3.04	2.99	3.04	
Overall, you participate regularly in a variety of community activities	2.99	3.09	3.01	3.13	
Now we have some questions about everyday interactions with people, other than those you may live with. How much do you agree that you do the following with others regularly around [NAME]:					
Visit someone's home	3.36	3.31	3.19	3.31	
Go out together socially	3.15	3.09	3.12	3.22	
Speak or text on the phone	3.66	3.66	3.76	4.03	***
Overall, I am satisfied with the amount of my social interaction in the local area	3.89	3.81	3.77	4.01	*
Thinking about overall community wellbeing around [NAME] and surrounds, how much do you agree that:					
This community is suitable for young children	4.00	3.96	3.81	3.78	*
This community is suitable for teenagers	3.37	3.41	3.09	3.23	**
This community is suitable for seniors	3.97	3.97	3.98	3.91	
Overall, this local area offers a good quality of life	4.08	4.01	4.01	4.02	
Overall, I am happy living in this local area	4.15	4.08	4.11	4.22	
Imagining what it might be like in 3 years time, how much do you agree that:					
Overall, I will be happy living in this local area	3.82	3.67	3.75	3.92	*
Overall, this local area will offer a good quality of life	3.64	3.70	3.85	3.95	***

Note: p-values *p<.05, **p<.01, ***p<.001

Table 16 Expected future community wellbeing item for Western Downs (percentages)

	Western Downs			
	2014	2016	2018	2024
Over the next 3 years, do you think community wellbeing will [respondent to select one of the following]:				
Decline		27.4	18.8	19.0 *
Stay about the same		57.9	60.3	60.6
Improve		14.8	20.9	20.4

Note: p-values *p<.05, **p<.01, ***p<.001

Table 17 Perceptions and attitudes about CSG and the sector for Western Downs region by Year (means)

	Western Downs			
	2014	2016	2108	2024
Thinking about CSG development, how concerned are you about the following **[**scale: 1 = not at all concerned; 5 = very concerned]:				
Reducing farm property values			3.61	2.93 ***
co-existence with agriculture				2.99
Risk of fire			3.02	2.83
Depletion of underground water			3.79	3.43 **
Water contamination			3.82	3.50 **
Air contamination			3.21	2.88 **
The natural environment (e.g., state forests)			3.38	3.06 **
Disposal of salt and brine			3.57	3.25 **
Dust, noise, and light pollution			3.10	2.84 *
Traffic on the roads			3.16	3.09
Health impacts			3.26	2.94 **
Cost of housing (i.e., renting or buying)			3.41	3.54
Community division over CSG development			3.21	3.11
Pressure on services and facilities			3.12	3.10
Overall, how concerned are you about negative impacts			3.44	3.12 **
Thinking about possible future issues, how concerned are you about [scale: 1 =not at all concerned; 5 =very concerned]:				
Changes in CSG operators over time			3.28	2.99 **
Additional hydraulic fracturing (fracking) over time			3.64	3.36 *
Land subsidence (sinking of the ground over time)				3.37
CSG well integrity over time (e.g., leaks)			3.53	3.37
CSG development extending into more farming areas			3.71	3.56
Overall, how concerned are you be about possible future issues with CSG			3.59	3.29 **
How much do you agree that risks to underground water from CSG activities [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]:				
Are understood by science			2.81	2.97
Are understood by the community			2.49	2.61
Are manageable			2.83	2.93
Are potentially catastrophic			3.28	3.20
How much do you agree that CSG development provides significant local benefits for [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]:				
Local employment			3.16	3.67 ***
Opportunities for young people to stay in the region			2.99	3.53 ***
Local business opportunities			3.07	3.43 ***
Corporate support for local community activities (e.g. sponsoring local clubs)			3.52	3.73 *
Additional local services, facilities, and infrastructure			3.11	3.30 *
Diversifying local skills in the region				3.35
Long-lasting benefits for the region				3.17
Creating new industries in the region				3.15
Overall, CSG development brings significant benefits to the local community			3.06	3.31 **

