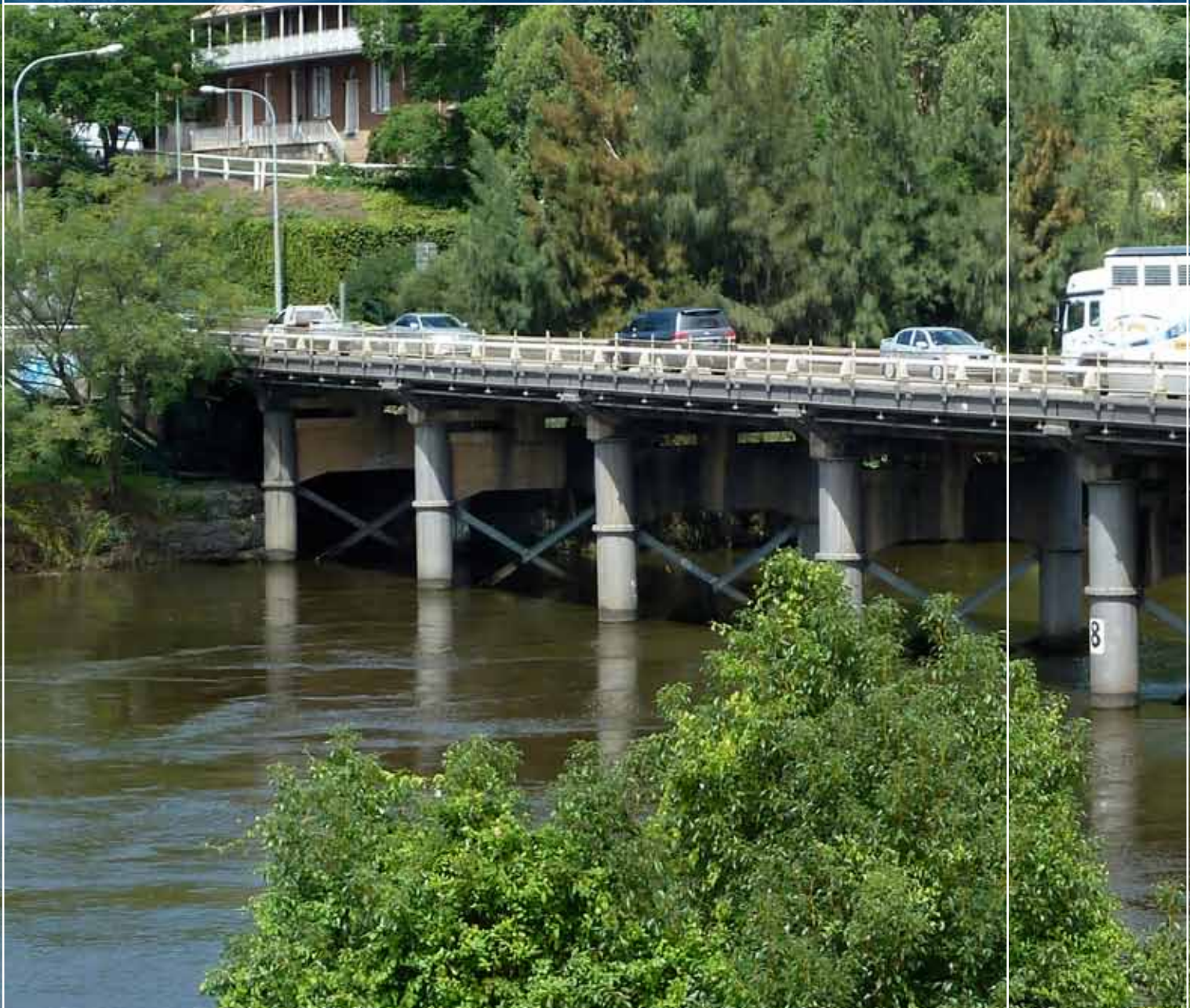




Transport
Roads & Traffic
Authority



Windsor Bridge over the Hawkesbury River

Socio-economic investigations

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Socio-economic Investigations

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1 Introduction

1.1 Background

In June 2008 the NSW Government announced it had committed \$25 million to replace Windsor Bridge. The Windsor Bridge is located in Windsor, within the Hawkesbury Local Government Area (LGA). The announcement followed investigations by the RTA into the condition of the existing bridge and the options for rehabilitation or replacement.

Windsor Bridge is the oldest existing crossing of the Hawkesbury River. The bridge is 143 metres long and 6.1 metres wide. It carries an average of 18,000 vehicles per day. While the existing structure is still considered safe for general traffic, parts of the bridge are now 134 years old.

Nine options were considered to rehabilitate or replace the existing bridge. Following community workshops and stakeholder consultation involving numerous government agencies two options were considered for further investigation. Option 1 and 6 are shown in Figure 1 and Figure 2 respectively.

Figure 1. Option 1



Figure 2. Option 6



1.2 Scope of work

SGS has been commissioned by the Roads and Traffic Authority (RTA) to conduct a Socio-economic investigation of option 1 and option 6 to replace the existing bridge.

