



TWEED HEADS LOCAL OPPORTUNITIES AND IMPACTS REVIEW



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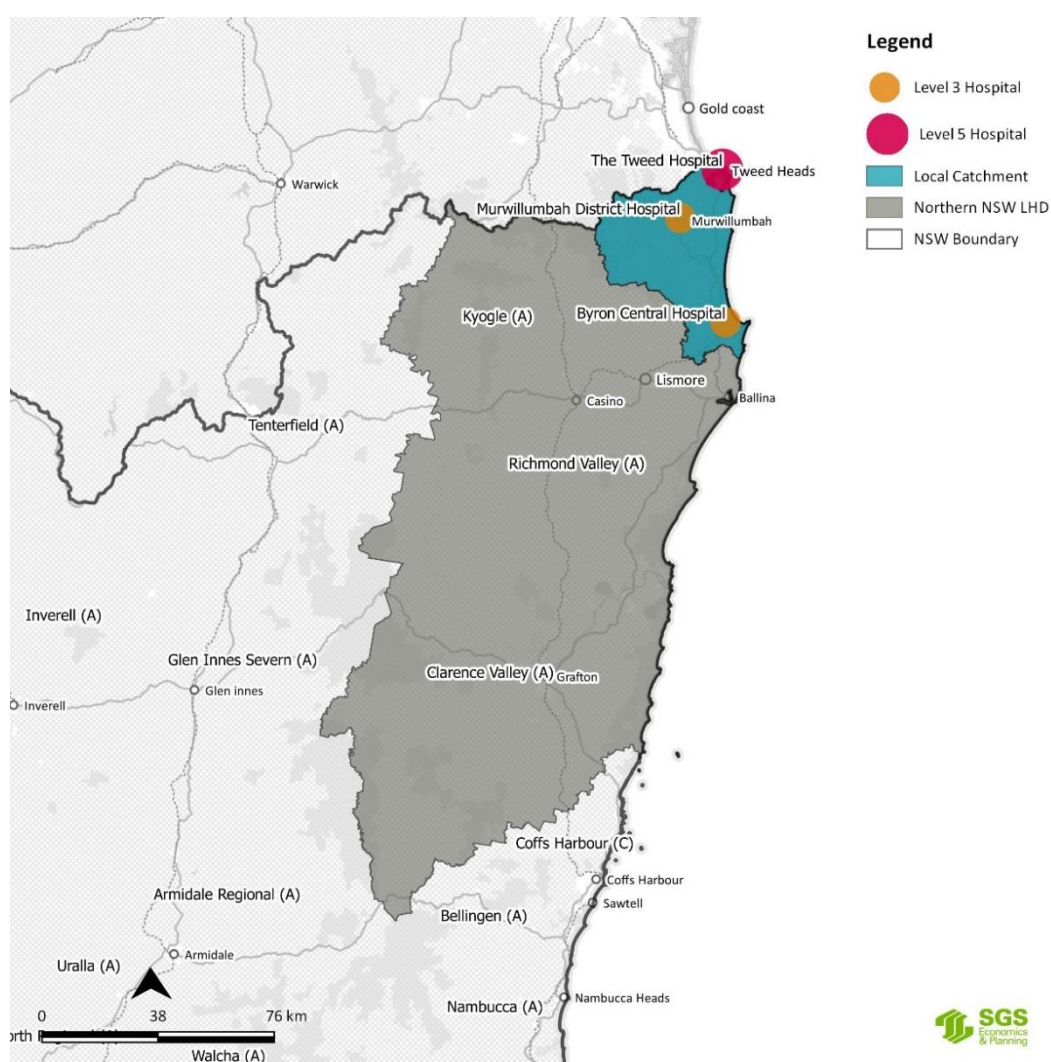
1. REPORT PURPOSE

1.1 Introduction

SGS Economics and Planning (SGS) have been commissioned to undertake a Socio-economic Impact Assessment (SEIA) as part of the Stage 1 planning proposal for the new Tweed Valley Hospital. This report is intended to be read in conjunction with the Stage 1 SEIA.

The SEIA assesses the relative social and economic impacts at a ‘Local Catchment’ level within the Northern NSW Local Health District. This is to appropriately consider the range of impacts felt across the whole of the current and proposed hospital’s catchment (Figure 1).

FIGURE 1: TWEED HOSPITAL CATCHMENTS



Source: SGS Economics and Planning

As part of the engagement and consultation process, it was evident that the local community was interested in a stronger focus on the localised impacts that the hospital relocation would have to the Tweed Heads community and local economy. The SEIA assessed these at a whole of catchment level as a transfer, given that the hospital is remaining in the local health district and relocating approximately 15 minutes (14 kilometres) away at Kingscliff.

This supplementary report acknowledges that in the short term, following the transfer of the hospital, the current site overlooking the Tweed River will become vacant. However,

1. there will continue to be health services provided in the Tweed Heads Town Centre through a HealthOne facility, with potential for this to be located on part of The Tweed Hospital (TTH) site.
2. with the vacated site, there is a great opportunity for new economic and social infrastructure.

1.2 Key issues raised

Community and agency consultation has identified several recurrent issues related to the hospital's relocation with regards to its impact on Tweed Heads.

1. Impact on local residents who require hospital-related services
2. Impact on local businesses from reduction in people working in Tweed Heads
3. That the hospital was an economic anchor to build economic development strategies around.

1.3 Purpose of this report

With the vacated TTH site there is opportunity for regeneration of the Tweed Heads Town Centre and as of yet, no preferred future use for the site has been identified. This report provides some context to this discussion, by examining the appropriateness of potential future uses for the current hospital site. In doing so, it identifies ways to mitigate a number of long-term social or economic impacts associated with the hospital's relocation.

It does this in several ways:

Examines employment, industry and demographic trends

A comprehensive analysis of industry trends in and around Tweed Heads has been undertaken using 2016 ABS Census data to understand the profile of businesses and the skills of those living in the area. This is aimed at better understanding any relative strengths that Tweed Heads could capitalise on from a predominantly commercial perspective.

This analysis also reviews demographic trends to understand what services may be appropriately located on the current hospital site to meet the needs of the current and future populations of the region.

Reviews strategic policy initiatives relevant to Tweed Heads

A review of relevant local policies that focus on Tweed Heads has been undertaken. This has been done to understand any strategic directions or competitive advantages that Tweed Heads may be able to build on from prior council or regional-scale strategies.

Examines the economic engagement of current hospital staff

A sample survey of hospital staff was undertaken by NSW Health Infrastructure to better understand the local expenditure profile of staff at the hospital so that the impact of the hospital's relocation on the local economy could be better understood. This survey is included in Appendix 1 of this report.

Compares potential alternative site uses

A distillation of the findings from the various pieces of analysis has been undertaken to identify potential future uses for the current hospital site. It is intended that these could support Council's own studies and help reduce the time that the site is vacant.

Each of the identified uses is assessed for its opportunities and constraints and a qualitative 'likelihood of success' rating provided.

Examines further the wider economic impacts of the hospital relocation.

Building on the analysis undertaken in the Stage 1 SEIA, a more detailed Economic impact assessment for the whole of the catchment area economy has been undertaken using a CGE model.

Meanwhile, Northern NSW Local Health District (NNSWLHD) is planning the establishment of the HealthOne facility in the Tweed Heads Central Business District, with services that will complement those at TTH. The scope and scale of the HealthOne facility will be further developed in coming months, but the HealthOne will provide Community and Allied Health services to the population of Tweed Heads, Tweed Heads South, Tweed Heads West, Terranora and Cobaki.

The following services are being considered for inclusion in the HealthOne:

- Aboriginal Health and Integrated Aboriginal Chronic Care (IACC).
- BreastScreen
- Child and Family Health services;
- Chronic Disease Management
- Community Nursing & Breast Care;
- Day Therapy;
- Hospital in the Home;
- Harm Reduction, Needle and Syringe Program and HARP Health Promotion;
- Older Person services;
- Oral Health
- Podiatry;
- Women's Clinic; and
- Clinics for Midwifery Group Practice

Note that this list is currently in draft form pending further consultation.

The analysis in this report should therefore be seen as an assessment of options for potential future uses in this location which would be *in addition* to that HealthOne facility, as opposed to an alternative use.

This report also covers the impacts of the construction phase of the project. This can be found in Section 5's economic modelling of Wider Economic Impacts.

Finally, it should be noted that this report should be read in conjunction with the SGS SEIA report, and the SGS RtS letter. Indeed, this report is complementary to those submissions and provides detail of further work that has been undertaken since original submission to inform a couple of specific issues that are generally beyond the scope of a standard SEIA.

2. SPATIAL AND POLICY CONTEXT

This section provides contextual information for the assessment of potential land uses. This is the same information and set of assumptions upon which the SEIA analysis is based on.

2.1 Spatial context

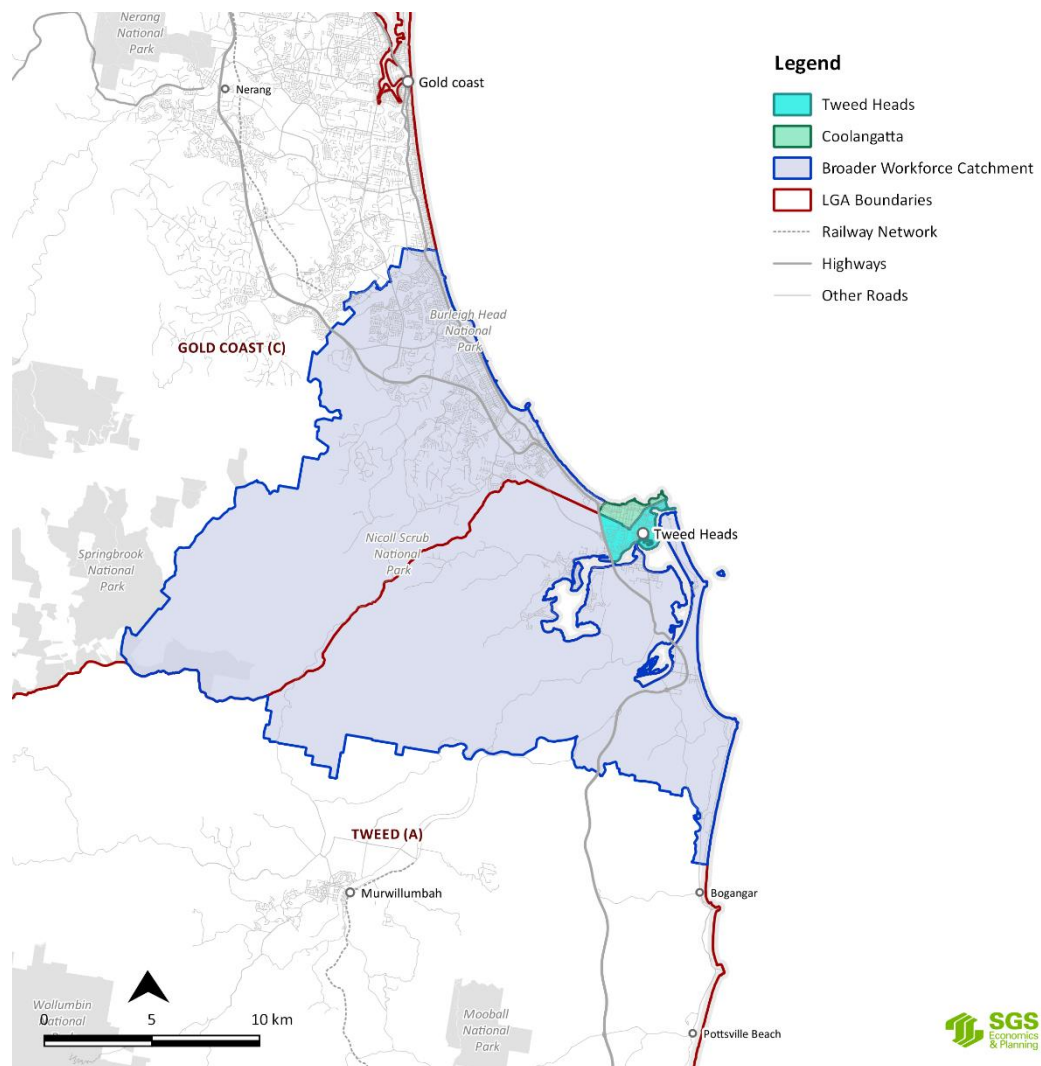
Tweed Heads is located on the border of NSW and Queensland. The site of the current hospital is shown below in Figure 2, along with its local context. Tweed Heads and Coolangatta, just over the Queensland border, constitute one functional urban centre, and the broader area has a predominantly residential character. The town centre in Tweed Heads – Coolangatta, located to the north of the map shown below, functions largely as a tourist, retail and food destination. The current hospital site is located adjacent to the Tweed River, approximately 1km from the town centre area in the north of Tweed Heads – Coolangatta. It is located adjacent to a number of residential and aged care uses, along with several local government institutions, such as the Tweed Shire Council offices, Tweed Heads Library, and the Tweed Heads Civic and Cultural Centre. The Tweed Heads Bowls Club is also adjacent to the site.

FIGURE 2: LOCAL CONTEXT OF THE HOSPITAL SITE



This wider analysis has conducted using the geographic areas shown in Figure 3 below. In order to profile the area immediately surrounding the hospital site, data has been obtained for Tweed Heads and Coolangatta. As the labour market catchment for this area extends beyond the Tweed Heads-Coolangatta urban area, a broader catchment has been used to identify characteristics of the surrounding population and resident workforce. This catchment has been comprised of SA2-level geographies produced by the Australian Bureau of Statistics (ABS) which fall within an approximate 20-minute drive of the hospital site, with these areas being selected based on a high-level examination of travel to work at the time of the 2016 Census.

FIGURE 3: GEOGRAPHIC AREAS USED IN THE ANALYSIS



SGS Economics and Planning 2018

2.2 Policy context

Tweed Shire Regional Economic Development Strategy (2018)

The Tweed Shire Regional Economic Development Strategy (REDS) has been developed by Tweed Shire Council in conjunction with the NSW Government. The following key points are made with regard to the current project:

- The LGA is has seen significant population growth in recent years.

- The shire has a large proportion of dependent residents, either those over the age of 65 or under the age of 15, and this number is increasing as a result of a higher proportion of older residents moving to the LGA. The REDS presents the following table outlining these statistics.

TABLE 1: AGE AND YOUTH DEPENDENCE IN THE TWEED SHIRE

	Tweed Shire	NSW	Regional NSW
Age Dependency Ratio (>65 / 15-64)	43.7%	25%	34.8%
Youth Dependency Ratio (<15 / 15-64)	29%	28.4%	28.4%
Dependency Ratio (Sum of the two)	72.7%	53.4%	63.2%
Proportion of Young Persons (<15/all)	16.8%	18.5%	18.5%
Proportion of Old Persons (>65/all)	25.3%	16.3%	21.1%
Median Age 2016	47	38	42.5

Tweed Shire Council 2018, p6

- The REDS identifies that the area's endowments should be leveraged to attract greater tourism activity, however the key focus within these recommendations is on driving nature-based tourism, and does not provide any actions or items where direct relevance to the current hospital site are identified.
- The document also suggests that it would be appropriate to revisit the Tweed Heads CBD masterplan, and broaden it to a whole of region focus. This section notes as an initial opportunity "options for repurposing the existing Tweed Hospital site", but does not provide further specific direction other than to advocate for a broader Precincts Study for Tweed Heads and Kingscliff.
- The strategy acknowledges the key role played by population serving industries within the region in driving economic growth.