	Western Downs				
	2014	2016	2108	2024	
Now thinking more broadly about the potential benefits of CSG, how much do you agree that CSG extraction provides wider societal benefits, such as					
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]					
A transition fuel between coal and renewable energy sources			2.96	3.22	**
Improving energy supply in Australia			3.08	3.28	*
Boosting the wider Australian economy			3.25	3.47	**
Overall, CSG in the region provides significant benefits for wider society			3.13	3.28	
How much do you agree with the following statements?					
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]					
I consider it fair to live near CSG if I were compensated accordingly			3.28	3.40	
I consider it fair to live near CSG if local council is compensated accordingly			2.63	2.93	**
My community receives a fair share of the benefits from the CSG development			3.09	3.18	
Thinking about how decisions might be made about this CSG development, how much do you agree that CSG companies					
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]					
Listen to and respect the community's opinions			2.53	2.91	***
Inform residents of important developments regarding the site			2.70	3.01	**
Give opportunities for local people to participate in their decisions			2.37	2.79	***
How much do you agree that CSG companies					
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]					
Are accessible or easy to contact			2.74	2.95	*
Are open, honest and transparent			2.35	2.66	***
Engage in genuine two-way dialogue			2.51	2.78	**
Thinking about how CSG companies are governed by state regulators, how much do you agree that:					
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]					
They hold CSG companies accountable for any breaches			2.69	2.86	
They inform local communities of any issues with CSG activities as they arise			2.53	2.70	
They listen to and responds to any community concerns			2.54	2.80	**
CSG companies comply with regulations			3.01	3.27	**
CSG companies comply with land access agreements			2.98	3.30	***
Overall, you can trust state government bodies overseeing CSG development			2.53	2.52	
To act in the local community's best interests			2.55	2.89	***
To act responsibly			2.85	3.14	**
Their capability			2.86	3.30	***
Overall, to what extent can you trust CSG companies			2.63	2.96	***
Thinking about CSG development in this region					
[scale: 1=Not at all accepting; 3=Somewhat accepting; 5=very accepting]:					
How accepting are you of this CSG activity?			3.16	3.34	
Thinking about CSG development in this region, how much do you agree you feel?					
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]					
Pleased	3.01	2.85	2.82	3.12	**
Optimistic	2.86	2.68	2.91	3.07	**
Angry	2.69	2.71	2.28	2.10	***
Worried	3.00	3.10	2.82	2.65	***
How much do you agree that [NAME] and surrounds					
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]					
Is coping with CSG activities		3.02	2.95	3.50	***
Is adapting to CSG activities		3.08	3.11	3.54	***
How often do you do the following?					
[scale: 1=never; 2=seldom; 3 = sometimes; 4 = quite often; 5=very often]					
Think about CSG in your region				2.69	
Talk about CSG in your region				2.64	
How frequently do you use the following information sources to get your information about the local CSG industry?					
[scale: 1=never; 2=seldom; 3 = sometimes; 4 = quite often; 5=very often]					
Government sources			2.27	1.99	**
Research organisations			2.10	2.01	
Anti-CSG groups			1.58	1.62	
Industry sources			2.34	2.36	
Local papers and radio			3.03	2.26	***

	Western Downs				
	2014	**2016**	**2108**	**2024**	
Social media (e.g. Facebook)			2.33	2.35	
Word of mouth (e.g. family and friends)			3.19	3.02	
How much do you feel you know about the local coal seam gas industry? [scale: 1= very little to 5 = a lot]					
How much do you feel you know about the local coal seam gas industry?			3.06	3.04	
How much more information do you feel you need about the local CSG industry? [scale: 1= very little to 5 = a lot more]					
How much more information do you feel you need about the local CSG industry?			3.33	2.87	***
On a scale of 1 to 5, how interested are you in the CSG discussion? [scale: 1= not at all interested to 5 = very interested]					
How interested are you in the CSG discussion?				3.07	
How much do you agree that CSG has an important role to play in the energy transition? [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]					
CSG has an important role to play in the energy transition				3.62	

Note: p-values *p<.05, **p<.01, ***p<.001

Table 18 Perceptions and attitudes about CSG and the sector for Western Downs region by Year (percentages)

	Western Downs				
	2014	**2016**	**2018**	**2024**	
Which best describes your attitude to coal seam gas in this region?					
I reject it	8.8	13.4	8.9	7.9	*
I tolerate it	32.2	33.3	33.1	31.3	
I accept it	35.5	33.4	30.4	33.5	
I approve of it	14.8	12.9	17.6	11.7	
I embrace it	8.6	7.0	10.0	15.6	
Choosing one of the following responses, which best describes how [NAME] and surrounds is dealing with the CSG activities?					
Resisting it	6.9	4.7	4.5	3.0	***
Not coping	8.1	6.7	5.7	2.5	
Only just coping	31.7	36.6	40.0	21.2	
Adapting to the changes	47.7	46.7	46.1	64.5	
Changing into something different but better.	5.6	5.3	3.7	8.8	
Now thinking about other energy developments in your region, what is your overall attitude toward?					
Solar farms					
1 - Reject it				18.9	
2 - Tolerate it				18.1	
3 - Accept it				24.9	
4 - Approve of it				19.9	
5 - Embrace it				18.3	
Wind farms					
1 - Reject it				23.5	
2 - Tolerate it				19.0	
3 - Accept it				26.1	
4 - Approve of it				16.1	
5 - Embrace it				15.4	
Transmission lines					
1 - Reject it				9.7	
2 - Tolerate it				17.8	
3 - Accept it				43.4	
4 - Approve of it				16.9	
5 - Embrace it				12.3	

Note: p-values *p<.05, **p<.01, ***p<.001

A.8.2 Eastern Maranoa

Table 19 Community wellbeing survey items for eastern Maranoa region by Year (means)

