Introduction

The Gladstone region population report, 2014 (the report) provides estimates of the population of non–resident fly-in/fly-out and drive-in/drive-out (FIFO/DIDO) workers who were on-shift in the region during the last week of June 2014. Information regarding the supply of commercial accommodation and its take-up by these workers is also summarised.

The non-resident population of Gladstone region largely comprises workers engaged in the construction of major resource projects and associated infrastructure. Non-resident workers are not included in estimated resident population (ERP) data released annually by the Australian Bureau of Statistics (ABS). The full–time equivalent (FTE) population estimates presented in this report, which combine the resident and non-resident populations, provide a more complete indicator of total demand for certain services than either measure used alone.

Key findings

Key findings of this report include:

- Around 6,655 non–resident workers on–shift were counted in Gladstone (R) in June 2014, an estimated 1,770 persons (or 36%) more than in June 2013.
- Most non-resident workers in Gladstone (R) were engaged in the construction of three liquefied natural gas (LNG) processing plants, a coal export terminal and other associated infrastructure.
- Gladstone (R) is one of Queensland’s fastest growing LGAs. In the year to June 2014, resident population growth was estimated to be 1,890 persons (or 3%). In conjunction with growth in its non-resident population, the full–time equivalent population of Gladstone (R) increased by 3,655 persons (or 5%) over this period, reaching an estimated 72,500 persons by the end of June 2014.
- Six worker accommodation villages (WAVs), including three on Curtis Island, housed 96% of non–resident workers on–shift (or 6,400 persons) in Gladstone (R) in June 2014. A further 255 persons (or 4%) were counted in other forms of accommodation, including hotels/motels and caravan parks.
- The number of non-resident workers accommodated in Curtis Island WAVs reached 5,475 in June 2014, an increase of 2,300 persons from the preceding year.
- Total WAV bed capacity in Gladstone (R) fell slightly from 8,190 beds in June 2013 to 8,065 beds in June 2014, following closure of one temporary pipeline construction camp. Capacity is likely to decline further in 2014–15, as two WAVs included in the June 2014 data collection have subsequently closed.
- Increased use of WAV accommodation by non-resident workers in 2013–14 eased demand for other commercial accommodation. Around 39% of hotel/motel rooms in Gladstone (R) were vacant and available in June 2014, compared with 28% in June 2013 and just 12% in June 2012.
Gladstone region update, 2013–14

With a resident population estimated at 65,845 persons in June 2014, the LGA of Gladstone (R) includes Queensland’s largest multi-commodity port and is a major industrial hub. Gladstone (R) has close links with the resource sector, with around 5,200 full-time employees and contractors working in alumina refining, aluminium smelting, cement and chemicals production, rail transport and coal export operations in 2014 (QGSO, 2014). Approximately 85 million tonnes of cargo was exported through Gladstone’s Barney Point and RG Tanna Coal Terminals in 2012–13, with almost 90% comprising coal exports (QDTMR, 2014).

Since 2010, construction of new resource-related projects has further added to the workforce of Gladstone (R). These projects include three LNG processing plants on Curtis Island, coal seam gas (CSG) pipelines linking Curtis Island to the Surat Basin gas fields, a new coal export terminal (Wiggins Island Coal Export Terminal (WICET)), port dredging and construction of associated rail and power infrastructure. The construction workforces of these projects include substantial numbers of FIFO/DIDO workers, who boost the area’s population when on-shift.

During the year to June 2014 construction of the three LNG projects transitioned from civil works to structural and mechanical phases, requiring more workers with specialised skills. In August 2014 Bechtel announced that the combined construction workforces of the three LNG projects would peak at around 13,000 (Bechtel, 2014), up from numbers reported in mid-2013. At that time, an increase in workforce numbers was anticipated in line with an accelerated schedule and easing of skills shortages (Australian Mining, 2013).

- The Queensland Curtis LNG (QCLNG) project (Queensland Gas Company (BG Group)) is the most advanced of the three projects, with the first train entering the final construction and commissioning phase in early 2014. As construction of the second train also gets underway, first LNG from the project is expected by the end of 2014 (QGC, 2014). The main gas pipeline from the Surat Basin gas fields to Gladstone was completed and commissioned in early 2014 (GasFields Commission, 2014).
- Construction of the Gladstone LNG (GLNG) plant (Santos, Petronas, Total and Kogas) was more than 85% finalised and on track for first LNG in 2015 (GasFields Commission, 2014). Tunnelling under ‘The Narrows’ between Curtis Island and the mainland was completed in early 2014 (Thiess, 2014), marking the final stage of the 420km trunk pipeline from the Surat Basin. By mid-year, hydrostatic testing of the first LNG storage tank was finalised, and pre-commissioning of the plant underway (Santos, 2014).
- The Australia Pacific LNG (APLNG) project (Origin Energy, ConocoPhillips and Sinopac) was 76% complete by June 2014 (GasFields Commission, 2014). Hydrostatic testing of LNG storage tanks on Curtis Island was underway, while the gas transmission pipeline from the Surat Basin was completed and being progressively placed into service (Origin, 2014).