North Coast Regional Plan 2036 (2017)

The North Coast Regional Plan has been developed by the NSW Department of Planning and Environment to guide planning strategy within the region. It notes the need to diversify economic offering within the area, and suggests leveraging Coolangatta Airport, the Southern Cross University and Tweed Hospital Precincts to achieve this – however this document was prepared without reference to the relocation of the hospital from its current site. It is notable that the Southern Cross University's existing campus is located adjacent to Coolangatta Airport, however this is some distance from the site of the current hospital. The delivery of greater housing diversity through delivering additional homes within Tweed Heads (with the implication of this being in infill development) is also noted.

Tweed Heads Masterplan (2011)

The Tweed Heads Masterplan was developed by Tweed Shire Council in 2011 and identifies a number of character areas throughout the centre. Given that it was developed well in advance of the decision to move the hospital, it plans to maintain the character of the surrounding area as a 'civic/campus precinct'. It notes that the precinct could benefit from some tourist uses to cater for the Bowling Club and the Hospital, and that the expansion of university functions into this precinct would be desirable.

3. TRENDS AND ANALYSIS

3.1 Employment in Tweed Heads – Coolangatta

Employment by industry

The 2016 Census recorded just shy of 9,390 jobs in Tweed Heads and Coolangatta. Employment within the centre has grown at 4% per year on average between the 2011 and 2016 Censuses. A breakdown by industry is shown below in Table 2, containing the total number of jobs recorded at the time of the 2016 Census, and the annual average growth rate (AAGR) between 2011 and 2016. Individual responses for which the industry was inadequately described or not stated have been proportionally allocated to the 1-digit industries. The AAGR has been calculated using only those individuals who did not have their place of work imputed by the ABS to account for changes made in the 2016 Census.

TABLE 2: TWEED HEADS - COOLANGATTA: JOBS BY INDUSTRY (2016; ANNUAL GROWTH 2011-16)

Industry (1 Digit)	Jobs	%	AAGR ('11-'16)
Agriculture, Forestry and Fishing	24	0%	11%
Mining	4	0%	20%
Manufacturing	161	2%	-5%
Electricity, Gas, Water and Waste Services	16	0%	41%
Construction	402	4%	20%
Wholesale Trade	102	1%	-2%
Retail Trade	1,067	11%	1%
Accommodation and Food Services	1,815	19%	2%
Transport, Postal and Warehousing	406	4%	1%
Information Media and Telecommunications	80	1%	27%
Financial and Insurance Services	172	2%	-5%
Rental, Hiring and Real Estate Services	344	4%	1%
Professional, Scientific and Technical Services	374	4%	2%
Administrative and Support Services	270	3%	4%
Public Administration and Safety	444	5%	3%
Education and Training	270	3%	-3%
Healthcare and Social Assistance	2,871	31%	8%
Arts and Recreation Services	183	2%	14%
Other Services	386	4%	8%
Total	9,390		4%

SGS Economics and Planning 2018; data from the 2016 and 2011 Census via ABS TableBuilder

The Healthcare and Social Assistance industry constitutes 31% of all jobs within the area and has made a strong contribution to employment growth over the intercensal period. A finer grain examination of employment in this industry is shown below in Table 3. Employment at the hospital constitutes 13% of the jobs within Tweed Heads – Coolangatta, making it the

largest single employer within the centre. One consideration of note is that the employment within this industry is broader than the employment directly associated with the hospital. Whilst it may be partially explained by colocation with the hospital, employment within the myriad of other medical and allied health industry classifications is also indicative of the role of Tweed Heads – Coolangatta as a population serving centre. At 7% of the total, employment in Residential Care Services (which predominantly covers aged care services) also represents a sizable proportion of employment.

TABLE 3: TWEED HEADS - COOLANGATTA: HEALTHCARE AND SOCIAL ASSISTANCE JOBS (2016)

Healthcare & Social Assistance (3 Digit)	Jobs	%
Hospitals	1,236	13%
Residential Care Services	616	7%
Allied Health Services	275	3%
Other Social Assistance Services	264	3%
Medical Services	215	2%
Pathology and Diagnostic Imaging Services	90	1%
Healthcare and Social Assistance, nfd	52	0.6%
Social Assistance Services, nfd	37	0.4%
Other Healthcare Services	30	0.3%
Child Care Services	29	0.3%
Medical and Other Healthcare Services, nfd	27	0.3%
Total	2,871	31%

SGS Economics and Planning 2018; data from the 2016 Census via ABS TableBuilder

Nfd = no further details (unable to be classified at a finer grain level)

The Retail Trade and Accommodation and Food Services industries also represent 31% of employment within Tweed Heads – Coolangatta. The substantial amount of employment in these industries highlights the significance of tourism within the area's economy and the population-serving role of Tweed Heads in the broader Tweed region.

TABLE 4: TWEED HEADS - COOLANGATTA: RETAIL AND ACCOMMODATION & FOOD SERVICES JOBS (2016)

Retail Trade (2 Digit) and Accommodation and Food Services (2 Digit)	Jobs	%
Food and Beverage Services	1,376	15%
Accommodation	433	5%
Accommodation and Food Services, nfd	5	0.06%
Total Accommodation & Food Services	1,815	19%
Other Store-Based Retailing	535	6%
Food Retailing	365	4%
Motor Vehicle and Motor Vehicle Parts Retailing	106	1.1%
Retail Trade, nfd	46	0.5%
Fuel Retailing	11	0.1%
Non-Store Retailing/Commission-Based Retail	4	0.04%
Total Retail Trade	1,067	11%
Total Retail and Accommodation & Food Serv.	2,882	31%

SGS Economics and Planning 2018; data from the 2016 Census via ABS TableBuilder

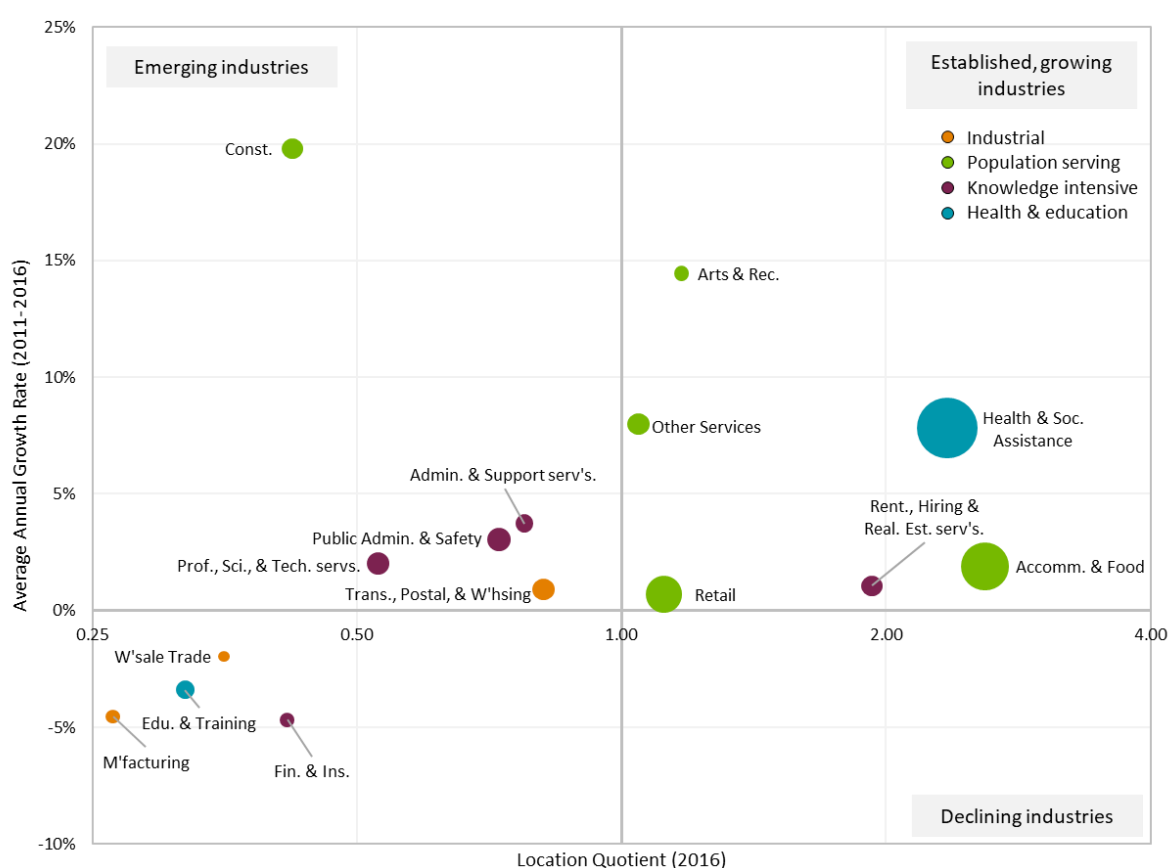
Nfd = no further details (unable to be classified at a finer grain level)

Local specialisations

Tweed Heads – Coolangatta specialises in population serving and tourism-oriented industries such as Accommodation and Food Services and Retail Trade, along with Healthcare and Social Assistance. Its industry specialisations are measured by location quotients, which reflect the proportion of employment an industry takes up in one area compared to another. If the location quotient for an industry is greater than one, Tweed Heads - Coolangatta has a specialisation in that industry compared to the benchmark region (the rest of Queensland and NSW). Likewise, if the location quotient is less than one, the study area is relatively unspecialised in that industry. The larger the LQ, the more significant the specialisation.

Figure 4 displays this in a graph, showing the specialisation of the area's industries relative to the rest of NSW and Queensland, as well as annualised growth rate and proportional size (reflected in the size of each circle). Industries have been categorised into four broad groups: industrial jobs, population serving jobs, knowledge intensive and professional services, and health and education.

FIGURE 4: TWEED HEADS - COOLANGATTA: LOCATION QUOTIENT (2016, BENCHMARKED AGAINST NSW & QLD)



SGS Economics and Planning 2018; data from the 2016 and 2011 Census via ABS TableBuilder

Some small outlying industries have been excluded from the graph to improve readability, specifically being: Agriculture Forestry and Fishing; Mining; Electricity, Gas Water and Waste Services; and Information Media and Telecommunications.

Industries sitting to the right of the y-axis have location quotients greater than one and are therefore industries in which Tweed Heads - Coolangatta specialises. The chart shows several industries have location quotients greater than one, and all of them have been growing in the past five years. The Accommodation and Food Services industry has the highest LQ, at over 2.5, and has shown an AAGR of around 2%. Whilst the Rental Hiring and Real Estate industry constitutes a modest amount of total employment in the centre (3.7%), it displays a high degree of specialisation (LQ of 1.9).

The industries which have seen a decline over the previous five years all have a low degree of specialisation ($LQ < 0.5$) and comprise a small proportion of employment within the area. In terms of broad industry groupings, Tweed Heads – Coolangatta has specialisations in population serving industries. Both the knowledge intensive and industrial industry groupings are unspecialised.

Health and Social Assistance is a clearly dominant industry, driven by both the hospital and the allied services in the wider catchment, as discussed above.

Local competitiveness

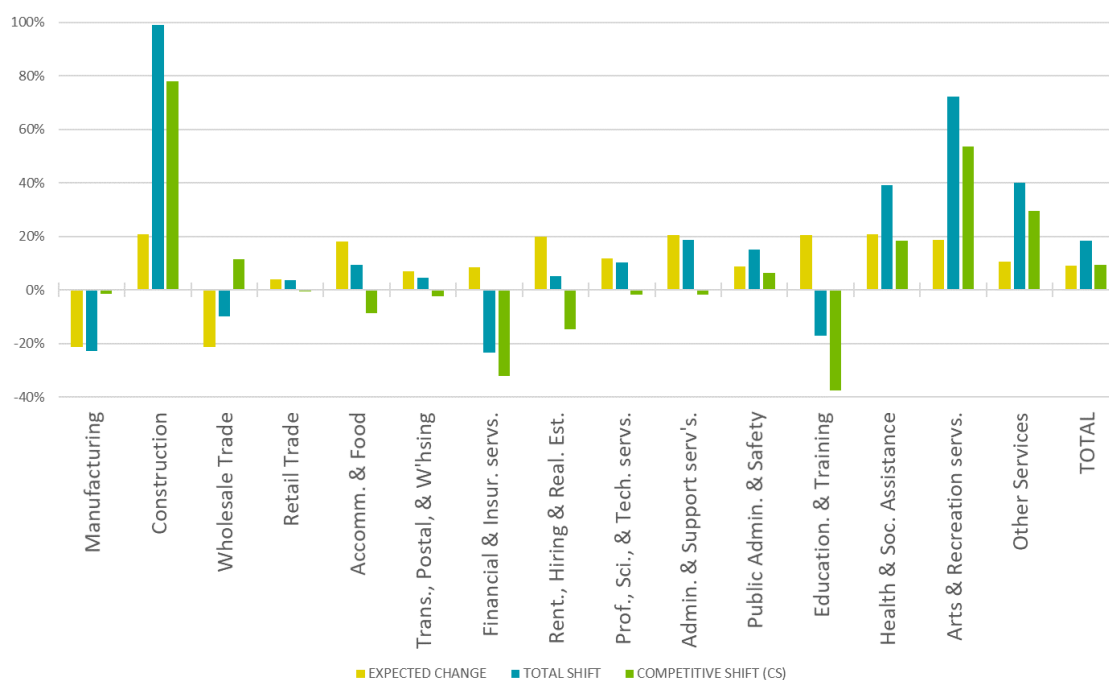
Shift-share analysis paints a picture of how well the region's current industries are performing by systematically examining the regional, local, and industrial components of employment change. It provides a dynamic account of total regional employment growth that is attributable to growth of the national economy, a mix of faster or slower than average growing industries, and the competitive nature of the local industries. This analysis identifies those industries that benefit from local competitive advantages and those that suffer from local growth impediments.

A shift-share analysis was conducted for Tweed Heads – Coolangatta against NSW and Queensland region to determine the extent to which job growth can be attributed to unique local factors and how much is due to regional trends (see Figure 5).

The shift-share analysis includes the following elements:

- Expected Change is the rate of growth of the industry at the region level. It is the change expected in both Tweed Heads – Coolangatta and across NSW and Queensland, all other things being equal. This is the change in a local industry that would be attributable to the growth or decline of the industry at the benchmark area level.
- Total Shift is the rate of growth of the industry within Tweed Heads – Coolangatta over the five years between the 2011 and 2016 Censuses.
- Regional Competitive Shift (CS) explains how much of the change in each industry is due to some unique competitive advantage that the study area possesses, because the growth cannot be explained by broader trends in that industry or the economy as whole. It is the total industry growth in Tweed Heads - Coolangatta minus the expected change in that industry given the benchmark (NSW and Queensland) rates.

FIGURE 5: TWEED HEADS - COOLANGATTA: SHIFT SHARE (2011-16, BENCHMARKED AGAINST NSW & QLD)



SGS Economics and Planning 2018; data from the 2016 and 2011 Census via ABS TableBuilder

Some small outlying industries have been excluded from the graph to improve readability, specifically being: Agriculture Forestry and Fishing; Mining; Electricity, Gas Water and Waste Services; and Information Media and Telecommunications.