	eastern Maranoa			
	2016	**2018**	**2024**	
Thinking about [NAME] and surrounds, how much do you agree with the following statements? On a scale from 1 = strongly disagree to 5 = strongly agree.				
I feel that I belong to this area	4.70	4.46	4.45	*
I am pleased to come back to the area, if I go away	4.50	4.40	4.38	
Overall, I feel very attached to this local area	4.48	4.39	4.29	
Now a few questions about personal safety. On a scale from 1 to 5, how much do you agree that:				
It is safe to be alone at home during the night	4.68	4.47	4.25	***
It is safe to walk alone outside at night	4.31	4.07	3.79	***
It is safe to leave the car on the side of the road at night	3.69	3.42	3.16	**
Overall, I feel safe living in the area	4.69	4.49	4.35	***
Thinking about your household income, how much do you agree that:				
Your income is enough for household expenses	3.91	3.67	3.63	
Your income is enough for the lifestyle you enjoy	3.62	3.67	3.62	
Your rent or mortgage repayments impact greatly on your household finances	3.50	3.07	3.13	
Overall, I am satisfied that my income covers living expenses	4.10	3.88	3.73	*
Thinking about your health and wellbeing, how satisfied are you with [on a scale from 1 = very dissatisfied to 5 = very satisfied]:				
Your diet and eating habits	3.92	3.65	3.87	*
Your exercise habits	3.24	3.22	3.32	
Your physical health	3.94	3.65	3.79	*
Your mental health	4.26	4.03	3.92	*
Your job security, if applicable	3.96	3.82	4.29	***
Your work-life balance	3.67	3.54	3.62	
Overall, how satisfied are you with your health and wellbeing	4.05	3.91	3.90	
Thinking of services and facilities for your local area, how satisfied are you with:				
Local schools	4.17	3.77	3.69	**
Childcare facilities	3.71	3.43	3.19	*
Sports and leisure facilities	3.70	3.70	3.69	
Cultural facilities	3.47	3.38	3.65	*
Shopping for food and everyday items	3.49	3.38	3.52	
Other shopping (e.g., clothes and household goods)	2.87	2.77	2.99	
Medical and health services	3.84	3.55	3.46	*
Community support services (e.g. meals on wheels, youth workers)	3.86	3.63	3.51	*
Overall, how satisfied are you with the services and facilities of [main town]	3.69	3.66	3.78	
Thinking about [NAME]'s general appearance, how satisfied are you with the following:				
Cleanliness in the town	3.56	3.78	3.89	
Greenery and Parks in the town	3.52	3.66	3.86	*
Overall, how satisfied are you with the general appearance of the town	3.53	3.79	3.87	
Thinking about the roads outside of [NAME], how satisfied are you with the:				
Condition of the roads	2.57	2.68	2.45	
Safety on the roads	3.13	3.05	2.88	
Amount of traffic on roads	3.54	3.30	3.32	
Thinking about pollution in the general environment, how satisfied are you with the:				
The roads overall	2.87	2.88	2.75	
Level of dust	3.61	3.58	3.73	
Level of noise	4.06	4.12	4.12	
Quality of the air			4.37	
Overall quality of the general environment around [main town]	4.38	4.15	4.19	
Now thinking about the natural environment around [NAME], how satisfied are you with the management of the:				
Quality of underground water for the future	2.74	2.94	3.30	***
Nature reserves for the future	3.13	3.39	3.49	

	eastern Maranoa			
	2016	2018	2024	
Sustainability of local farming land for the future	3.08	3.21	3.68	***
The overall management of the natural environment for the future	3.08	3.34	3.53	*
Thinking about how decisions are made affecting [NAME] and surrounds, how much do you agree that:				
The local council informs residents of important developments	2.85	2.94	3.28	**
There are opportunities for your voice to be heard on issues important to you	2.80	2.99	3.37	***
Overall, I am satisfied with how decisions are made that affect [main town]	2.88	2.85	3.27	***
Regarding employment and business opportunities in the local area, how much do you agree that:				
There are good job opportunities	2.78	3.09	3.98	***
Local businesses are doing well	2.44	2.98	3.55	***
Overall, I am satisfied with job and business opportunities in my local area	2.74	3.01	3.76	***
Thinking about community spirit in your local area, how much do you agree that:				
People can rely upon one another for help	4.11	3.88	4.14	*
People have friendly relationships	4.25	3.97	4.17	*
There is good community spirit around here	4.52	4.13	4.14	***
Overall, I am satisfied with community spirit in the area	4.31	4.01	4.16	*
Thinking about how inclusive your local community is, how much do you agree that:				
Your community is welcoming of newcomers	4.07	3.79	3.89	
Your community is tolerant of people with different views			3.46	
Your local community is welcoming of people of different cultures	3.95	3.71	3.93	*
Overall, your community includes everyone no matter who they are	4.00	3.80	3.82	
Thinking about levels of trust in your local area, how much do you agree that:				
There are local community leaders you can trust	3.79	3.49	3.72	*
Your local council can be trusted	3.20	3.09	3.56	***
People that you see around [main town] can generally be trusted	3.78	3.53	3.80	**
Overall, I am satisfied with levels of trust in my local area	3.49	3.52	3.88	***
Thinking now about participating in local community groups around [NAME] (like school, sport, church and service groups), how much do you agree that:				
You regularly help out a local group as a volunteer (e.g., once a week)	3.16	3.18	3.11	
You have attended several community events in the past year	3.76	3.81	3.89	
You are a very active member of a local organisation or club	3.10	3.29	3.31	
Overall, you participate regularly in a variety of community activities	3.38	3.35	3.47	
Now we have some questions about everyday interactions with people, other than those you may live with. How much do you agree that you do the following with others regularly around [NAME]:				
Visit someone's home	3.36	3.24	3.49	
Go out together socially	3.28	3.18	3.54	*
Speak or text on the phone	3.76	3.84	4.14	*
Overall, I am satisfied with the amount of my social interaction in the local area	3.97	3.89	4.14	*
Thinking about overall community wellbeing around [NAME] and surrounds, how much do you agree that:				
This community is suitable for young children	4.19	4.09	4.21	
This community is suitable for teenagers	3.58	3.40	3.65	
This community is suitable for seniors	4.31	3.99	4.20	**
Overall, this local area offers a good quality of life	4.20	4.09	4.31	*
Overall, I am happy living in this local area	4.42	4.26	4.41	
Imagining what it might be like in 3 years time, how much do you agree that:				
Overall, I will be happy living in this local area	3.99	3.91	4.13	
Overall, this local area will offer a good quality of life	4.10	3.94	4.20	*