The socio-economic investigation:

- Identifies the current role and functioning of Windsor town centre;
- Assesses the likely socio-economic benefits and potential negative impacts of the two options for bridge replacement on:
 - the local business community and,
 - the socio-economic environment;

The socio-economic investigation would be used to assist the RTA in making a decision about the preferred option. Once a decision regarding the preferred option is chosen, the project would then move to the concept design phase and environmental assessment including the socio-economic impacts of the preferred option.

2 Windsor town centre

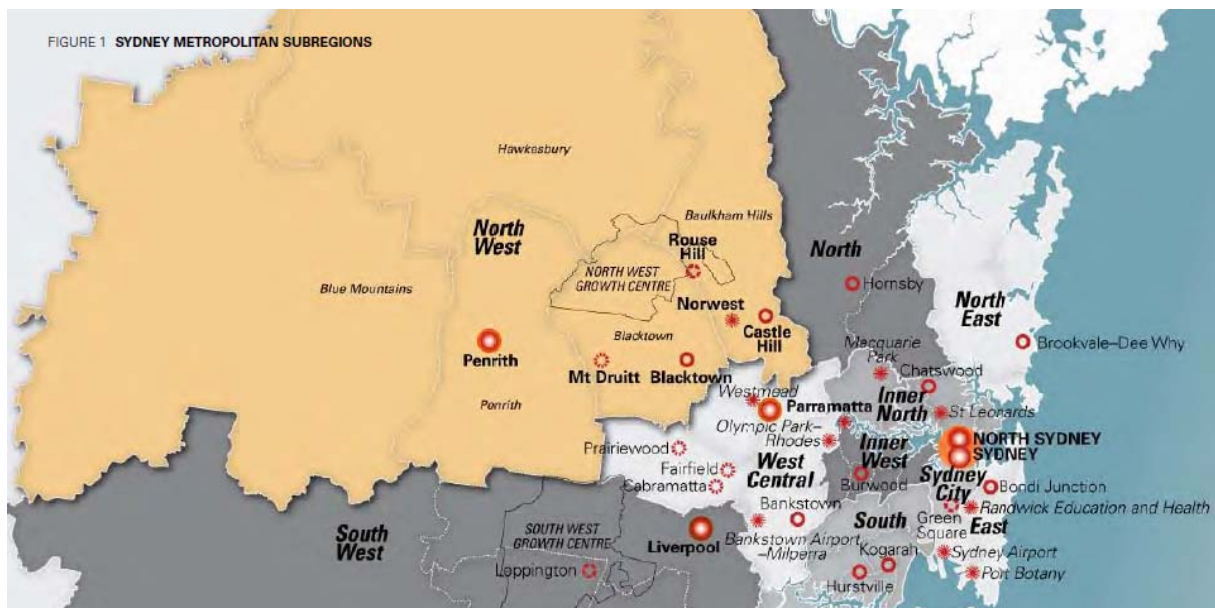
2.1 Policy context

Windsor is a town centre located in Hawkesbury Local Government Area (LGA), on the Hawkesbury River. The closest centres to Windsor include Richmond town centre and the villages of North Richmond, Wilberforce and Riverstone, within the Hawkesbury LGA and Blacktown LGA. Windsor town centre's employment is focused on local retail and service functions, and the policy framework for Windsor emphasises the need to maintain economic diversity.

Draft North West Subregional Strategy

The Metropolitan Strategy for Sydney Metropolitan Subregions ('City of Cities') was released in December 2005. The Strategy identified ten subregions as foci for more detailed future planning. One of these subregions was the North West Subregion, and the Windsor town centre is located within this subregion. The North West Draft Subregional Strategy was released in December 2007.

Figure 3. Subregional Map



Source: Department of Planning, North West Subregional Strategy, 2007.

The North West Subregion is expected to generate 130,000 new jobs and 140,000 new homes by 2031. The area would contain:

- One regional city – Penrith
- One specialised centre – Norwest
- Two major centres – Blacktown and Castle Hill
- One planned major centre – Rouse Hill
- One potential major centre – Mt Druitt

- Nine towns and 25 villages.

In the North West Draft Subregional Strategy Windsor is classified as a town centre. Other town centres in the North West include: Richmond, Katoomba, Baulkham Hills, Seven Hills, Stanhope Gardens, St Marys, North Rocks and Springwood. The closest town centres are Richmond to the north west and Stanhope Gardens to the south east. Windsor centre is of heritage significance being one of the five Macquarie towns. The others are Richmond, Pitt Town and Wilberforce, in Hawkesbury LGA and Castlereagh in Penrith LGA.

The closest existing major centres to Windsor are Blacktown and Castle Hill. However, the planned major centre of Rouse Hill and the potential major centre of Mt Druitt are located closer Windsor.

Windsor centre contains a small public and private hospital. Employment is focused around retail and service functions, with a number of takeaway food outlets and specialist food shops located within the centre. The Draft Subregional Strategy outlines Windsor's (and other town centres) important retail role in serving the surrounding catchments. While growth in Windsor is restricted due to flooding, the Draft Subregional Strategy notes potential to improve the physical, economic and culture environment of the centre.