When considering the area's key industries of specialisation, the shift share analysis indicates that Tweed Heads – Coolangatta has had a competitive advantage in both the Healthcare and Social Assistance and the Arts and Recreation Services industries. Two of other most specialised industries – Rental, Hiring & Real Estate Services and Accommodation & Food Services – have both been relatively uncompetitive, displaying lower growth than what was observed at a broader regional level. A significant increase in Construction employment was also observed, however this employment is frequently associated with specific projects under development rather than an established economic specialisation.

Implications

From the analysis of employment within Tweed Heads – Coolangatta, the following key points can be made:

- **Employment within the Healthcare and Social Assistance industry is broader than those jobs directly created by the hospital.** Whilst the hospital constitutes a substantial proportion of employment within the area (13%), employment in other parts of this industry represents a greater proportion of total jobs (18%), in particular aged care services (7%). This indicates that the role of Healthcare and Social Assistance jobs in Tweed Heads – Coolangatta is also owing to its role as a key centre for the population of the broader Tweed Valley region.
- **Tourism aligned industries are significant employers and/or specialisations within the area.** This includes Accommodation and Food Services and the Rental, Hiring and Real Estate industries. Each industry has a location quotient above one, indicating a specialisation. Whilst the accommodation and rental classifications have shown a decline in their competitive position (see Figure 5 above), they are still highly specialised and growing industries, with the proportion of jobs in these industries being roughly twice what it is in the benchmark area.

- **Population serving industries perform strongly in the area.** In addition to the more tourism-related industries noted above, the Retail Trade and Other Services industry classifications have grown in recent years and represent a specialisation of the area. This is likely reflective of the role of Tweed Heads – Coolangatta within the centre hierarchy of the broader Tweed Valley region and its role as a population-serving centre.
- **Knowledge intensive industries typically display lower proportions of total employment and growth.** The area underperforms in terms of professional, financial and administrative services, relative to the rest of NSW and QLD. The centre is relatively unspecialised in these industries, and despite their growth, all but Public Administration and Safety have seen a negative competitive shift in recent years. When coupled with their relatively small proportion of employment, this indicates that the area is not likely to be attractive to these types of industries. This is typical of a centre of this scale and particularly one close to a large centre such as the Gold Coast.

3.2 Resident workforce and demographics

Employment by industry

The broader catchment area (see Figure 3 above) had a resident workforce of just over 77,000 people at the time of the 2016 Census, with the number of employed residents growing 2% per year on average between the 2011 and 2016 Censuses. A breakdown of the employed residents by the 1-digit industry they work in is displayed below in Table 5, which also shows the total number, proportion and AAGR for each industry. The location quotient for each industry is also supplied, as benchmarked against the total employed residents of NSW and Queensland. Individual responses for which the industry was inadequately described or not stated have been proportionally allocated to the 1-digit industries.

TABLE 5: EMPLOYED RESIDENTS IN CATCHMENT BY INDUSTRY (2016 TOTAL AND LQ; ANNUAL GROWTH 2011-16)

Industry (1 Digit)	People	%	AAGR ('11-'16)	LQ
Agriculture, Forestry and Fishing	570	1%	9%	0.33
Mining	588	1%	5%	0.77
Manufacturing	3,477	5%	-4%	0.73
Electricity, Gas, Water and Waste Services	549	1%	-0.9%	0.72
Construction	9,650	13%	3%	1.43
Wholesale Trade	1,691	2%	-6%	0.68
Retail Trade	9,150	12%	0.1%	1.17
Accommodation and Food Services	7,953	10%	1%	1.40
Transport, Postal and Warehousing	2,822	4%	1%	0.74
Information Media and Telecommunications	1,138	1%	1%	0.65
Financial and Insurance Services	1,750	2%	0.3%	0.44
Rental, Hiring and Real Estate Services	2,119	3%	5%	1.49
Professional, Scientific and Technical Services	4,726	6%	3%	0.72
Administrative and Support Services	3,132	4%	3%	1.12
Public Administration and Safety	3,801	5%	2%	0.78
Education and Training	7,396	10%	5%	1.09
Healthcare and Social Assistance	11,499	15%	5%	1.14
Arts and Recreation Services	2,044	3%	4%	1.65
Other Services	2,999	4%	2%	1.01
Total	77,054		2%	

SGS Economics and Planning 2018; data from the 2016 and 2011 Census via ABS TableBuilder

Given its broader area, a more evenly distributed profile of industries is observed for the resident workforce when compared to the industries of jobs within Tweed Heads – Coolangatta itself. Key industries of employment are Healthcare and Social Assistance, Construction, Retail Trade, Accommodation and Food Services, Education and Training.

To examine the Healthcare and Social Assistance industry in greater detail, the number of residents employed in this industry have been displayed at a finer grain (3-digit) level below in Table 6. This is similar to the examination of the jobs within Tweed Heads – Coolangatta above in Table 3, in that employment within this industry classification is spread across range

of sub-classifications, with the second largest industry of employment being residential care services.

TABLE 6: RESIDENTS EMPLOYED IN THE HEALTHCARE AND SOCIAL ASSISTANCE INDUSTRY (2016; TOTAL, PROPORTION OF RESIDENT WORKFORCE AND LQ)

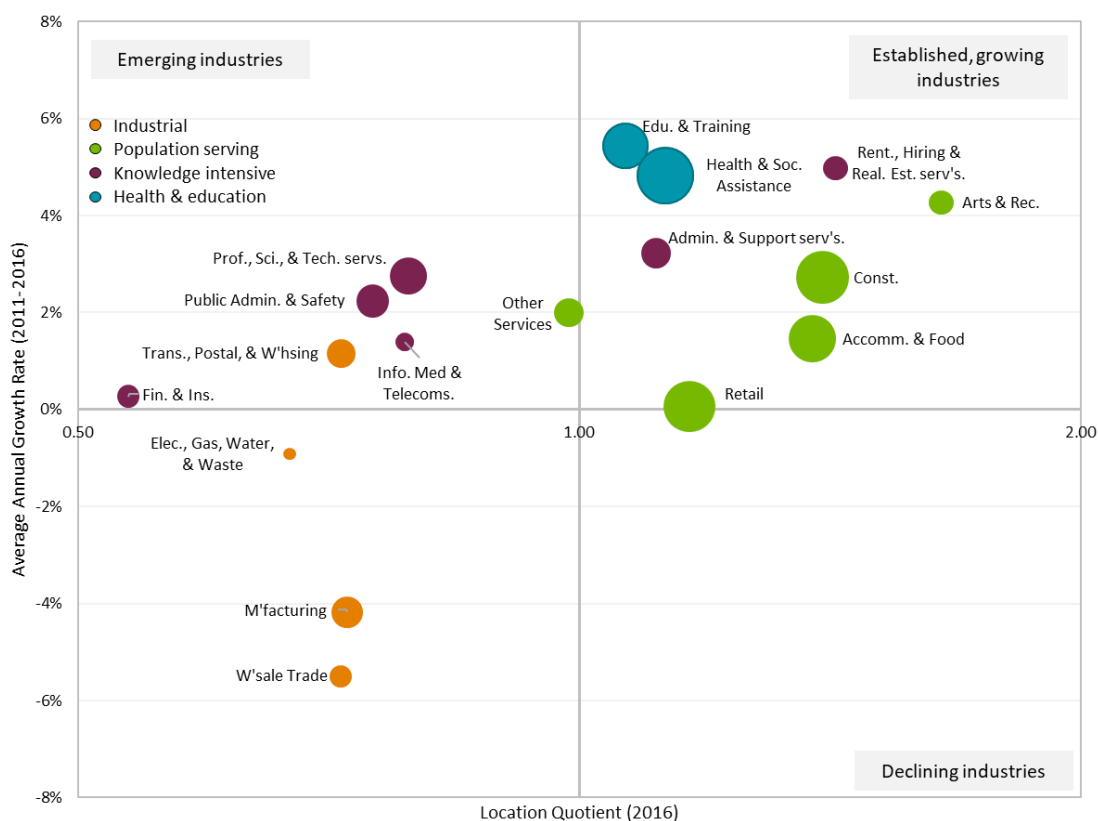
Healthcare & Social Assistance (3 Digit)	Jobs	%	LQ
Hospitals	3,600	5%	1.14
Residential Care Services	2,148	3%	1.26
Allied Health Services	1,581	2%	1.32
Medical Services	1,179	2%	1.12
Other Social Assistance Services	1,131	1%	0.92
Child Care Services	934	1%	0.98
Pathology and Diagnostic Imaging Services	289	0.4%	0.86
Other Health Care Services	205	0.3%	1.23
Health Care and Social Assistance, nfd	194	0.3%	1.15
Social Assistance Services, nfd	130	0.2%	0.87
Medical and Other Health Care Services, nfd	108	0.1%	1.05
Total	11,499	15%	1.14

SGS Economics and Planning 2018; data from the 2016 Census via ABS TableBuilder

Nfd = no further details (unable to be classified at a finer grain level)

The relative specialisation of these industries is shown below in Figure 6, using the same style of graph shown above in Figure 4.

FIGURE 6: BROADER WORKFORCE CATCHMENT: LOCATION QUOTIENT (2016, BENCHMARKED AGAINST NSW & QLD)



SGS Economics and Planning 2018; data from the 2016 and 2011 Census via ABS TableBuilder

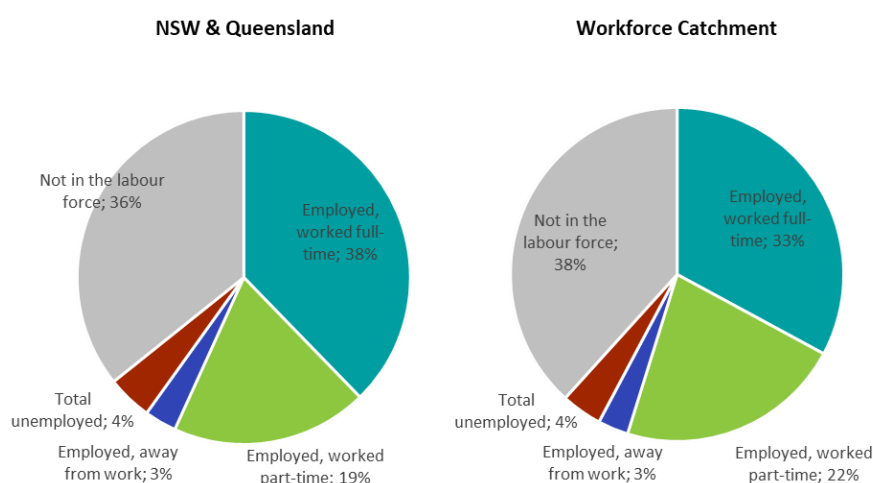
Some small outlying industries have been excluded from the graph to improve readability, specifically being: Agriculture Forestry and Fishing and Mining.

The industries in the top-right quadrant of the graph indicate those that the resident workforce possess as a specialisation relative the large comparator area, and which have been growing over time. Along with health and education, other population serving industries are heavily represented in this area. Most knowledge intensive industries and all of the industries classified as industrial are situated on the left-hand side of the graph, indicating that the workforce is relatively unspecialised in these areas.

Labour force status and workforce age profile

In addition to the 77,000 employed residents described above, the 2016 Census recorded over 5,250 unemployed people who were searching for either full-time or part-time work living in the catchment, along with 51,000 people who are not in the workforce. The labour force status of the catchment's residents over 15 years of age is displayed below in Figure 7, along with the results for NSW and Queensland as a comparison. The profile is largely in line with the observed split for NSW and Queensland, although slightly less people worked full-time (-%) and slightly more worked part-time (+3%) or were not in the labour force at all (+2%).

FIGURE 7: LABOUR FORCE STATUS - CATCHMENT AND REST OF NSW/QLD (2016; RESIDENTS AGED 15 YEARS AND OLDER)



SGS Economics and Planning 2018; data from the 2016 Census via ABS TableBuilder

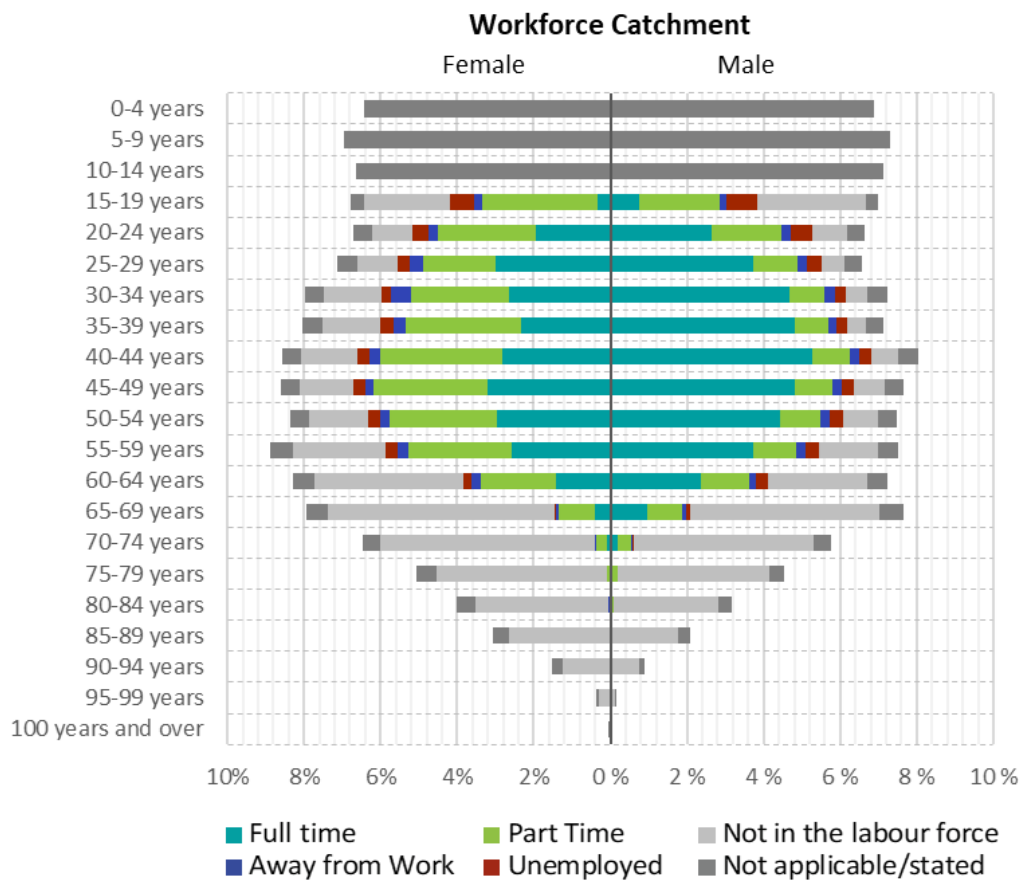
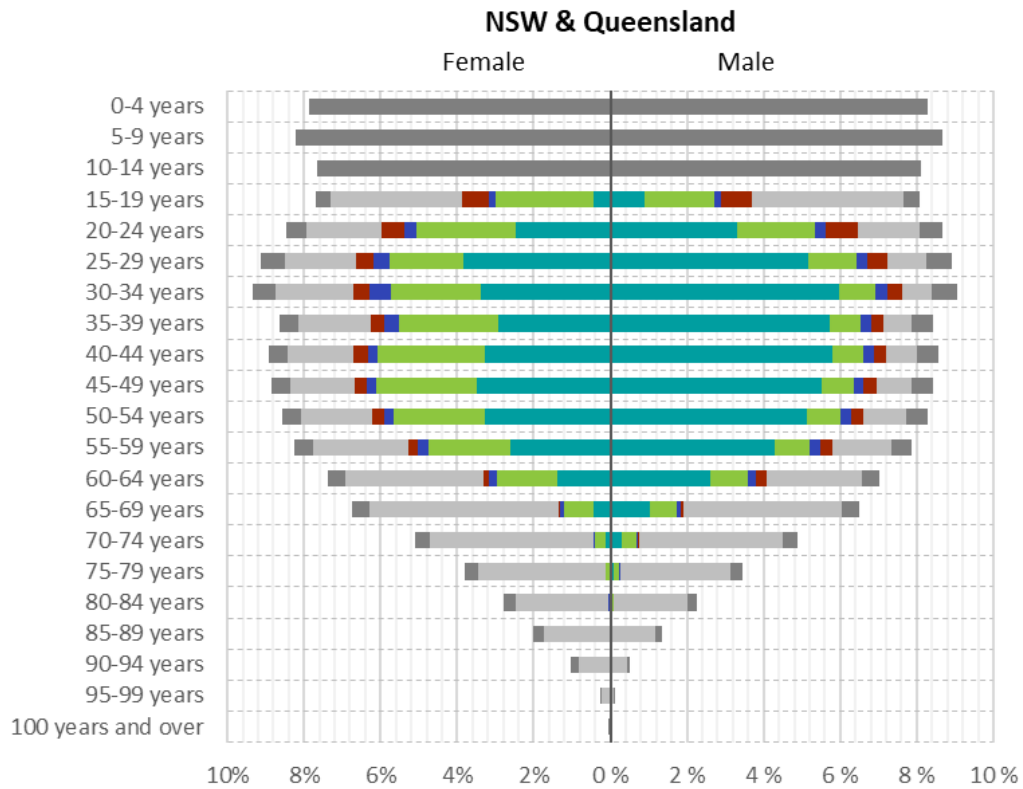
Whilst the proportional split between labour force status is broadly similar between the catchment and the rest of the two states it falls within, the age profile of the catchment is notably older. Table 7 below shows the resident population in the benchmark areas and catchment, split by broad age groups. Population pyramids for the catchment and benchmark area are displayed below in Figure 8. These show the resident population in five-year age groups, by their labour force status. They are shown for both the benchmark area (all of NSW and Queensland) and the broader workforce catchment.