Note: p-values *p>.05, **p<.01, ***p<.001

Table 20 Expected future community wellbeing item for eastern Maranoa (percentages)

	eastern Maranoa		
	2016	2018	2024
Over the next 3 years, do you think community wellbeing will [respondent to select one of the following]:			
Decline	20.7	15.4	11.3
Stay about the same	54.0	62.1	63.0
Improve	25.3	22.5	25.7

Note: p-values *p>.05, **p<.01, ***p<.001

Table 21 Perceptions and attitudes about CSG and the sector for eastern Maranoa region by Year (means)

	eastern Maranoa		
	2016	2018	2024
Thinking about CSG development, how concerned are you about the following [scale: 1 = not at all concerned; 5 = very concerned]:			
Reducing farm property values	3.54	2.61	***
co-existence with agriculture		2.89	
Risk of fire	2.73	2.51	
Depletion of underground water	3.71	3.42	*
Water contamination	3.71	3.43	
Air contamination	2.83	2.62	
The natural environment (e.g., state forests)	3.13	2.83	*
Disposal of salt and brine	3.46	3.06	**
Dust, noise, and light pollution	2.86	2.58	*
Traffic on the roads	3.32	2.83	***
Health impacts	3.00	2.60	**
Cost of housing (i.e., renting or buying)	3.53	3.53	
Community division over CSG development	3.17	2.88	*
Pressure on services and facilities	3.30	3.00	*
Overall, how concerned are you about negative impacts	3.34	2.85	***
Thinking about possible future issues, how concerned are you about [scale: 1 =not at all concerned; 5 =very concerned]:			
Changes in CSG operators over time	3.29	2.74	***
Additional hydraulic fracturing (fracking) over time	3.42	3.18	
Land subsidence (sinking of the ground over time)		3.04	
CSG well integrity over time (e.g., leaks)	3.42	3.05	**
CSG development extending into more farming areas	3.55	3.18	**
Overall, how concerned are you be about possible future issues with CSG	3.48	3.02	***
How much do you agree that risks to underground water from CSG activities [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]:			
Are understood by science	2.91	3.14	
Are understood by the community	2.62	2.75	
Are manageable	2.89	3.18	*
Are potentially catastrophic	3.18	3.26	
How much do you agree that CSG development provides significant local benefits for [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]:			
Local employment	3.22	3.93	***
Opportunities for young people to stay in the region	3.09	3.80	***
Local business opportunities	3.27	3.75	***
Corporate support for local community activities (e.g. sponsoring local clubs)	3.56	4.01	***
Additional local services, facilities, and infrastructure	3.18	3.59	***
Diversifying local skills in the region		3.47	
Long-lasting benefits for the region		3.47	
Creating new industries in the region		3.46	
Overall, CSG development brings significant benefits to the local community	3.18	3.62	***

	eastern Maranoa			
	2016	2018	2024	
Now thinking more broadly about the potential benefits of CSG, how much do you agree that CSG extraction provides wider societal benefits, such as				
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]				
A transition fuel between coal and renewable energy sources		3.07	3.46	***
Improving energy supply in Australia		3.11	3.56	***
Boosting the wider Australian economy		3.27	3.80	***
Overall, CSG in the region provides significant benefits for wider society		3.14	3.67	***
How much do you agree with the following statements?				
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]				
I consider it fair to live near CSG if I were compensated accordingly		3.44	3.74	*
I consider it fair to live near CSG if local council is compensated accordingly		3.06	3.49	***
My community receives a fair share of the benefits from the CSG development		3.12	3.51	**
Thinking about how decisions might be made about this CSG development, how much do you agree that CSG companies				
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]				
Listen to and respect the community's opinions		2.70	3.09	**
Inform residents of important developments regarding the site		2.87	3.07	
Give opportunities for local people to participate in their decisions		2.41	2.92	***
How much do you agree that CSG companies				
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]				
Are accessible or easy to contact		2.79	3.23	***
Are open, honest and transparent		2.52	2.84	**
Engage in genuine two-way dialogue		2.62	3.01	***
Thinking about how CSG companies are governed by state regulators, how much do you agree that:				
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]				
They hold CSG companies accountable for any breaches		2.95	3.08	
They inform local communities of any issues with CSG activities as they arise		2.60	2.87	*
They listen to and responds to any community concerns		2.55	3.05	***
CSG companies comply with regulations		3.24	3.50	*
CSG companies comply with land access agreements		3.29	3.57	*
Overall, you can trust state government bodies overseeing CSG development		2.51	2.73	
To act in the local community's best interests		2.62	3.05	***
To act responsibly		2.97	3.29	**
Their capability		2.91	3.51	***
Overall, to what extent can you trust CSG companies		2.73	3.14	***
Thinking about CSG development in this region				
[scale: 1=Not at all accepting; 3=Somewhat accepting; 5=very accepting]:				
How accepting are you of this CSG activity?		3.36	3.57	
Thinking about CSG development in this region, how much do you agree you feel?				
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]				
Pleased	3.21	3.05	3.26	
Optimistic	3.03	3.10	3.33	
Angry	2.68	2.21	1.96	***
Worried	3.04	2.67	2.51	*
How much do you agree that [NAME] and surrounds				
[scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]				
Is coping with CSG activities	3.23	3.21	3.77	***
Is adapting to CSG activities	3.28	3.34	3.78	***
How often do you do the following?				
[scale: 1=never; 2=seldom; 3 = sometimes; 4 = quite often; 5=very often]				
Think about CSG in your region			2.91	
Talk about CSG in your region			2.87	
How frequently do you use the following information sources to get your information about the local CSG industry?				
[scale: 1=never; 2=seldom; 3 = sometimes; 4 = quite often; 5=very often]				
Government sources		2.33	2.12	
Research organisations		2.19	2.12	
Anti-CSG groups		1.63	1.61	
Industry sources		2.74	2.71	
Local papers and radio		3.39	2.51	***
Social media (e.g. Facebook)		2.56	2.38	