Construction of the WICET project continued in 2013–14. In April 2014, the project was 80% complete and was on track for first ship-loading of coal in November 2014. The terminal is expected to ramp up to full nameplate loading capacity of 27Mtpa within 12 months of mechanical completion (WICET, 2014).

As these major projects transition from the construction phase and become operational in 2014–15, the size of their non-resident workforces will diminish substantially. Compared with their construction workforces, the production workforces of the LNG plants and port projects will be relatively small, and are likely to be largely resident rather than FIFO/DIDO.

Non–resident workers on–shift

According to Queensland Government Statistician’s Office (QGSO) estimates, 6,655 non-resident workers were on-shift in Gladstone (R) in late June 2014 (Table 1). Most of these were counted on Curtis Island (5,475 persons or 82% of the total). The remaining non-resident population was located on the mainland, shared across Gladstone (R) balance (950 persons or 14%) and Gladstone city (230 persons or 3%).

Net growth in the number of non–resident workers on–shift in Gladstone (R) in the year to June 2014 was 1,770 persons (or 36%). While numbers on Curtis Island increased by 2,300 persons (or 72%) during the year, the non-resident populations of Gladstone city and Gladstone (R) balance each declined by 265 persons (~54% and ~22% respectively).

Growth in the non-resident population of Gladstone (R) in the year to June 2014 was higher than growth for the year to June 2013 (1,275 persons, or 35%). Annual growth in both of these periods was lower than for the year to June 2012 (2,410 persons, or 200%), when construction activity for major projects was ramping up.
Trend data show that the geographical distribution of non-resident workers in Gladstone (R) has changed considerably since 2011, with a reduction in the number of mainland-based workers and an increase in those staying on Curtis Island. Figure 2 shows that the number of non-resident workers on–shift on Curtis Island has increased each year since 2012, reaching 5,475 persons in June 2014. In contrast, numbers of non–resident workers on–shift in Gladstone city and Gladstone (R) balance peaked at 1,470 persons and 1,290 persons respectively in June 2012, and have since declined.

The growing concentration of non-resident workers on Curtis Island since 2012 largely reflects the growth of LNG construction workforces, and their transition from mainland accommodation into three large WAVs located on the island. At the same time, non-LNG projects utilising WAV and commercial accommodation to house non-resident workforces on the mainland had either reached or were nearing completion by June 2014.

### Table 1: Non–resident workers on–shift, Gladstone (R), June

<table>
<thead>
<tr>
<th>Location</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>Change, 2013 to 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>— number —</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>— % —</td>
</tr>
<tr>
<td>Gladstone city</td>
<td>930</td>
<td>1,470</td>
<td>495</td>
<td>230</td>
<td>-265</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-54</td>
</tr>
<tr>
<td>Curtis Island</td>
<td>0</td>
<td>855</td>
<td>3,175</td>
<td>5,475</td>
<td>2,300</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>72</td>
</tr>
<tr>
<td>Gladstone (R) balance</td>
<td>275</td>
<td>1,290</td>
<td>1,215</td>
<td>950</td>
<td>-265</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-22</td>
</tr>
<tr>
<td>GLADSTONE (R) TOTAL</td>
<td>1,205</td>
<td>3,615</td>
<td>4,890</td>
<td>6,655</td>
<td>1,770</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>36</td>
</tr>
</tbody>
</table>

Figures in tables have been rounded to the nearest five; see notes for details.

Source: QGSO estimates

Full–time equivalent population estimates

Gladstone (R) is among the fastest growing LGAs in Queensland, with strong resident population growth in addition to notable non–resident population increases in recent years. In June 2014, Gladstone (R) had an estimated FTE population of 72,500 persons, comprising 65,845 residents and 6,655 non–resident workers on–shift (Table 2).

The resident population of Gladstone (R) is estimated to have grown by 1,890 persons or 3% in the year to June 2014, while the number of non–resident workers on–shift increased by 1,770 persons or 36%. In total, the region’s estimated FTE population grew by 3,655 or 5% over this period.

Non–resident workers on–shift represent an increasing proportion of the FTE population of Gladstone (R), growing from 2% of the total in June 2011 to 9% of the total in June 2014.