TABLE 7: SUMMARY OF POPULATION AGE GROUPS

Age Group	NSW & Queensland		Workforce Catchment	
	Total	%	Total	%
0-14 years	2,269,987	19%	29,032	17%
15-64 years	7,842,088	65%	106,701	62%
65 years and over	1,898,488	16%	37,069	21%
Total	12,010,563		172,802	

SGS Economics and Planning 2018; data from the 2016 Census via ABS TableBuilder

FIGURE 8: POPULATION PYRAMID (AGE BY SEX BY LABOUR FORCE STATUS; 2016)



SGS Economics and Planning 2018; data from the 2016 Census via ABS TableBuilder

Both Table 7 and Figure 8 indicate that the catchment's resident population has a higher proportion of persons over 65 than the average in the rest of the states. Also of note is the proportion of residents within the catchment who are approaching retirement age, which indicates that the workforce participation rate within the catchment will continue to decline in the near future.

Implications

The analysis of the resident population within the broader workforce catchment of the site has identified the following key points. Regarding the industry of employment of its resident workforce (thereby providing an indication as to the skills and experience available in the area), it is noted that the results are similar to the analysis of jobs in Tweed Heads – Coolangatta contained above in section 3.1.

- The resident workforce has specialisations in population serving industries and health and education. The number of residents employed in these industries have typically displayed growth in recent years.
- Residents employed within the Healthcare and Social Assistance industry are employed across a range of subclassifications rather than being predominantly employed directly by hospitals.
- Residents employed in knowledge intensive and industrial jobs make up a smaller than average proportion of total employment than the average across NSW and Queensland. This indicates that the area would likely be less attractive to these industries that require access to knowledge sector focused labour markets given the smaller pool of potential workers to draw from.

In addition to this, an ageing population within the catchment was identified, with residents being notably older on average than throughout NSW and Queensland. In addition to the increased number of residents not in the labour force and/or over the age of 65, there is a higher proportion of residents within the catchment who are approaching retirement age.

Finally, it should be noted that at present, the main challenge to local industry participation in the Tweed Valley region is the amount of employment that the Gold Coast provides for Tweed-Byron residents. In 2014, according to the NSW Department of Employment, 22% (6,300) of employed people living in Tweed Region work in the Gold Coast.

Effectively, the Tweed-Byron Region is a net exporter of skilled workers to other regions. This means that other LGA's (incl. in QLD) are getting the benefit of the significant experience which lives in the Tweed-Byron region.

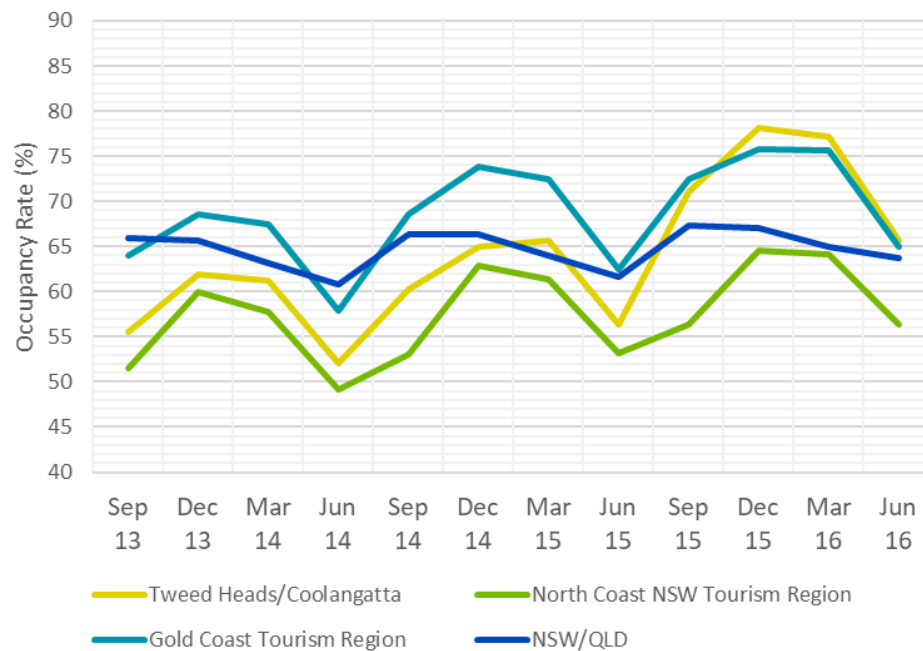
HI's vision for the Tweed Valley Hospital project is that it creates opportunities for local employment and local industries during the construction phase, as well as long term benefits to the Tweed-Byron region.

Further analysis has been undertaken assessing the industries of employment of residents in the region which indicates that 13% of those living around Tweed Heads-Coolangatta are employed in the Construction industry.

3.3 Tourism and accommodation

Given the importance of tourism within the local area, an examination of tourism statistics has been conducted. Figure 9 below shows the occupancy rate for tourist accommodation in Tweed Heads and Coolangatta compared to the NSW North Coast Tourism Region, the Gold Coast Tourism Region, and the whole of NSW and Queensland. In the three years to June 2016, Tweed Heads and Coolangatta showed moderate trend increases, to be relatively comparable to the Gold Coast and the average for the two states. This increase is indicative of moderate increase in demand for tourist accommodation in the area.

FIGURE 9: OCCUPANCY RATES IN TWEED HEADS – COOLANGATTA AND BENCHMARK REGIONS (2013-14 TO 2015-16)

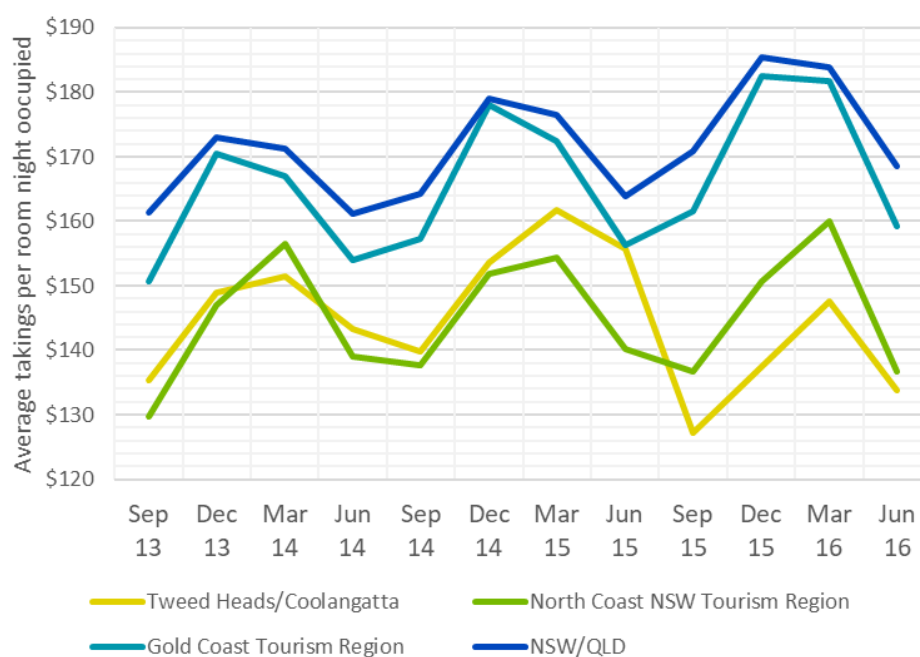


SGS Economics and Planning 2018; data from ABS Cat. No. 8635.0 (Tourist Accommodation, Australia)
Data releases from 2013-14, 2014-15, and 2015-16

Figure 10 below shows the average takings for each night that a room is occupied, which gives an indication of the relative amount charged for accommodation in each of the regions. Prices charged for accommodation can be reflective of tourist demand in an area, but they can also reflect the type and quality of accommodation provided in an area.

Based on this data, we can identify that the prices charged for accommodation in Tweed Heads – Coolangatta are typically lower than the Gold Coast and the remainder of NSW and Queensland, although they are broadly in line with the NSW North Coast. It is pertinent to remember that the NSW and Queensland data includes both Sydney and Brisbane, where the higher cost of accommodation will skew the average higher, and that the Gold Coast’s reputation as an international tourism destination will take account of the increase in costs in these areas. Given the alignment of Tweed Heads – Coolangatta with the NSW North Coast tourism region, this data implies that the area does not have the pull factors as a destination associated with the other two benchmark areas, but that is to be expected comparing regional tourism destinations with major cities.

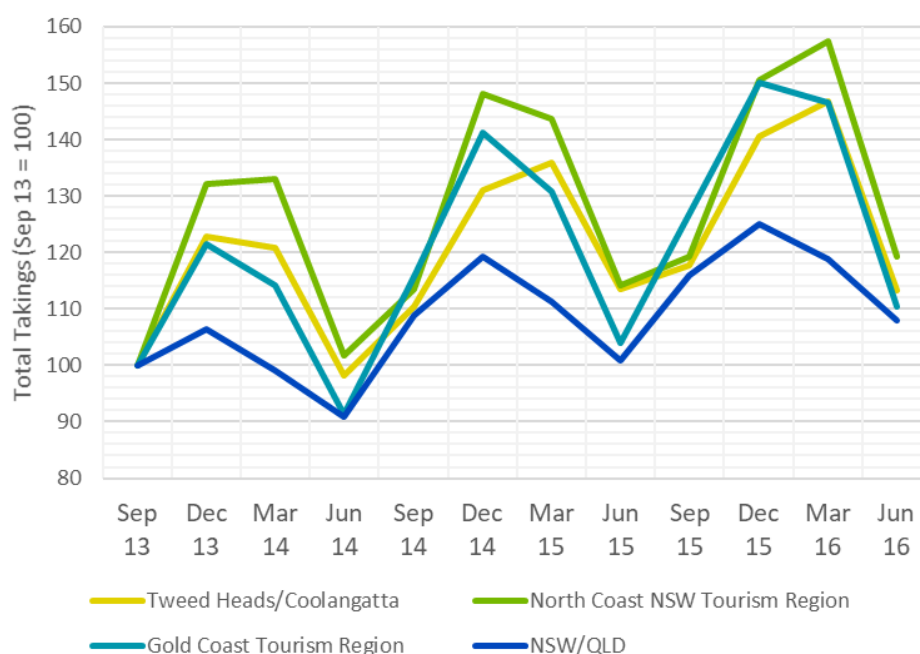
FIGURE 10: AVERAGE TAKINGS PER ROOM NIGHT OCCUPIED IN TWEED HEADS – COOLANGATTA AND BENCHMARK REGIONS (2013-14 TO 2015-16)



SGS Economics and Planning 2018; data from ABS Cat. No. 8635.0 (Tourist Accommodation, Australia)
Data releases from 2013-14, 2014-15, and 2015-16

To assess whether tourist accommodation in Tweed Heads Coolangatta has increased its competitive position relative to the benchmark areas used in this part of the analysis, we can examine the total takings for tourist accommodation, as shown in Figure 11 below.

FIGURE 11: INDEX OF TOTAL TAKINGS TWEED HEADS – COOLANGATTA AND BENCHMARK REGIONS (2013-14 TO 2015-16; SEP 2013 = 100)

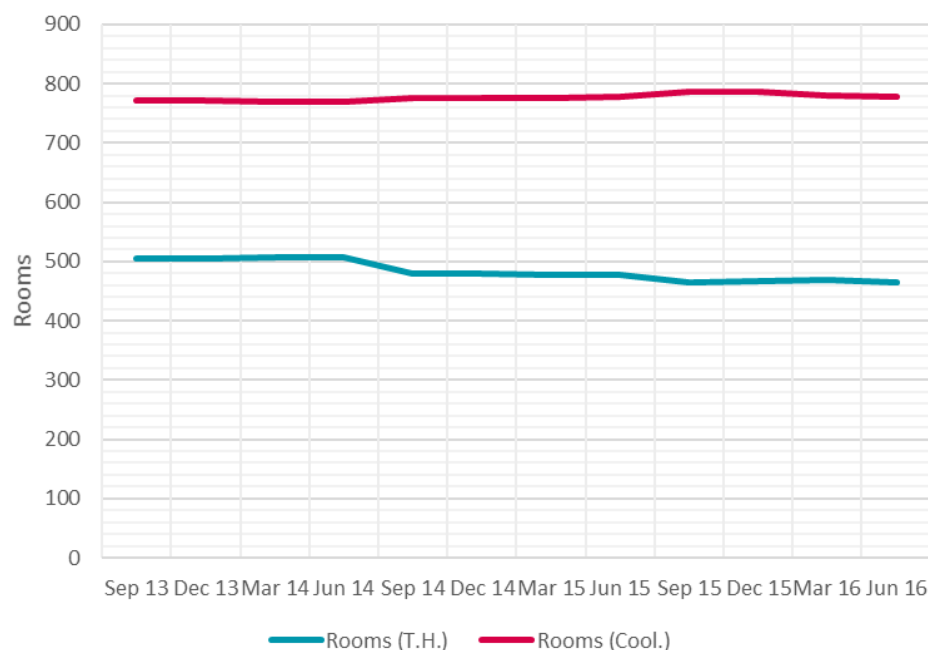


SGS Economics and Planning 2018; data from ABS Cat. No. 8635.0 (Tourist Accommodation, Australia)
Data releases from 2013-14, 2014-15, and 2015-16

As the volumes in this measure would vary significantly between the benchmark regions owing to their different sizes, this has been presented as an index, where the September quarter of 2013 is set to a score of 100. Based on this assessment, Tweed Heads – Coolangatta has largely followed the trend observed in the benchmark regions and has not displayed any significant growth or decline which can be explained by some kind of competitive advantage or disadvantage in the local area.