	eastern Maranoa			
	2016	2018	2024	
Word of mouth (e.g. family and friends)		3.42	3.33	
How much do you feel you know about the local coal seam gas industry? [scale: 1= very little to 5 = a lot]				
How much do you feel you know about the local coal seam gas industry?		3.24	3.23	
How much more information do you feel you need about the local CSG industry? [scale: 1= very little to 5 = a lot more]				
How much more information do you feel you need about the local CSG industry?		3.43	2.85	***
On a scale of 1 to 5, how interested are you in the CSG discussion? [scale: 1= not at all interested to 5 = very interested]				
How interested are you in the CSG discussion?			3.24	
How much do you agree that CSG has an important role to play in the energy transition? [scale: 1=strongly disagree; 3=neither agree nor disagree; 5=strongly agree]				
CSG has an important role to play in the energy transition			3.87	

Note: p-values *p<.05, **p<.01, ***p<.001

Table 22 Perceptions and attitudes about CSG and the sector for eastern Maranoa region by Year (percentages)

	eastern Maranoa			
	2016	2018	2024	
Which best describes your attitude to coal seam gas in this region?				
I reject it	7.6	6.9	5.1	
I tolerate it	25.7	21.3	26.2	
I accept it	40.9	38.3	32.8	
I approve of it	13.3	22.3	23.5	
I embrace it	12.6	11.3	12.3	
Choosing one of the following responses, which best describes how [NAME] and surrounds is dealing with the CSG activities?				
Resisting it	0.8	4.6	0.0	***
Not coping	4.3	7.0	0.0	
Only just coping	28.4	28.3	15.9	
Adapting to the changes	59.0	53.3	72.9	
Changing into something different but better.	7.5	6.8	11.2	
Now thinking about other energy developments in your region, what is your overall attitude toward? [scale: 1=reject it; 2=tolerate it, 3= accept it, 4= approve of it, 5 = embrace it]				
Solar farms				
1 - Reject it			21.6	
2 - Tolerate it			20.7	
3 - Accept it			28.9	
4 - Approve of it			16.7	
5 - Embrace it			12.1	
Wind farms				
1 - Reject it			34.0	
2 - Tolerate it			20.2	
3 - Accept it			18.9	
4 - Approve of it			16.6	
5 - Embrace it			10.3	
Transmission lines				
1 - Reject it			11.5	
2 - Tolerate it			18.4	
3 - Accept it			46.1	
4 - Approve of it			14.1	
5 - Embrace it			9.9	