The growing concentration of non-resident workers on Curtis Island since 2012 largely reflects the growth of LNG construction workforces, and their transition from mainland accommodation into three large WAVs located on the island. At the same time, non-LNG projects utilising WAV and commercial accommodation to house non-resident workforces on the mainland had either reached or were nearing completion by June 2014.

Figure 2: Non–resident workers on–shift by location, Gladstone (R), June

![Graph showing non-resident workers on–shift by location, Gladstone (R), June](source: QGSO estimates)

Full–time equivalent (FTE) population

The FTE population measure is the sum of the resident population estimate (people who live in the area permanently) and the number of non–resident workers on–shift.

The FTE population provides a better measure of total demand for certain services and infrastructure in regions with a high incidence of FIFO/DIDO workers.
Table 2: FTE population estimates, Gladstone (R), June

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated resident population</td>
<td>59,460</td>
<td>61,465</td>
<td>63,955</td>
<td>65,845</td>
<td>1,890 3%</td>
</tr>
<tr>
<td>Non–resident workers on–shift</td>
<td>1,205</td>
<td>3,615</td>
<td>4,890</td>
<td>6,655</td>
<td>1,770 36%</td>
</tr>
<tr>
<td>FTE population estimate</td>
<td>60,665</td>
<td>65,080</td>
<td>70,845</td>
<td>72,500</td>
<td>3,655 5%</td>
</tr>
</tbody>
</table>

(a) ABS estimates, 2011 to 2013; QGSO estimate, 2014

Source: ABS 3218.0, Regional Population Growth, Australia, 2012–13; QGSO estimates

Non–resident worker accommodation

Most non–resident workers on–shift in Gladstone (R) in June 2014 were housed in temporary WAVs located close to projects under construction. Other types of accommodation used to house non-resident workers included hotels/motels and caravan parks located in Gladstone city and Gladstone (R) balance. At the end of June 2014 there were six WAVs operating in Gladstone (R). Three of these were situated on Curtis Island, while the remaining three were on the mainland in Gladstone (R) balance (Figure 3).

Figure 3: WAVs, existing operations and projects under construction, Gladstone (R), June 2014

Legend:
- Existing operation
- Project under construction
- Worker accommodation village
- CSG pipeline
- Railway

Gladstone city

Urban centre / locality

Coal terminal

0 5 10 Kilometres

WAV locations and projects under construction are current as at June 2014. Pipeline routes and operation, project and WAV locations are indicative only. Source: QGSO, 2014
The total bed capacity of the six WAVs servicing Gladstone (R) in June 2014 was 8,065 beds (Table 3). Around three-quarters of this capacity (6,125 beds, or 76% of the total) was in the three large centres built on Curtis Island exclusively for accommodating LNG project construction workforces. The remaining WAV bed capacity (1,940 beds, or 24% of the total) was provided by three mainland facilities located in Gladstone (R) balance.

Total WAV bed capacity in Gladstone (R) grew from 80 beds in June 2011 to 8,190 beds in June 2013, before falling to 8,065 beds in 2014 following the closure of one temporary pipeline construction camp. Capacity of mainland WAVs is likely to fall further in 2014–15, as two of the three facilities surveyed in June 2014 have subsequently closed.

### Table 3: Number of WAVs and WAV bed capacity, Gladstone (R), June

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of WAVs</th>
<th>WAV bed capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
<td>2012</td>
</tr>
<tr>
<td>Curtis Island</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>1,255</td>
</tr>
<tr>
<td>Gladstone (R) balance</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>80</td>
<td>1,300</td>
</tr>
<tr>
<td><strong>GLADSTONE (R) TOTAL</strong></td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>80</td>
<td>2,555</td>
</tr>
</tbody>
</table>

(a) There were no WAVs located in Gladstone city over this period.
Number of WAVs is unrounded. WAV bed capacity is rounded to the nearest five.
Source: QGSO estimates

Around 96% of all non–resident workers on–shift in Gladstone (R) in June 2014 were housed in WAVs (6,400 persons), with the remainder (255 persons, or 4%) occupying other forms of accommodation, including hotels/motels and caravan parks (Table 4). All 5,475 non–resident workers counted on Curtis Island in June 2014 were staying in WAVs, as this was the only type of worker accommodation available on the island. WAVs also accounted for the majority of non–resident workers on–shift in Gladstone (R) balance (925 persons or 97%). In contrast, all of the 230 non–resident workers on–shift in Gladstone city were housed in other accommodation, as no WAVs were located in this area.