To examine the conditions within Tweed Heads and Coolangatta itself, a comparison is drawn between the NSW and Queensland parts of focus in Figure 12 and Figure 13 below. Figure 12 shows the total number of rooms available in each of the two areas, and Figure 13 shows the average takings per occupied room on the left axis (solid lines) and the occupancy rate on the right axis (dotted lines).

FIGURE 12: COMPARISON OF TWEED HEADS AND COOLANGATTA – SUPPLY OF TOURIST ACCOMMODATION (ROOMS; 2013-14 TO 2015-16)

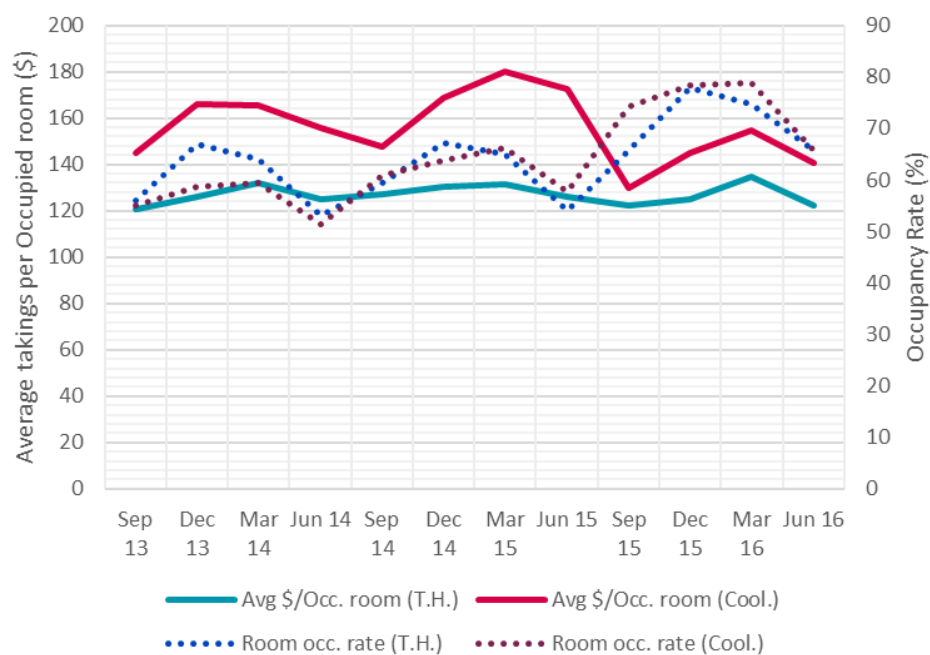


SGS Economics and Planning 2018; data from ABS Cat. No. 8635.0 (Tourist Accommodation, Australia)
Data releases from 2013-14, 2014-15, and 2015-16

Figure 12 identifies that an increased supply of rooms within Coolangatta (770-785) when compared to Tweed Heads (around 460-505) is largely reflective of the differences in built form between the two areas. The Queensland side of the border has a greater number of high-density developments, and overall the spatial distribution of tourist accommodation within Tweed Heads – Coolangatta is concentrated along the beachfront areas. This concentration is also observed on the NSW side of the border, with accommodation in Tweed Heads being predominantly located close to Queensland border.

Figure 13 shows that the while the occupancy rate between the two areas is relatively comparable, implying that there was little variance in demand between the two areas, the average takings per occupied room is consistently higher within Coolangatta.

FIGURE 13: COMPARISON OF TWEED HEADS AND COOLANGATTA – OCCUPANCY RATES AND TAKINGS PER OCCUPIED ROOM (2013-14 TO 2015-16)



SGS Economics and Planning 2018; data from ABS Cat. No. 8635.0 (Tourist Accommodation, Australia)
Data releases from 2013-14, 2014-15, and 2015-16

Findings

The analysis above has indicated:

- That there has been a slight increase in demand for tourist accommodation within Tweed Heads – Coolangatta
- The area is a lower-cost destination, more in line with the regional areas which make up the NSW North Coast tourism region than the Gold Coast.
- Tourist accommodation in Coolangatta is identified as being of higher cost and in greater supply than Tweed Heads and the accommodation in both areas is concentrated in areas adjacent to the beachfront.

3.4 Survey analysis

Introduction

A survey of staff at TTH was undertaken by Elton Consulting on behalf of NSW Health Infrastructure between the 30th November and 4th December 2018. The survey had several purposes, however the purpose of relevance to this report was to examine how many staff shopped or utilised services that they paid for in Tweed Heads. The intention was to better understand the impact that the hospital's relocation away from Tweed Heads would have on the local economy, as a result of reduced expenditure.

The survey interviewed 51 staff. The full methodology and limitations are included in the survey summary of findings report that are found in Appendix 1 of this report. It is noted that SGS did not commission this study, but instead worked with NSW Health Infrastructure to identify questions that would provide an insight into the expenditure patterns of hospital staff. The survey did not capture the dollar amounts of those surveyed, but captured qualitative sentiments and comments made.

Survey limitations

The Elton report identifies limitations of the survey, but further to this, it is acknowledged that this survey did not capture supply chain linkages that local businesses may have supplying goods or services to the hospital. How elastic these supply chains are (if indeed they exist – this has not been examined) is unclear, however the fact that the hospital is in fact not only relocating a short distance away but increasing its scale is unlikely to severely compromise such relationships.

Secondly, the survey did not assess the role that visitors of patients to the hospital have on the local economy, in terms of contribution to accommodation overnight stays and food and beverage consumption.

Survey findings

The survey found a number of complementary themes regarding expenditure by hospital staff in the Tweed Heads local economy. These have been summarised from the Elton report.

- A significant majority of participants drive to TTH and therefore the new hospital's location is not considered to be a major impact. Those staff residing in NSW identified that they will have similar or even improved journey to work times when the hospital moves location.
- All staff interviewed used the on-site hospital cafeteria whether buying there or bringing in food from home. Only 4 of the 51 respondents left the hospital to purchase lunch or coffee, and only occasionally.
- The majority (49 out of 56 respondents) of those interviewed did grocery shopping close to home or on their way home, at a location that was convenient to them. Of the 51 surveyed, only 2 identified using the local Tweed Mall to do their grocery shopping due to its proximity to the hospital.
- Interviewees noted that fuel was purchased as convenient or on price, not based on proximity to work or home.
- No staff interviewed had children currently in child care or used elder care. Those that have previously utilised child care noted that proximity relative to the hospital, rather than place of residence, would be the preference.

Implications of survey results

There are two major findings from this survey that are pertinent to understanding the local economic and social issues of the hospital's relocation away from Tweed Heads.

The first is that there appears to be a very low engagement by hospital staff with local shops during or after work hours. This indicates that the relocation of the hospital and the transfer of its staff is unlikely to have a significant negative impact on local trade.

The second is that the social impact of increased journey times by staff is either marginal and not considered a major issue or, in some case, actually a benefit as the new hospital's location may decrease journey times to work.

3.5 Summary of findings

The analysis contained within the chapter has been distilled into a number of the most salient points:

- Both the resident workforce and the jobs located within Tweed Heads – Coolangatta display a prominence of population serving industries. This is partially owing to the influence of tourism within the area, however it is likely to be substantially driven by the residential character of the areas under consideration and the position of Tweed Heads – Coolangatta in the centres hierarchy throughout the Tweed Valley region. Increases in population within the region will serve to grow demand within these industries.
- Knowledge intensive and industrial activities typically present at notably lower rates than the average across NSW and Queensland, resulting in the area being unspecialised in many of these industries in terms of both jobs and the number of employed residents. This indicates that the viability of these uses would likely be constrained in the area, particularly in regard to footloose professional or financial services, given that these activities seek out concentrations of similar or supportive firms and a suitable labour market.
- Employment within the Healthcare and Social Assistance industry represents a significant part of total employment within the areas examined and while hospitals constitute a large proportion of this employment, it is spread across a variety of subclassifications. Aged care services constitute a considerable proportion of employment within these industries.
- The resident population within the workforce catchment is ageing, with a higher than average proportion of residents aged 65 years and over, and a higher proportion of residents approaching retirement age. This indicates that further shifts towards population serving industries and aged care services into the near future.
- Whilst tourism is important in the area, Tweed Heads – Coolangatta does not display a particularly significant competitive advantage over the comparison regions. On a small-area level, the bulk of tourism activity is concentrated along the beachfront within Tweed Heads – Coolangatta, with the current hospital site being substantially disconnected from this area. As such, it is not anticipated that it would present a highly attractive location for the development of tourist accommodation.
- The employees of the hospital have a limited engagement with businesses in the surrounding area, with the survey results indicating that there was very little economic input in terms of worker spend originating from the hospital. This indicates that moving the hospital would not likely cause significant disruption to patterns of trade or threaten the viability of retail or food businesses within the area.

4. ALTERNATIVE USES AND IMPACTS

4.1 Introduction

The preceding chapters identify a number of trends that identify potential opportunities for the current hospital site, once the hospital relocates and vacates the site. While ultimately discussions between the state government as the current owner and potential future owners will progress the site's future use, this chapter identifies several uses that appear to be suited to the location.

Each have been assessed on their relative opportunities and constraints.

In summary, these potential uses are:

- Aged care residential / retirement living
- Residential development
- Commercial or government development
- Tourism
- Accommodation
- Education
- Retail
- A mixed use development

Following each assessment, a qualitative 'likelihood of success' rating is applied as one of three categories:

- **Suitable** – the site is suited to this potential land use
- **Potential** – there may be demand but would require effort to cultivate strong case
- **Unlikely** – uses that would not likely succeed on site.

Both the Tweed Heads Economic Development Strategy and Tweed Heads town centre masterplan were predicated on the hospital remaining. All of these proposed uses are therefore at odds with these existing strategies because they assume the relocation of the hospital. The Regional Economic Development Strategy, prepared after the announcement of the relocation does acknowledge the need to develop alternative land uses. This section provides guidance on what these may be.

4.2 Potential future site uses

Aged care residential / retirement living

Rationale

The preceding chapters identify that the population in the Tweed region is skewed towards an ageing population (65+) compared with the QLD and NSW populations as a whole. The north coast of NSW and QLD is known as a destination for retirees. The site therefore presents an opportunity to develop as a retirement village or aged care facility.

Opportunities

- **Provide for ageing population.** The surrounding region has a relatively high population over 65 years and is expected to continue to grow.
- **Engagement with local economy.** An active population in a retirement village will have regular engagement within the local Tweed Heads economy, utilising shops, café and restaurants and other local services.
- **Create demand for remaining local health services.** An increase in retirees or those who require aged care would benefit from and support the remaining local health care services that are expected to stay in Tweed Heads once the hospital relocates.
- **Proximity to local social infrastructure.** The site is adjacent the Tweed Heads Bowling club and local library. Both these uses would support integration with an active ageing population without the need for car-based travel.
- **Good site amenity.** The site is situated on the Tweed River and would provide for an attractive location for a retirement village.
- **Surrounded by residential.** A retirement village or aged care facility is a form of residential development. It would complement the existing surrounding uses to the north and south of the site.
- **On-site care.** Depending on the type of facility, an aged care home would have medical staff on-site to assist with resident care. For those who require proximity to medical services, development of such a facility may appeal to them as they age, enabling ageing-in-place while mitigating the need for proximity to the hospital itself.
- **Alignment with labour market.** The residential aged care sector already accounts for over 2,100 jobs in the wider region. The industry has a Location Quotient of 1.26 indicating a relative specialisation of the workforce that could support the growth of this sector in Tweed Heads. Given the link between this industry and population growth, a growing ageing population is likely to drive demand for this type of use in the future.

Constraints

- **Changes to traffic.** Depending on the function and degree of mobility of the residents, such a use may increase, or at the very least, change, the private vehicle-based traffic movements on the site.
- **Loss of community function.** The hospital serves a clear community function. The community role of an aged care or retirement village will be determined by the amount of aged care support it were to provide (e.g. palliative care versus retirement village). A use with a higher proportion of active, independent living is likely to be more residential in character and would reduce the social infrastructure role of the site.

Success rating

This use is considered SUITABLE

Residential

Rationale

The site is well suited to residential development given its location and amenity. The site could be developed as medium or high density development (subject to planning and design controls and development feasibility), given the population growth projected in the Tweed Region.

Opportunities

- **Engagement with local economy.** An increased residential population will have regular engagement within the local Tweed Heads economy, utilising shops, café and restaurants and other local services. Of benefit will be the walkability of the site to the Tweed Heads town centre.
- **Create demand for remaining local health services.** An increase in resident population of Tweed Heads will increase the rationale for the retention of local health facilities in the town centre.
- **Proximity to local social infrastructure.** The site is adjacent the Tweed Heads Bowling club and local library. Both these uses would support integration with an increased residential population without the need for car-based travel.
- **Good site amenity.** The site is situated on the Tweed River and would provide for an attractive location for residential development. The site is likely to attract significant market interest.
- **Utilisation of public transport.** Tweed Heads is serviced by regular public transport. Residential development in an existing centre reduces the need for new public transport routes compared with greenfield sites, assuming there is sufficient capacity in the current public transport system. It also reduces the need for car-based travel.
- **Provision of affordable housing.** Residential development could provide a proportion of affordable housing to meet demand in the local area, particularly in an area with good accessibility.

Constraints

- **Changes to traffic.** Depending on the function and degree of mobility of the residents, such a use may increase, or at the very least, change, the private vehicle-based traffic movements on the site.
- **Loss of community function.** The hospital serves a clear community function. Residential development would reduce the social infrastructure role of the site.
- **Opportunity cost for future development.** If the site is developed as residential strata (which would be likely), it would make it very difficult for the site to change to another land use in the future.

Success rating

This use is considered SUITABLE

Commercial or government use development

Rationale

The site could transition from its current employment function to another function, either as a site for commercial development or government office functions such as state or commonwealth government decentralisation policies to re-locate certain government agencies or function to regional areas.

Opportunities

- **Replacement of one employment use with another.** At the time of the 2016 ABS census the site employed approximately 1,200 people. Development of commercial or government function would reduce the loss of employment from the Tweed Heads town centre and retain a non-retail anchor employment role for the centre.