Note: p-values *p<.05, **p<.01, ***p<.001

A.9 Tables of geographic and locational differences

Table 23 Differences by year: Western Downs region

Community Wellbeing	**2014**	**2016**	**2018**	**2024**	
Personal safety	3.85	3.68	3.76	3.59	**
Individual health	3.84	3.75	3.76	3.64	**
Income sufficiency	3.69	3.71	3.72	3.48	*
Services and facilities	3.45	3.54	3.40	3.33	**
Town appearance	3.60	3.64	3.61	3.99	***
Roads	2.46	2.74	2.68	2.51	***
Environmental quality	3.55	3.82	3.80	3.80	***
Environmental management	2.82	2.97	3.01	3.27	***
Local decision making and citizen voice	2.82	2.78	2.58	2.76	*
Employment and business opportunities	3.15	2.31	2.59	3.33	***
Community spirit	3.93	3.91	3.89	3.85	
Community cohesion	3.59	3.38	3.52	3.65	**
Local trust	3.33	3.27	3.28	3.36	
Community participation	3.06	3.11	3.09	3.13	
Social interaction	3.51	3.46	3.46	3.64	
Community wellbeing	3.91	3.88	3.80	3.83	
Expected future wellbeing	3.73	3.69	3.80	3.93	*
Place attachment	4.15	4.10	4.12	4.32	**
Community coping and adapting to CSG development	.	3.05	3.03	3.52	***
How [main town] and surrounds is dealing with the CSG activities?					
Resisting it	(6.9%)	(4.7%)	(4.5%)	(3.0%)	***
Not coping	(8.1%)	(6.7%)	(5.7%)	(2.5%)	
Only just coping	(31.7%)	(36.6%)	(40.0%)	(21.2%)	
Adapting to the changes	(47.7%)	(46.7%)	(46.1%)	(64.5%)	
Changing into something different but better	(5.6%)	(5.3%)	(3.7%)	(8.8%)	
Perceptions and attitudes about CSG and the sector	**2014**	**2016**	**2018**	**2024**	
Perceived impacts	.	.	3.41	3.17	**
Perceived benefits	.	.	3.13	3.42	***
Distributional fairness	.	.	3.00	3.17	*
Relationship quality	.	.	2.53	2.80	**
Procedural fairness	.	.	2.53	2.90	***
Trust in CSG companies	.	.	2.72	3.07	***
Governance	.	.	2.71	2.91	*
Importance of CSG in energy transition	.	.	.	3.62	
Knowledge confidence	.	.	3.06	3.04	
Information need	.	.	3.33	2.87	***
Interest in CSG discussion	4.21	3.94	.	3.07	***
Feelings toward CSG	3.05	2.93	3.16	3.36	***
Which best describes your attitude to coal seam gas in this region?					
I reject it	(8.8%)	(13.4%)	(8.9%)	(7.9%)	*
I tolerate it	(32.2%)	(33.3%)	(33.1%)	(31.3%)	
I accept it	(35.5%)	(33.4%)	(30.4%)	(33.5%)	
I approve of it	(14.8%)	(12.9%)	(17.6%)	(11.7%)	
I embrace it	(8.6%)	(7.0%)	(10.0%)	(15.6%)	

Note: p-values *p>.05, **p<.01, ***p<.001

Table 24 Differences by year: eastern Maranoa region

Community Wellbeing	**2016**	**2018**	**2024**	
Personal safety	4.35	4.11	3.89	***
Individual health	3.88	3.69	3.82	*
Income sufficiency	3.88	3.74	3.66	
Services and facilities	3.62	3.47	3.50	
Town appearance	3.54	3.74	3.87	*
Roads	3.01	2.98	2.85	
Environmental quality	4.02	3.95	4.02	
Environmental management	2.99	3.22	3.50	***
Local decision making and citizen voice	2.93	2.97	3.37	***
Employment and business opportunities	2.65	3.03	3.76	***
Community spirit	4.30	4.00	4.15	*
Community cohesion	4.01	3.77	3.88	
Local trust	3.70	3.52	3.80	**
Community participation	3.33	3.41	3.44	
Social interaction	3.59	3.54	3.83	*
Community wellbeing	4.14	3.97	4.16	*
Expected future wellbeing	4.04	3.92	4.17	*
Place attachment	4.56	4.42	4.38	
Community coping and adapting to CSG development	3.25	3.28	3.78	***
How [main town] and surrounds is dealing with the CSG activities?				
Resisting it	(0.8%)	(4.6%)	(0.0%)	***
Not coping	(4.3%)	(7.0%)	(0.0%)	
Only just coping	(28.4%)	(28.3%)	(15.9%)	
Adapting to the changes	(59.0%)	(53.3%)	(72.9%)	
Changing into something different but better	(7.5%)	(6.8%)	(11.2%)	
Perceptions and attitudes about CSG and the sector	**2016**	**2018**	**2024**	
Perceived impacts	.	3.30	2.94	***
Perceived benefits	.	3.21	3.72	***
Distributional fairness	.	3.21	3.58	***
Relationship quality	.	2.64	3.03	***
Procedural fairness	.	2.66	3.03	**
Trust in CSG companies	.	2.81	3.25	***
Governance	.	2.86	3.13	**
Importance of CSG in energy transition	.	.	3.87	
Knowledge confidence	.	3.24	3.23	
Information need	.	3.43	2.85	***
Interest in CSG discussion	4.02	.	3.24	***
Feelings toward CSG	3.14	3.32	3.53	*
Which best describes your attitude to coal seam gas in this region?				
I reject it	(7.6%)	(6.9%)	(5.1%)	
I tolerate it	(25.7%)	(21.3%)	(26.2%)	
I accept it	(40.9%)	(38.3%)	(32.8%)	
I approve of it	(13.3%)	(22.3%)	(23.5%)	
I embrace it	(12.6%)	(11.3%)	(12.3%)	

Note: p-values *p>.05, **p<.01, ***p<.001

Table 25 Differences by region in 2024

Community Wellbeing	Western Downs	Eastern Maranoa	
Personal safety	3.59	3.89	***
Individual health	3.64	3.82	**
Income sufficiency	3.48	3.66	
Services and facilities	3.33	3.50	*
Town appearance	3.99	3.87	
Roads	2.51	2.85	***
Environmental quality	3.80	4.02	**
Environmental management	3.27	3.50	**
Local decision making and citizen voice	2.76	3.37	***
Employment and business opportunities	3.33	3.76	***
Community spirit	3.85	4.15	***
Community cohesion	3.65	3.88	**
Local trust	3.36	3.80	***
Community participation	3.13	3.44	**
Social interaction	3.64	3.83	*
Community wellbeing	3.83	4.16	***
Expected future wellbeing	3.93	4.17	**
Place attachment	4.32	4.38	
Community coping and adapting to CSG development	3.52	3.78	***
How [main town] and surrounds is dealing with the CSG activities?			
Resisting it	(3.0%)	(0.0%)	**
Not coping	(2.5%)	(0.0%)	
Only just coping	(21.2%)	(15.9%)	
Adapting to the changes	(64.5%)	(72.9%)	
Changing into something different but better	(8.8%)	(11.2%)	