### Table 4: Non–resident workers on–shift by accommodation type, Gladstone (R), June 2014

<table>
<thead>
<tr>
<th>Location</th>
<th>WAVs</th>
<th>Hotels/ motels</th>
<th>Caravan parks</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Gladstone city</td>
<td>0</td>
<td>200</td>
<td>30</td>
<td>230</td>
</tr>
<tr>
<td>Curtis Island</td>
<td>5,475</td>
<td>0</td>
<td>0</td>
<td>5,475</td>
</tr>
<tr>
<td>Gladstone (R) balance</td>
<td>925</td>
<td>20</td>
<td>5</td>
<td>950</td>
</tr>
<tr>
<td><strong>GLADSTONE (R) TOTAL</strong></td>
<td>6,400</td>
<td>220</td>
<td>35</td>
<td>6,655</td>
</tr>
</tbody>
</table>

(a) Refer to notes for additional information on hotels/motels.
Source: QGSO estimates

Since 2013, the increased uptake of WAV accommodation in Gladstone (R) has reduced demand for other forms of accommodation, including hotels/motels and caravan parks, to house non-resident workers. In June 2014, 39% of hotel/motel rooms in Gladstone (R) were vacant and available, compared with 28% in June 2013 and 12% in June 2012 (Table 5).

### Table 5: Vacant and available hotel/motel rooms, Gladstone (R), June

<table>
<thead>
<tr>
<th>Location</th>
<th>Occupied by non–resident workers</th>
<th>Vacant and available</th>
<th>Balance</th>
<th>Total hotel/motel rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
<td>number</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Gladstone city</td>
<td>200</td>
<td>330</td>
<td>325</td>
<td>855</td>
</tr>
<tr>
<td>Gladstone (R) balance</td>
<td>20</td>
<td>25</td>
<td>20</td>
<td>70</td>
</tr>
<tr>
<td><strong>GLADSTONE (R) TOTAL</strong></td>
<td>220</td>
<td>360</td>
<td>345</td>
<td>925</td>
</tr>
</tbody>
</table>

(a) There are no hotels/motels located on Curtis Island.
(b) Refer to notes for additional information on hotels/motels and explanation of ‘vacant and available’ and ‘balance’.
Source: QGSO estimates
Notes

(R) – Regional Council

Data in this report are derived from surveys conducted by QGSO in 2014 and other sources. The Survey of Accommodation Providers counted non-resident workers staying in worker accommodation villages (WAVs), hotels, motels, caravan parks and other commercial accommodation on a medium to long-term basis during the last week of June 2014. Short-term and overnight visitors are not regarded as non-resident workers. The Resource Operations Employment Survey collected workforce information from all resource companies with existing operations in the Gladstone region as at June 2014.

Non-resident workers are people who fly-in/fly-out or drive-in/drive-out (FIFO/DIDO) to work and live in the area temporarily while rostered on, and who have their usual place of residence elsewhere. Non-resident workers include FIFO/DIDO mining and gas industry employees and contractors, construction workers and associated sub-contractors. Figures in this report refer to the number of non-resident workers on-shift, or present in the area at a given point in time, and should not be confused with total non-resident workforce numbers.

Data for non-resident workers on-shift presented in this report are a point in time measure, based on best information available at the time of survey. Non-resident worker numbers may vary in response to changing production demands, prevailing weather and industrial disputes. At the time of the 2014 survey, the number of non-resident workers on-shift in the Gladstone region was unaffected by adverse weather events or industrial actions.

Resident population estimates for 2014 are QGSO estimates.

‘Gladstone city’ comprises the statistical areas level 2 (SA2s) of Callemondah, Gladstone, Clinton–New Auckland, Kin Kora–Sun Valley, South Trees, Telina–Toolooa, and West Gladstone. ‘Gladstone (R) balance’ comprises the SA2s of Agnes Water–Miriam Vale, Boyne Island–Tannum Sands, and Gladstone Hinterland (excluding Curtis Island).

Hotels/motels include serviced apartments and other rental accommodation occupied by non-resident workers.

‘Vacant and available’ refers to hotel/motel rooms that were not occupied by non-resident workers on-shift or other guests, and were vacant and available on the night of the survey. ‘Balance’ includes hotel/motel rooms occupied by short-term visitors, held for non-resident workers under permanent booking arrangements but not actually occupied on the night of the survey, or otherwise unavailable to prospective guests.

Figures in tables have been rounded to the nearest five. As a result of rounding, discrepancies may occur between sums of the component items and totals. Percentages and other calculations are made prior to rounding of figures and discrepancies might therefore exist between these calculations and those that could be derived from the rounded figures.

References