Constraints

- **Lack of competitive advantage.** Tweed Heads is not known as a commercial centre. Businesses seeking new commercial development opportunities or floorspace are likely to be attracted to more established commercial centres such as the Gold Coast or even Byron Bay, or specialised precincts such as adjacent Gold Coast Airport, where they can leverage business to business relationships or appropriate supportive infrastructure.
- **Site scale.** The site is approximately four hectares in size. For the purposes of comparison, some riverfront blocks in the Brisbane CBD are one hectare. The scale of development to convert this to commercial use is extreme and there is almost certainly insufficient demand from the type of businesses that would seek such a development to locate in Tweed. Smaller, locally-based commercial floorspace (such as tax accountants) would likely look for centre of town locations.
- **Site is out of centre.** The site is not contiguously linked with the Tweed Heads town centre. Instead, enclosed retail malls and residential development separate the site from the Town Centre. This is likely to further disincentivise commercial development.
- **Alignment with industry specialisation.** Much of the likely growth observed in the region has been from population-serving uses such as retail. There are low growth rates observed in 'Knowledge Sector' industries which are most closely aligned with commercial office developments, indicating low demand for this type of built form in Tweed Heads.

Success rating

This use is considered UNLIKELY

Tourism

Rationale

Tweed Heads and the wider area are known tourism destinations both regionally and internationally. The development of a tourism drawcard may provide an alternative economic anchor for Tweed Heads. While no specific design or testing has been undertaken, for the purposes of illustration, this could include, for example, an aquarium, museum, theatre or gallery, water park etc.

Opportunities

- **Development of replacement economic attractor.** The hospital is identified in various economic development strategies as an economic anchor for Tweed Heads. Replacing this with a tourism-focused anchor will bring visitors to the town and, depending on what it is, even the region. This would likely have a positive impact on

expenditure in the local economy, both through retail, food and beverage, as well as accommodation. While no information has been obtained as to the number of accommodation stays in Tweed Heads that are directly linked to the hospital, a tourism use could offset any loss.

- **Site scale and location.** The site is large and provides the opportunity to accommodate a range of different tourism opportunities, with on-site car parking opportunities to minimise the impact on the surrounding streets.
- **Cultural facility co-location.** Depending on the use, the development of a tourism destination could complement the existing social infrastructure in the surround area, including the library, marinas and bowling club.

Constraints

- **Changes to traffic.** Depending on the function, the development of a tourism anchor may increase, or at the very least, change, the vehicle-based traffic movements on the site. However, the site's scale is likely to enable parking on site.
- **Differ from existing Economic Development vision.** Both the local and regional economic development strategies are predicated on the retention of a health focus for Tweed Heads. A tourism attraction would be quite removed from the ancillary strategies already in place and would need to be managed.

Success rating

This use is considered **POTENTIAL**

Accommodation

Rationale

The North Coast of NSW and Gold Coast of QLD is a regionally and internationally recognised tourism destination. The site could provide a different accommodation product to complement the established hotel and serviced apartment offer in Coolangatta.

Opportunities

- **Complement the role of Coolangatta.** The beachside draw of Coolangatta has attracted a high amount of hotels or serviced apartments. A tourism attraction on the site would add another reason for visiting, beyond the beachside location. Analysis of occupancy rates of existing hotels in the Tweed Heads-Coolangatta area do not indicate significant increase in demand. Given the site's distance from the beach, the opportunity for a hotel on site may be lower than an alternative accommodation use such as a Holiday Park.
- **Site scale and location.** The scale and location could accommodate a holiday park-style development as a variety of tourism accommodation. By way of comparison, the Tweed Coast Holiday Park: Kingscliff North, is approximately 25% of the size of the hospital site.

Constraints

- **Relative attractiveness of Coolangatta for hotel development.** For various reasons, including the beachside location, Marine Parade in Coolangatta is likely to continue to attract hotel and serviced apartment development given its relative amenity advantage over the site's riverside frontage and lack of direct access to the beach.
- **Development feasibility.** While no feasibility assessment has been undertaken as part of this study, the demolition of the hospital, to replace it with a low-density budget holiday option may mean that the development does not make financial sense.

Success rating

This use is considered **POTENTIAL**

Education

Rationale

The site is well located near an existing population and its size could accommodate a new school or possibly a university campus.

Opportunities

- **Well located site.** Close to public transport and existing community, a new school would be well suited to locating on the site.
- **Retain state government control.** Transferring ownership between state government agencies provides an opportunity for the state government to deliver social infrastructure in the form of a school in a growing area with low or no site acquisition costs.
- **Provide in-centre campus location.** The site's scale is comparable to the Southern Cross University Gold Coast Campus adjacent the Gold Coast Airport (including the significant amount of parking provided at the campus). A riverside location would provide high amenity, better public transport access and proximity to local services and may be attractive for future campus expansions by Southern Cross University or others.

Constraints

- **Current school infrastructure investment.** NSW Schools Infrastructure and the NSW Department of Education are currently upgrading schools in the region. It is therefore unlikely that the site is required, although further consultation with the Department may provide further insight.
- **Student growth not projected to be significant.** The growth in school-aged children does not appear to require the development of schools above and beyond what is currently underway. Again, discussions with NSW Department of Education may provide more detail here.
- **Recent investment in university.** The Gold Coast campus of Southern Cross University is relatively new. It is unclear if there are future campus expansion or relocation plans. The development of the new Tweed Valley Hospital adjacent the TAFE NSW Kingscliff Campus also presents a compelling opportunity to establish a larger health and education precinct over the long term.

Success rating

This use is considered POTENTIAL

Retail

Rationale

Retail is a population-driven industry. With population expected to grow, the provision of sufficient retail floorspace is important to ensure future residential needs are met.

Opportunities

- **Growing population.** The population around Tweed Shire is projected to grow over the coming years. It is important that there is sufficient retail development to meet this future growth. Concentrating retail in centres rather than out-of-centre retail developments increases the vibrancy of a centre. If balanced sufficiently against the type of retail demand expected, the existing town centre traders are likely to benefit from an increase in retail and the visitation it induces.

Constraints

- **Impact on existing retail balance.** Tweed Heads already has a mixture of strip retail along Wharf Street and a significant enclosed shopping centre (Tweed Mall) and the Tweed City Shopping Centre in Tweed South. The addition of *another* retail destination away from the centre of town runs the risk of unbalancing trade and over-supplying retail in a dispersed way.
- **Population growth projected to the south.** It is expected that much of the population growth is expected further south on the outskirts of Kingscliff. Provision of additional retail in Tweed Heads rather than in closer centres will increase vehicular travel, possibly unnecessarily.
- **Changes to traffic.** A new major retail centre will likely increase the vehicle-based traffic movements in and around the site. However, the site's scale is likely to enable parking on site.

Success rating

This use is considered UNLIKELY

Mixed development through site sub-division

The size and relative attractiveness of the site for several potential uses does mean that the site could potentially be sub-divided and utilised for a range of uses under a mixed use development. While not all identified uses above would comfortably co-locate, the ability for residential or aged care and social infrastructure such as a school may work if development feasibility and site design controls allow it.

4.3 Summary of findings

This chapter demonstrates that there are a number of possible uses that could replace the hospital when it relocates. While each have different characteristics and impacts, there are several recurrent positive social and economic impacts on the local Tweed Economy.

- **Increased expenditure in the town centre.** Many of the uses would likely increase the expenditure in the local economy. Residential and retirement villages would bring an increased population who would utilise local shops and facilities such as the bowling club. Tourism would attract people into the town centre who may not otherwise visit and this is likely to have a flow-on impact to local expenditure, particularly in cafes and restaurants. Accommodation uses such as a holiday park would also bring visitors into the local economy.
- **Provision of new economic anchor.** The establishment of a tourism anchor such as a gallery or adventure park would likely attract other complementary uses near to the site and into the wider centre. With the relocation of the hospital, Tweed Heads could re-position its economic development strategy towards supporting such a use.
- **Meeting demands of ageing population.** The population of the Tweed and surrounding regions is expected to continue increase its proportion of people aged 65 and over. Evidence indicates too that there is an inward migration of those aged 65 and over from outside of the region. The provision of certain age-care related facilities or retirement village would help to meet this demand and in so doing, provide a social benefit to the region.
- **Provision of social or cultural infrastructure.** The development of the site for cultural or education functions would increase the range of social infrastructure for residents of Tweed Heads and surrounds.

While the loss of the hospital will be felt locally by some, at least in the short term, the site presents a number of locational characteristics that make it attractive for a number of other

uses that will likely have a positive impact on the local Tweed Economy. Table 8 summarises the 'likelihood of success' ratings for each of the proposed use.

TABLE 8: COMPARISON OF PROPOSED USES AGAINST KEY LOCAL IMPACTS

Potential future use	Likelihood of success
Aged care residential / retirement living	SUITABLE
Residential development	SUITABLE
Commercial or government development	UNLIKELY
Tourism	POTENTIAL
Accommodation	POTENTIAL
Education	POTENTIAL
Retail	UNLIKELY

SGS Economics and Planning 2018;

Further to this analysis, each potential use is summarised against the three overarching issues raised through consultation:

1. Impact on local residents who require hospital-related services
2. Impact on local businesses from reduction in people working in Tweed Heads
3. That the hospital was an economic anchor to build economic development strategies around.

Each use has been qualitatively considered as having a minor, moderate or high mitigation impact to offset the loss of the hospital from the local Tweed Heads economy.





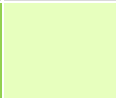
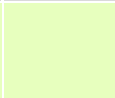
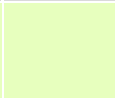
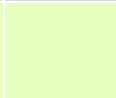
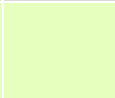
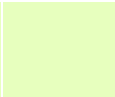





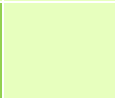
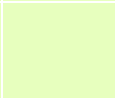

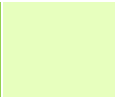




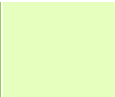
	Minor
	Moderate
	High

TABLE 9: COMPARISON OF PROPOSED USES AGAINST KEY LOCAL IMPACTS

Key impact	Aged care	Residential	Commercial /government	Tourism	Accommodation	Education	Retail
Impact on local residents who require hospital-related services							
Impact on local businesses from reduction in people working in Tweed Heads							
That the hospital was an economic anchor to build economic development strategies around							

SGS Economics and Planning 2018;

This table does not determine which is therefore the *best* use for the site, as it does not consider the limitations that are identified for each in Section 4.2. An example of this is that although commercial uses may address the some of these uses, the market depth to support such development is unlikely. What it does identify though is that each of the options proposed will help to mitigate the issues raised to varying degrees.

On balance, four uses stand out as potential future uses for the site:

- Aged care or retirement living
- Residential
- Tourism
- Accommodation

5. INDIRECT ECONOMIC IMPACTS (WIDER ECONOMIC BENEFITS)

Following the initial assessment of economic impacts, a more comprehensive analysis of the indirect economic benefits has been undertaken.

An economic impact assessment measures the total economic impact of a project on a region, by combining the direct impacts of the project with the **indirect impacts**.

Quantification of the indirect economic impacts have been undertaken for this report using the CEGEM model, a Computable General Equilibrium (CGE) modelling framework.

CGE models have proven to be the ideal tool for analysing major policy changes or large projects where impacts are felt throughout the whole economy. The key to their success is their capability to model the detailed structure of an economy and the economic behaviours of multiple economic agents such as governments, consumers and producers.

These models are explicitly recognised by the NSW Treasury as an economic appraisal method that is useful to supplement information contained in a detailed CBA.¹ In the case of modelling the Tweed Valley hospital, the CGE modelling considers the broader economic impacts of the project in terms of potential flow on effects to investment, employment and other industries, while at the same time considering competition for resources or ‘crowding out’ effects.

5.1 Overview of model

The estimates are based on the Cadence Economics General Equilibrium Model (CEGEM). CEGEM is a large scale, dynamic, multi-region, multi-sector model of the global economy, with an explicit representation of the NSW economy. In this application, the Byron and Tweed region is separately identified as an aggregate region through which the economic shocks may be applied.

Like all economic models, CEGEM is based on a range of assumptions, parameters and data that constitute an approximation to the working structure of an economy. The core model code of CEGEM is built around the concepts of the GTAP² model, with government consumption, household consumption and industry production governed by microeconomic theory. The model is based on the following key assumptions:

- Labour, capital, land and a natural resource comprise the four factors of production. On a year-by-year basis, capital and labour are mobile between sectors, while land is mobile across agriculture. The natural resource is specific to mining and is not mobile. A representative household in each region owns all factors of production. This representative household receives all factor payments, tax revenue and interregional transfers. The household also determines the allocation of income between household consumption, government consumption and savings.
- Capital in each region of the model accumulates by investment less depreciation in each period. Capital is mobile internationally in CEGEM where global investment equals global savings. Global savings are made available to invest across regions. Rates of return can differ to reflect region specific differences in risk premiums.

¹ NSW Treasury (2017), NSW Government Guide to Cost-Benefit Analysis, Policy and Guidelines Paper TPP 17-03, March 2017.

² Hertel (1997), Global Trade Analysis: Modeling and Applications, Cambridge University Press, Cambridge.

- The model assumes labour markets operate in a model where employment and wages adjust in each year so that, for example, in the case of an increase in the demand for labour, the real wage rate increases in proportion to the increase in employment from its base case forecast level.
- CEGEM determines regional supplies and demands of commodities through optimising behaviour of agents in perfectly competitive markets using constant returns to scale technologies. Under these assumptions, prices are set to cover costs and firms earn zero pure profits, with all returns paid to primary factors. This implies that changes in output prices are determined by changes in input prices of materials and primary factors.

CEGEM is a recursive dynamic model that solves year-on-year over a specified timeframe. The model is then used to project the relationship between variables under different scenarios over a predefined period. A typical scenario is comprised of a reference case projection that forms the basis of the analysis. In this instance, the reference case assumes that the Tweed Valley hospital is not activated. Set against this scenario is the policy or project scenario under consideration. Under this scenario, the Tweed Valley hospital is activated.

Economic impacts are measured in terms of output (\$ millions), gross regional product (\$ millions) and additional full time equivalent (FTE) jobs, and are presented as deviations off the reference case projection. For example, a GRP impact of \$10m in 2020 is interpreted as GRP in the Byron and Tweed region being \$10m higher than it would otherwise have been (i.e., in the reference case scenario) in 2020.

A definition of each of these impacts is provided below:

Output is a measure of spending in the economy. **Direct output** is the initial spending related to the delivery of the project (capital outlay and additional operating costs in this case). Output multipliers are applied to the direct output to calculate the **indirect output** (subsequent spending) that is generated. The sum of direct output and indirect output is referred to as **total output** and is measured in \$ millions.

Gross Regional Product (GRP) is the regional analogue of the more familiar Gross Domestic Product, or GDP. GRP is a measure of the total final production of an economy, and is a commonly used measure of economic activity.

Employment positions are created during the value adding process and are measured in terms of Full Time Equivalent (FTE) jobs created over the course of the project (hospital construction and operation in this case).

Method

In general terms, the key steps in undertaking an assessment of indirect impacts involves:

1. Isolating how the project stimulates the regional economy (direct impacts).
2. Generating a region specific version of the CEGEM model.
3. Calculating total regional impacts by applying the identified economic “shocks”.

As noted above, employment, gross regional product and output impacts have been measured compared to the base case and reflect the expected impact of additional spending, employment and output under the preferred option.

Within the Tweed and Byron modelling region a labour supply elasticity of 0.3³ has been chosen. This choice is motivated by previous modelling undertaken by the Australian Treasury⁴, which applied a national labour market elasticity of 0.15 with a high side sensitivity of 0.3.

Our selection of 0.3 is motivated primarily by the relatively soft labour market conditions identified in Table 10 below.