Perceptions and attitudes about CSG and the sector	Western Downs	Eastern Maranoa	
Perceived impacts	3.17	2.94	*
Perceived benefits	3.42	3.72	***
Distributional fairness	3.17	3.58	***
Relationship quality	2.80	3.03	*
Procedural fairness	2.90	3.03	
Trust in CSG companies	3.07	3.25	
Governance	2.91	3.13	*
Importance of CSG in energy transition	3.62	3.87	**
Knowledge confidence	3.04	3.23	
Information need	2.87	2.85	
Interest in CSG discussion	3.07	3.24	
Feelings toward CSG	3.36	3.53	*
Which best describes your attitude to coal seam gas in this region?			
I reject it	(7.9%)	(5.1%)	**
I tolerate it	(31.3%)	(26.2%)	
I accept it	(33.5%)	(32.8%)	
I approve of it	(11.7%)	(23.5%)	
I embrace it	(15.6%)	(12.3%)	

Note: p-values *p>.05, **p<.01, ***p<.001

Table 26 Differences by subregion in 2024

Community Wellbeing	Dalby	Chinchilla	Miles-Wandoan	Tara	
Personal safety	3.56	3.45	3.92	3.67	*
Individual health	3.62	3.64	3.79	3.57	
Income sufficiency	3.34	3.53	3.83	3.49	*
Services and facilities	3.46	3.29	3.05	3.28	**
Town appearance	3.92	4.09	4.10	3.89	
Roads	2.59	2.46	2.47	2.35	
Environmental quality	3.77	3.86	3.77	3.84	
Environmental management	3.26	3.29	3.17	3.40	
Local decision making and citizen voice	2.70	3.00	2.81	2.36	***
Employment and business opportunities	3.46	3.31	3.18	3.04	*
Community spirit	3.79	3.92	4.10	3.66	*
Community cohesion	3.61	3.69	3.74	3.58	
Local trust	3.30	3.54	3.46	3.04	**
Community participation	3.22	3.05	3.38	2.76	
Social interaction	3.77	3.64	3.45	3.37	*
Community wellbeing	3.77	3.89	3.98	3.79	
Expected future wellbeing	3.88	3.95	3.90	4.11	
Place attachment	4.34	4.24	4.39	4.33	
Coping and adapting	3.42	3.62	3.63	3.56	
How [main town] and surrounds is dealing with the CSG activities?					
Resisting it	(4.5%)	(1.4%)	(0.0%)	(4.7%)	
Not coping	(3.9%)	(1.3%)	(0.8%)	(2.1%)	
Only just coping	(23.9%)	(15.8%)	(19.1%)	(25.9%)	
Adapting to the changes	(60.5%)	(70.6%)	(67.8%)	(61.3%)	
Changing into something different but better.	(7.3%)	(10.8%)	(12.3%)	(5.9%)	
Perceptions and attitudes about CSG and the sector	**Dalby**	**Chinchilla**	**Miles-Wandoan**	**Tara**	
Perceived impacts	3.39	3.01	2.96	2.96	**
Perceived benefits	3.44	3.46	3.25	3.44	
Distributional fairness	3.09	3.26	3.23	3.16	
Relationship quality	2.78	2.77	2.77	2.93	
Procedural fairness	2.87	2.98	2.79	2.98	
Trust in CSG companies	2.99	3.16	3.13	3.12	
Governance	2.90	2.99	2.84	2.84	
Importance of CSG in energy transition	3.54	3.63	3.85	3.69	
Knowledge confidence	2.85	3.24	3.31	3.00	
Information need	2.97	2.82	2.87	2.65	
Interest in CSG discussion	3.06	3.03	3.25	2.99	
Feelings toward CSG	3.26	3.40	3.50	3.49	
Which best describes your attitude to coal seam gas in this region?					
I reject it	(9.3%)	(6.7%)	(3.3%)	(10.7%)	**
I tolerate it	(36.7%)	(23.3%)	(32.1%)	(29.9%)	
I accept it	(37.1%)	(33.9%)	(26.0%)	(27.1%)	
I approve of it	(5.7%)	(19.5%)	(10.3%)	(16.5%)	
I embrace it	(11.2%)	(16.7%)	(28.3%)	(15.8%)	