TABLE 10: UNEMPLOYMENT RATE, LOCAL CATCHMENT, NORTHERN NSW AND NSW, 2016

Area	Workforce	Unemployed	Rate
Local Catchment	49,289	3,662	7.4%
Northern NSW	113,984	9,017	7.9%
NSW	3,380,336	225,552	6.7%

Source: ABS Census Data (2016), Level of Employment, place of usual residence

5.2 Economic shock profile

The key data used to develop the economic shocks for the CEGEM model are the levels of output in construction, operations, and agriculture, expressed in millions of real 2016/17 Australian dollars, shown in Table 11 below.

The construction phase covers approximately \$540m over a five year period, peaking at \$238m in 2021, ceasing in 2024. Operations in the hospital commence in 2023, rising to the long run level of \$40.7m in 2027, which is maintained throughout the modelling period to 2048.

Against this, a small level of direct crowding out is identified in the Agriculture sector, with a small persistent reduction in Agricultural output of \$0.5 million.

TABLE 11: ECONOMIC SHOCKS FOR THE CEGEM MODEL - \$M OUTPUT

Year	Construction	Operations	Agriculture
2019	13.8	0.0	-0.5
2020	92.4	0.0	-0.5
2021	238.3	0.0	-0.5
2022	160.3	0.0	-0.5
2023	36.3	20.2	-0.5
2024	0.0	25.2	-0.5
2025	0.0	30.2	-0.5
2026	0.0	35.4	-0.5
2027- 2048	0.0	40.7	-0.5

Source: HI, SGS Economics and Planning, Cadence Economics 2018

³ That is, for every 1 per cent increase in the wage rate relative to the “without project” baseline, there is a 0.3 per cent increase in the effective labour supply.

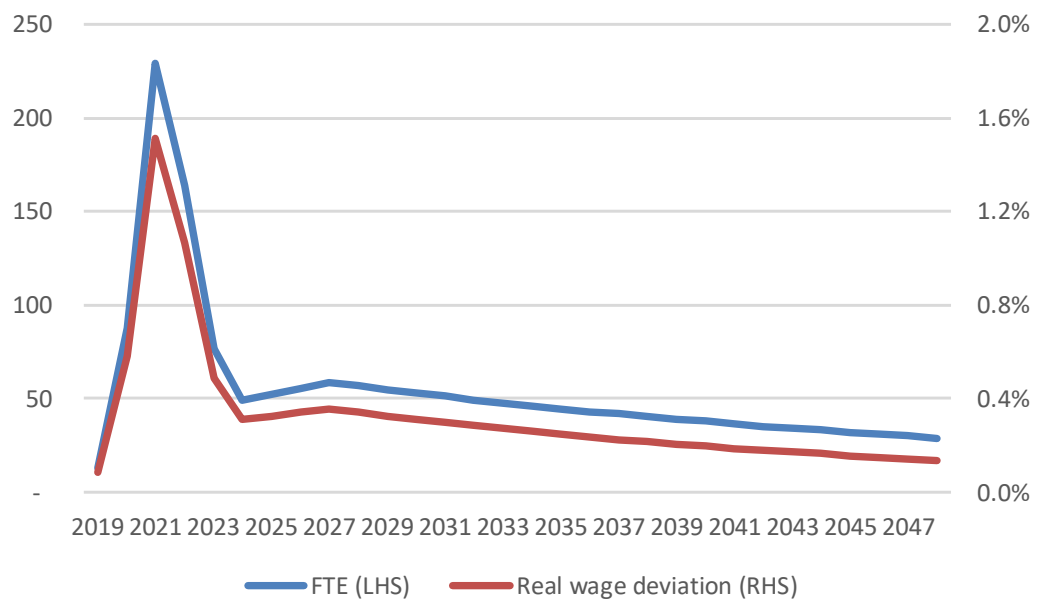
⁴ Kouparitsas, M, Prihardini, D & Beames, A 2016, Analysis of the Long Term Effects of a Company Tax Cut, Treasury Working Paper 2016-02, Canberra.

5.3 Regional employment creation

The construction and ongoing operation of the hospital results in a net increase in employment in the Byron and Tweed region over the life of the project.

Figure 14 shows both the net employment and region wide wage rate deviations in the Byron and Tweed region, peaking at a net employment increase in the peak of the construction period of 229 FTE, with a corresponding increase in wage rates (as measured against the reference case) of 1.5 per cent. Should this level of employment be met purely through existing unemployed persons (that is, with no response in the participation rate), this would correspond to a reduction in regional unemployment of approximately 0.5 per cent, well within reasonable bounds given the relatively high unemployment rate in the region compared to the rest of NSW.

FIGURE 14: IMPACTS ON REGIONAL EMPLOYMENT AND WAGE RATES



Source: HI, SGS and Cadence Economics estimates

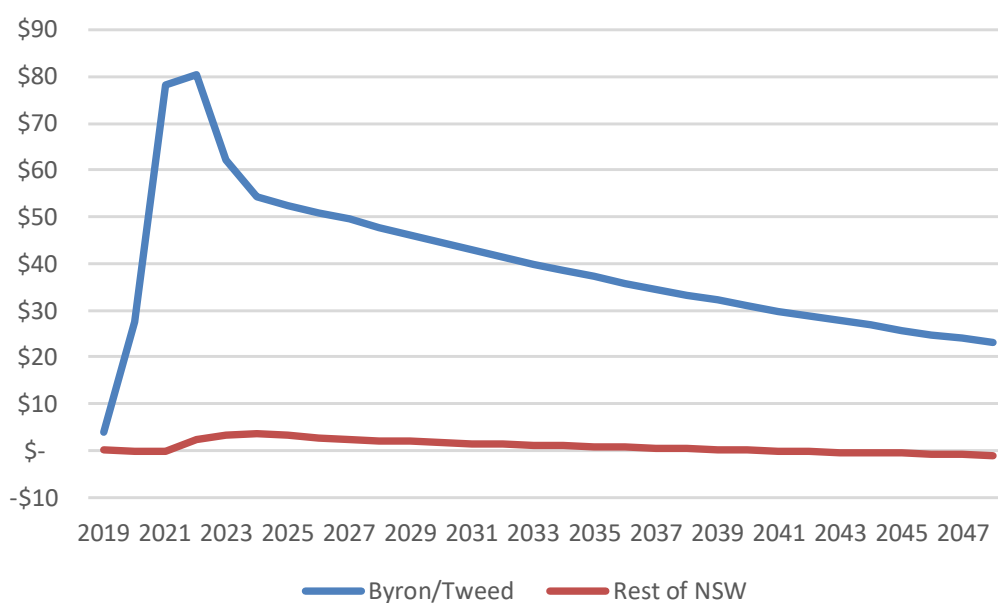
In the long run both employment and wage rate deviations moderate significantly, with a long run employment impact of approximately 30 full time equivalent positions in the region, and a long run wage rate increase of approximately 0.1 per cent.

5.4 Gross regional product

Economic output in the region is persistently higher due to the construction and operation of the hospital, as shown in Figure 15. The Byron and Tweed region experiences a peak increase in GRP of \$78 million in 2021 against the reference case, with a net present value increase of \$541 million over the modelling period.

Also presented in Figure 10 is the GRP result for the remainder of the state, demonstrating the limited economic impacts experienced outside the Byron and Tweed region. This shows mostly small positive impacts outside the Byron and Tweed region, with some very small negative (peaking at -\$1 million) impacts as activity is crowded out in the construction phase and at the very end of the modelling period. In net present value terms, the impact on the rest of NSW is small at \$16.3 million over the modelling period.

FIGURE 15: IMPACTS ON GROSS REGIONAL PRODUCT

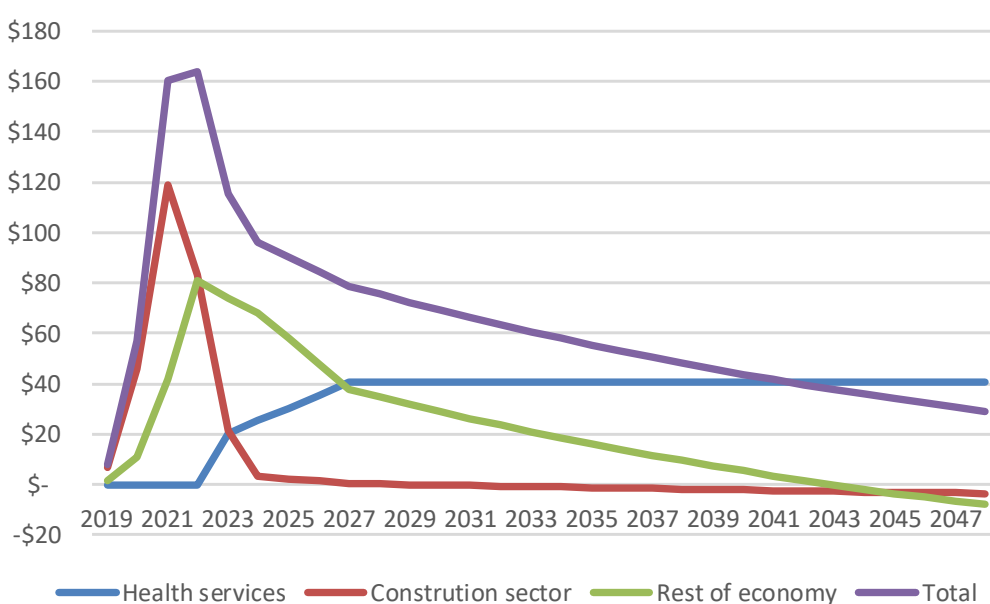


Source: SGS and Cadence Economics estimates

5.5 Sectoral output

The main impacts on sectoral output are, as expected, concentrated heavily in the construction sector in the short term and in the health services sector in the long run. The remainder of the economy is strongly positive in the majority of the modelling period, with local industry including business services, trade and manufacturing making strong contributions to both construction and ongoing operations, noting the crowding out identified above in the agriculture sector which has been specifically implemented in the economic modelling.

FIGURE 16: IMPACTS ON INDUSTRY OUTPUT



Source: SGS and Cadence Economics estimates

Summary

In net terms, the project is predicted to have a significantly positive net economic outcomes in terms of its effects on employment, output and gross regional product across the New South Wales economy.

6. CONCLUSION

This report examines (a) the opportunities and relative merits of a number of future uses on the Tweed Hospital site and (b) the employment outcomes in both the construction and operational phases of the project. These have been identified through a range of analytical lenses, including modelling, analysis of demographic and economic trends in the region, policy reviews and primary research commissioned by NSW Health Infrastructure on hospital employees.

There is currently no policy position on the future use of the site. Existing local strategies, including the Tweed Heads Economic Development Strategy and the Tweed Heads town centre masterplan, are predicated on the retention of the hospital as a major employment anchor.

This report assumes that notwithstanding HI's proposed HealthOne development (which will help to mitigate concerns surrounding ease of access to local health services), the site will become vacant once the hospital is relocated to the new Tweed Valley Hospital site. It then identifies potential future uses to inform discussions between the NSW State Government and Tweed Council⁵. These are based on the analysis undertaken and proposed with a view to mitigating the impact of the hospital relocation on the Tweed Heads local economy and community.

The findings of this report seek to balance the mitigation of identified local impacts with what uses are likely to be attracted to the hospital site and whether there is sufficient demand for them or advantage to that use in locating there.

⁵ This is a process to be undertaken within next 36 months, with a process to be developed to ensure substantial community input into the best future uses for the site.

APPENDIX 1

Appendix one is the Elton Consulting Hospital Staff survey commissioned by NSW Health Infrastructure. This survey was not commissioned by SGS, however its findings form part of the analysis contained in this report.

Tweed Valley Hospital

Staff Interviews Outcomes Report

Client: NSW Health Infrastructure

Date: 07 December 2018

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Version	1
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1 Background

Health Infrastructure acknowledges that an important part of planning a new regional referral hospital is delivering a workplace that meets the needs and aspirations of staff.

In November 2018, Elton Consulting was appointed to research staff aspirations in relation to the new major referral hospital to be located at 771 Cudgen Road, opposite Kingscliff TAFE. The research aimed to understand:

- » Staff experiences of the existing The Tweed Hospital as a *work place* - what works and what does not work.
- » Aspirations for the new Tweed Valley Hospital – what facilities and amenities would improve the hospital as a work place.
- » How facilities and amenities are accessed, including shopping, transport, child and elder care – and how will working at the new Tweed Valley Hospital change this.

1.1 Methodology

Data was collected from staff through a qualitative interview process, incorporating quantitative data collection through focussed questions.

Interviews were conducted at The Tweed Hospital on Thursday 30 November 2018, Friday 31 November 2018 and Tuesday 4 December 2018. Interviews were conducted with staff taking part in Project User Groups on Tuesday 4 December 2018, at the Tweed Valley Hospital Integrated Project Office.

Interviews at The Tweed Hospital were held at:

- » Within the cafeteria.
- » Within the courtyard area opposite the cafeteria.
- » Through direct approach of staff elsewhere in the hospital.

The variety of locations and time of day allowed for a range of staff to be captured, including those that utilise and do not utilise the cafeteria.

1.2 Limitations

The following limitations are noted:

- » The qualitative interview methodology resulted in a number of interviews that did not incorporate the full spectrum of questions asked, affecting the quantitative data collection.
- » Staff time constraints limited the depth of questions.
- » Time constraints limited the total number of interviews possible.

2 Interview Results

2.1 Range of Staff Profiles

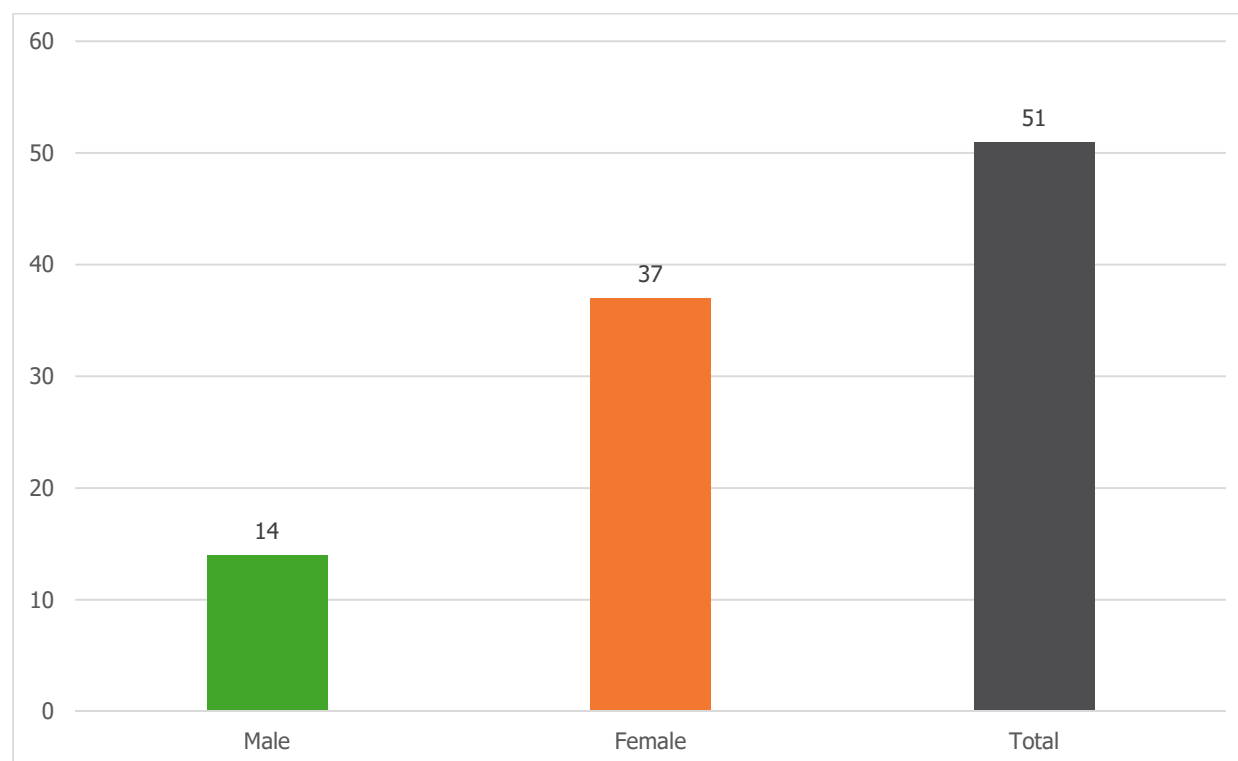
Interviews included staff members from the following areas within the hospital:

- » Surgical
- » Pharmacy
- » Mental Health
- » Drugs and Alcohol
- » Nursing
- » Security
- » Cafeteria / catering
- » Specialists
- » Students (Southern Cross University and Griffith University).
- » Chaplains
- » Cleaning / orderly

2.2 Demographics

A total of 51 staff were interviewed, including 14 males and 37 females.

Figure 1 Number of staff interviewed by gender and total



Note: Due to the interview methodology, age range was not captured.

2.3 Place of Residence

Where possible, the suburb of place of residence was captured. Staff were distributed across the region, and in Queensland, with the following suburbs noted:

- » Mudgeeraba
- » Tweed North
- » Tweed
- » Banora Point
- » Bilambil
- » Kingscliff
- » Pottsville
- » Casuarina
- » Murwillumbah
- » Southport
- » Robina
- » Surfers Paradise
- » Helensvale

The majority of staff interviewed were comfortable with the location of the Tweed Valley Hospital, noting that:

- » The difference in time to travel from Queensland suburbs to Kingscliff was viewed as marginally different.
- » Staff residing in New South Wales suburbs identified either similar travel times, for example from Banora Point, or improved travel times, for example from Pottsville, Murwillumbah and Casuarina.
- » One staff member noted that the majority of their colleagues reside in Queensland, and questioned how they would get to work in a major flood event with roads cut off.

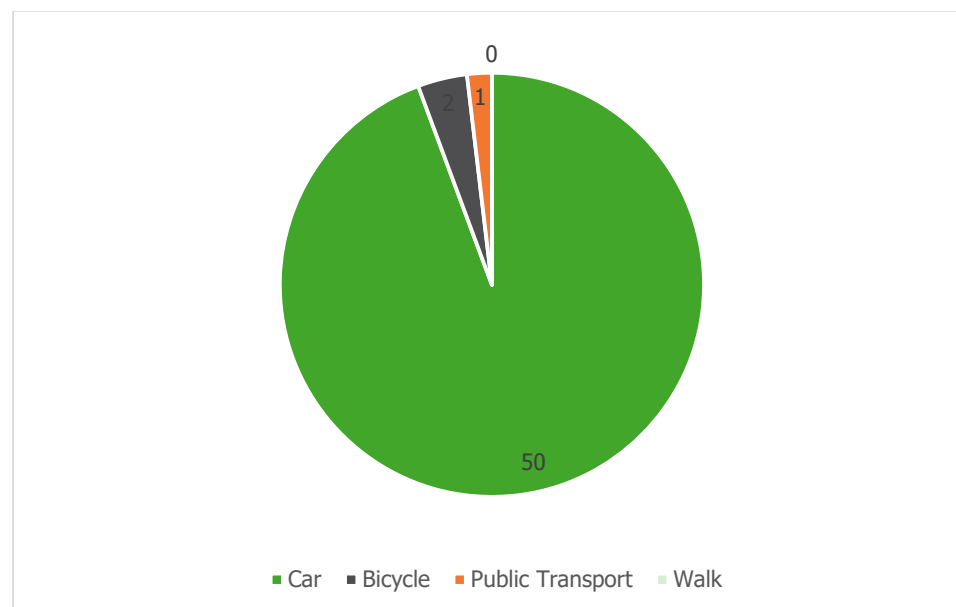
2.4 Mode of Transport

Staff were asked how they travel to work. This question was often preceded by staff members identifying parking as a current issue, and aspiration for improved parking at Tweed Valley Hospital.

Of the 51 staff interviewed, only 1 used public transport to work, because they do not own a vehicle. They went on to explain that they would drive if they owned a vehicle, and would hope to own one before the new Tweed Valley Hospital opens.

Two staff members noted that they have in the past cycled to work, and may consider cycling to the new Tweed Valley Hospital. One staff member interviewed cycles to work occasionally.

Figure 2 Mode of Transport to Work



Key drivers underlying the decision to drive to work included:

- » Infrequency of existing public bus schedules.
- » Bus schedules not aligning with shift work.
- » Distance from home, and lack of availability of a public transport possibility.
- » Limited end-of-trip facilities for cyclists.
- » Shift work, with early and late starts.

No staff members interviewed car-pooled. The differences in shift work, with variations week-on-week and varied place of residents were cited as reasons not to carpool.

Key issues related to driving to work include:

- » Lack of parking.
- » Length of time it takes to walk to work from available on-street parking.
- » Security risks related to late night shifts, and the lack of available parking close to the hospital.



Implications and Aspirations for getting to work at the Tweed Valley Hospital:

- » The location was largely viewed as car dependent, with all staff interviewed noting they would drive to the new hospital.
- » Availability of dedicated parking for staff at the new hospital, close to the hospital, secure and well lit.
- » Cost of parking was raised, with a preference for free or reduced parking rates for staff.
- » Improved end of trip facilities, including showers and secure bicycle storage.

2.5 Lunch

Staff were asked where they mainly bought lunch or other meals during their shift / while at work.

All staff interviewed used the on-site cafeteria. The majority of respondents noted that they mainly utilise the on-site cafeteria, or brought food from home. Only four respondents left the hospital to purchase lunch or coffee, and only occasionally.

The main obstructions to leaving the hospital to purchase lunch or coffee included:

- » The limited time available for lunch (generally only thirty minutes),
- » The amount of time it takes to walk from the hospital to the nearest shop / coffee shop and back.
- » The fact that most coffee shops and other shops are driving distance, with the limitation on parking and potential to lose their parking spot near the hospital seen as the main discouragement from leaving.



Implications and Aspirations for lunch / refreshments at the Tweed Valley Hospital:

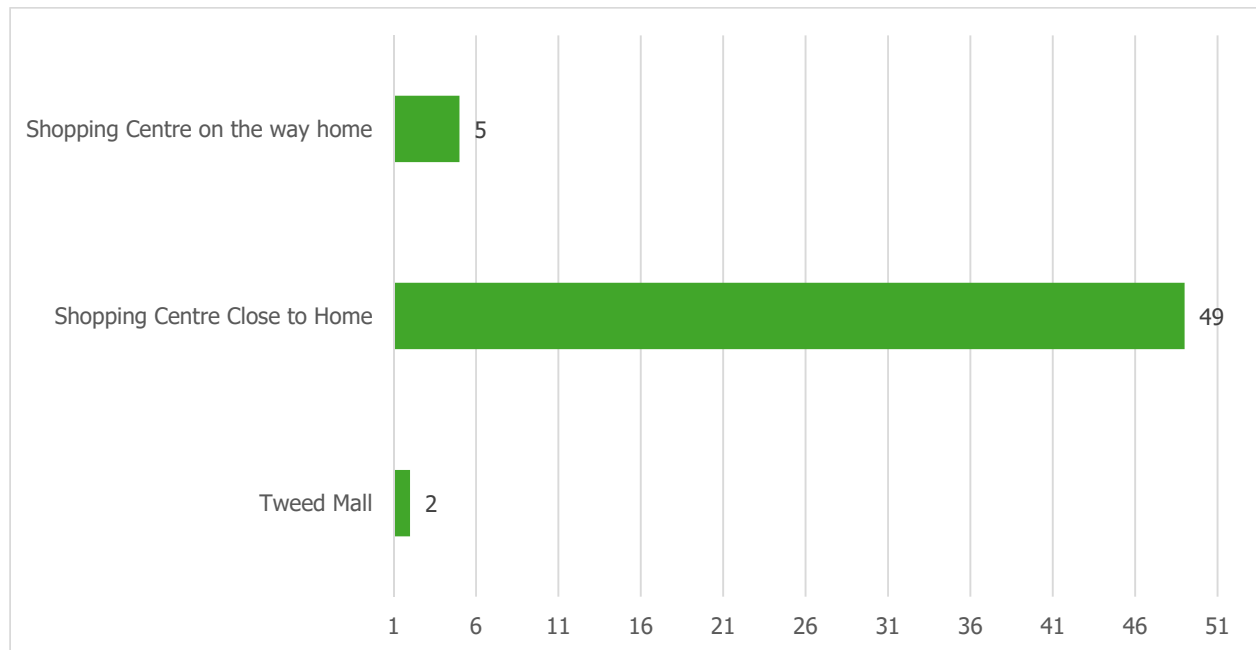
- » The limited time available for lunch is noted as unlikely to change, reinforcing the need for suitable on-site facilities. The distance of the hospital to alternative food options, except for Kingscliff TAFE, was noted by several staff.
- » Most staff interviewed listed a greater variety of food options (more restaurants / food court style), better quality food, and lower cost as high priorities at the new hospital.
- » A dedicated staff cafeteria, or seating area separated from patients.

2.6 Grocery Shopping

Staff were asked where they mainly completed grocery shopping, and how this would change when the new Tweed Valley Hospital opens.

The majority of staff noted that they either completed grocery shopping close to home, or at a shopping centre convenient on their way home.

Figure 3 Grocery Shopping



Only two staff interviewed undertook grocery shopping at the Tweed Mall. One staff member completed shopping at Tweed Mall as they are reliant on the public bus network, with their preferred bus leaving from the bus depot at Tweed Mall. One staff member completed shopping at Tweed Mall as it was the closest centre to their home.

The majority noted that they shop close to home, and that this would likely remain the same when the new Tweed Valley Hospital opens. The location of the Kingscliff Woolworths was viewed as a detour by many respondents, with shopping either on-route or close to home being preferable.

Approximately 10 respondents noted that they may stop at Tweed Mall after work to pick up one or two top-up items, however major shopping occurred close to home.

2.7 Fuel

Staff were asked where they fill up with fuel. All staff that responded to this question noted that they filled up as convenient, and based on the best available price, rather than in relation to either work or home locations.

2.8 Child and Elder Care

Staff were asked how they currently access child and elder care.

No staff surveyed had children currently in child-care, nor were responsible for elder care. The following concerns were however raised based on past experience, or knowledge of colleague's situations:

- » The most ideal situation is childcare in close proximity to the place of work, allowing for ease of drop-off and pick-up, or attending to children's needs during the day.
- » Many staff experienced issues with the time of operation of child-care facilities, and specifically that shift work required for hospital staff makes before office hours and after office hours care difficult to find, or very expensive.



Implications and Aspirations for childcare at the Tweed Valley Hospital:

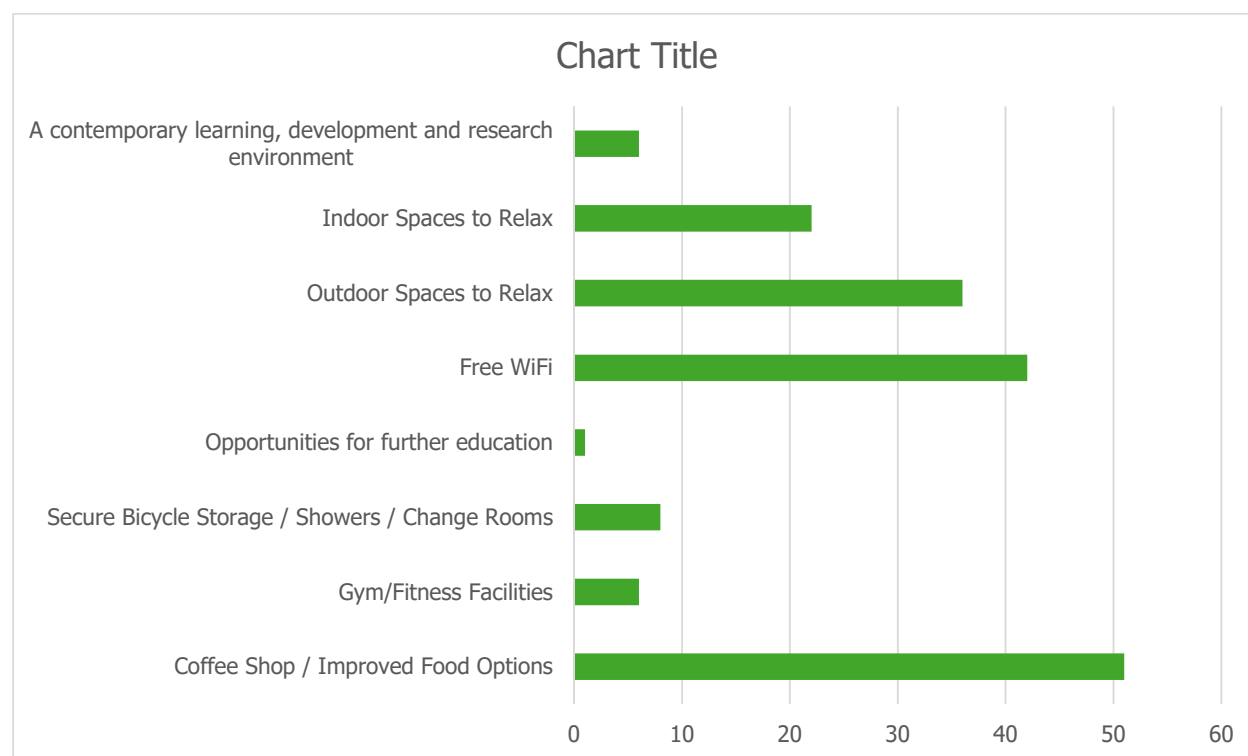
- » Aspirations expressed by staff included on-site childcare, with extended operating hours to accommodate varied shifts, and the changing shifts due to rosters.

3 Project Aspirations

Staff were asked to think about the hospital as a work place, rather than a clinical environment, and to provide ideas as to what could make the new Tweed Valley Hospital a good place to work.

A number of prompted questions were provided, with the responses outlined in Figure X, for those respondents that answered.

Figure 4 Project Aspirations



In addition to these, staff raised the following key aspirations for the new hospital in relation to staff amenity:

- » Sufficient public toilets. At present there are too few public toilets, and they are not well located.
- » Sufficient staff toilets. They should be separate from the shower facilities, and better located.
- » Staff toilets should be larger in size.
- » Outdoor and indoor relaxation spaces away from patients and visitors to allow for staff to retreat and relax during breaks.
- » Sufficient car parking.
- » Improved office / administration space including ergonomic work spaces.
- » Comfortable seating in cafeteria and relaxations spaces.



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