Note: p-values *p>.05, **p<.01, p<.001

Table 27 Differences by subregion and location in 2024

	Western Downs			Eastern Maranoa		
Community wellbeing	**In-town**	**Out-of-town**		**In-town**	**Out-of-town**	
Personal safety	3.54	3.68		3.86	3.95	
Individual health	3.57	3.76	*	3.74	3.97	*
Income sufficiency	3.37	3.66	*	3.60	3.80	
Services and facilities	3.39	3.23	*	3.53	3.44	
Town appearance	3.94	4.08		3.89	3.83	
Roads	2.60	2.34	**	2.96	2.62	*
Environmental quality	3.78	3.85		4.01	4.02	
Environmental management	3.32	3.19		3.54	3.43	
Local decision making and citizen voice	2.83	2.64		3.40	3.31	
Employment and business opportunities	3.38	3.24		3.79	3.71	
Community spirit	3.86	3.83		4.15	4.15	
Community cohesion	3.63	3.67		3.84	3.96	
Local trust	3.41	3.28		3.77	3.85	
Community participation	3.12	3.15		3.42	3.50	
Social interaction	3.69	3.56		3.83	3.83	
Community wellbeing	3.79	3.91		4.16	4.15	
Expected future wellbeing	3.86	4.06		4.18	4.15	
Place attachment	4.29	4.35		4.34	4.45	
Coping and adapting	3.57	3.45		3.85	3.64	
How [main town] and surrounds is dealing with the CSG activities?						
Resisting it	(3.3%)	(2.4%)		.	.	
Not coping	(3.1%)	(1.4%)		.	.	
Only just coping	(19.8%)	(23.6%)		(16.7%)	(14.4%)	
Adapting to the changes	(67.1%)	(60.0%)		(71.2%)	(76.1%)	
Changing into something different but better.	(6.7%)	(12.5%)		(12.1%)	(9.5%)	

	Western Downs			Eastern Maranoa		
Perceptions and attitudes about CSG and the sector	**In-town**	**Out-of-town**		**In-town**	**Out-of-town**	
Perceived impacts	3.16	3.19		2.82	3.18	*
Perceived benefits	3.48	3.31	*	3.73	3.70	
Distributional fairness	3.22	3.07		3.57	3.60	
Relationship quality	2.82	2.76		3.03	3.02	
Procedural fairness	2.96	2.81		3.06	2.97	
Trust in CSG companies	3.15	2.93		3.31	3.12	
Governance	2.98	2.78		3.20	3.00	
Importance of CSG in energy transition	3.69	3.51		3.88	3.84	
Knowledge confidence	3.00	3.12		3.17	3.35	
Information need	2.89	2.84		2.86	2.82	
Interest in CSG discussion	3.10	3.01		3.21	3.29	
Feelings toward CSG	3.39	3.32		3.57	3.44	
Which best describes your attitude to coal seam gas in this region?						
I reject it	(5.7%)	(11.8%)		(5.0%)	(5.4%)	
I tolerate it	(29.2%)	(34.9%)		(24.6%)	(29.3%)	
I accept it	(35.5%)	(30.0%)		(33.6%)	(31.4%)	
I approve of it	(12.3%)	(10.6%)		(24.7%)	(21.2%)	
I embrace it	(17.3%)	(12.7%)		(12.1%)	(12.7%)	

Note: p-values *p>.05, **p<.01, ***p<.001

Table 28 Farm owners with and without CSG activity (CSG negotiation experience, exploration or wells on farm) in 2024

	Farm CSG activity		
Perceptions and attitudes about CSG and the sector	**With**	**Without**	
Perceived impacts	3.24	3.33	
Perceived benefits	3.44	3.34	
Distributional fairness	3.22	3.11	
Relationship quality	2.82	2.72	
Procedural fairness	2.84	2.75	
Trust in CSG companies	2.88	2.88	
Governance	2.73	2.64	
Importance of CSG in energy transition	3.79	3.37	*
Knowledge confidence	3.70	3.17	**
Information need	3.06	3.02	
Interest in CSG discussion	3.88	2.93	***
Feelings toward CSG	3.27	3.23	
Which best describes your attitude to coal seam gas in this region?			
I reject it	(8.1%)	(14.0%)	
I tolerate it	(31.9%)	(31.3%)	
I accept it	(28.7%)	(34.6%)	
I approve of it	(12.1%)	(15.2%)	
I embrace it	(19.2%)	(4.8%)	

Note: p-values *p>.05, **p<.01, ***p<.001. Western Downs and eastern Maranoa combined to maximise sample (n=73 farm owners with CSG activity; n= 89 without CSG activity).

Table 29 Farm owners with CSG activity by year (CSG negotiation experience, exploration or wells on farm)

Perceptions and attitudes about CSG and the sector	**2018**	**2024**	
Perceived impacts	3.62	3.24	
Perceived benefits	3.06	3.44	*
Distributional fairness	2.90	3.22	
Relationship quality	2.30	2.82	**
Procedural fairness	2.26	2.84	**
Trust in CSG companies	2.42	2.88	*
Governance	2.33	2.73	*
Importance of CSG in energy transition	.	3.79	
Knowledge confidence	3.51	3.70	
Information need	3.62	3.06	*
Interest in CSG discussion	.	3.88	
Feelings toward CSG	2.86	3.27	
Which best describes your attitude to coal seam gas in this region?			
I reject it	(11.4%)	(8.1%)	
I tolerate it	(29.2%)	(31.9%)	
I accept it	(32.1%)	(28.7%)	
I approve of it	(20.8%)	(12.1%)	
I embrace it	(6.4%)	(19.2%)	

Note: p-values *p>.05, **p<.01, ***p<.001. Western Downs and eastern Maranoa combined to maximise sample (n=58 in 2018; n=73 in 2024).

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