Community Strategic Plan 2010-2030

Hawkesbury City Council adopted the Community Strategic Plan in October 2009. Themes and selected directions in the plan of relevance to the Socio-economic investigation include:

- Looking after people and place
 - (Ensure) population growth is matched with the provision of infrastructure and is sympathetic to the rural, environmental, heritage values and character of the Hawkesbury
 - Have an effective system of flood mitigation, fire and natural disaster management and community safety which protects life, property and infrastructure
- Caring for our environment
 - Be a place where we value, protect, and enhance the cultural and environmental character of Hawkesbury's towns, villages and rural landscapes
 - Look after our cultural and environmental assets for future generations so that they too can enjoy and benefit from a clean river and natural eco-systems, rural and cultural landscapes
- Linking the Hawkesbury
 - Have a comprehensive system of transport connections which link people and products across the Hawkesbury and with surrounding regions
 - Be linked by accessible, viable public transport, cycleways and pathways to the major growth and commercial centres within and beyond the Hawkesbury.
 - Have a comprehensive system of well maintained local and regional roads to serve the needs of the community

- Plan for, maintain and renew our physical infrastructure and community services, facilities and communication connections for the benefit of residents, visitors and businesses
- Supporting business and local jobs
 - Help create thriving town centres, each with its own character that attracts residents, visitors and businesses.

These objectives are consistent with the objectives for the bridge replacement project, namely in regards to: safety, traffic and transport efficiency; flood immunity; long term community needs; and impacts on heritage and character of the local area.

Hawkesbury Local Environmental Plan 1989 (HLEP 1989)

Local planning policy directs employment land use through the zoning and permissible and non-permissible uses and addressing State policy directions.

Windsor town centre is zoned 3(a) Business General in the HLEP 1989. The objectives of this zone are as follows:

- Promote the development and expansion of business activities to meet the optimum employment and social needs of the City of Hawkesbury
- Permit non-commercial development within the zones where such development is compatible with the commercial character of the locality
- Ensure that there is adequate provision for carparking facilities within the zone
- Minimise conflicts between pedestrians and vehicular movement systems within the zone
- Preserve the historic character of the City of Hawkesbury by protecting heritage items and by encouraging compatible development within and adjoining historic buildings and precincts.

The business zone is surrounded by the residential zones of Housing and Multi Unit Housing, and Special Uses "A" which includes the hospital.

Hawkesbury Employment Lands Strategy (2008)

The Hawkesbury Employment Lands Strategy prepared by SGS Economics and Planning in 2008 for Hawkesbury City Council provides a framework to support and enhance the Hawkesbury region's competitiveness. Windsor centre serves as Hawkesbury LGA's traditional retail main street centre, and contains 550 heritage items plus heritage conservation areas.

Based on the demand analysis undertaken by SGS, where industry sector growth was matched to business zoned land, there is no additional floorspace capacity in Windsor centre under the current planning controls. This indicates that the centre is performing well with few vacant properties. If greater demand in the 'Windsor catchment' was required then there would need to be additional floorspace capacity provided. The catchment area was not defined as detailed retail modelling was not within the scope of work.

2.2 Windsor socio-economic profile

A socio-economic profile of the study area (see Figure 4) likely to be affected by the bridge replacement was conducted as part of the current study. This profile sourced data from the 2006 ABS census and benchmarked the study area against Hawkesbury LGA and Sydney SD. Overall, the study area has a very similar profile to the whole of Hawkesbury LGA, and the important findings are summarised below. The detailed findings of the profile can be found in Attachment A.

In summary:

- The study area contains approximately one third (22,159 persons) of Hawkesbury LGA's population (60,562 persons)
- Around 40 per cent of the population is aged less than 25 years. This compares to 38 per cent in the Hawkesbury LGA and 33 per cent in Sydney SD
- The income profile in the study area is similar to the Hawkesbury LGA, and higher than the Sydney SD
- The study area has a higher share of technicians and trade workers, machinery operators and drivers and labourers, compared to Hawkesbury LGA and Sydney SD
- Major employers in the Study area are in the following industries:
 - Health care and social assistance, retail trade and public administration and safety. Given the location of the hospital in the study area, and the emphasis on local retail and other services, this finding is not surprising.
 - At a fine grain industry level, local specialisations are revealed in public order, safety and regulatory services, hospitals and 'medical and health care services.

2.3 Land use

An audit of land-use in the Windsor town centre was conducted in order to provide a description of existing commercial and retail activity. Each land use has been recorded at a 1 digit ANZSIC level¹. Figure 5 shows that the dominant land uses, in terms of floorspace, in the Windsor town centres are:

- Retail trade, including Windsor Riverview Shopping Centre (Coles), a Woolworths and speciality retail
- Cultural and recreational services
- Health and community services
- Personal and other services
- Property and business services

Figure 5. Floorspace by land use, Windsor Town Centre (1 digit ANZSIC)

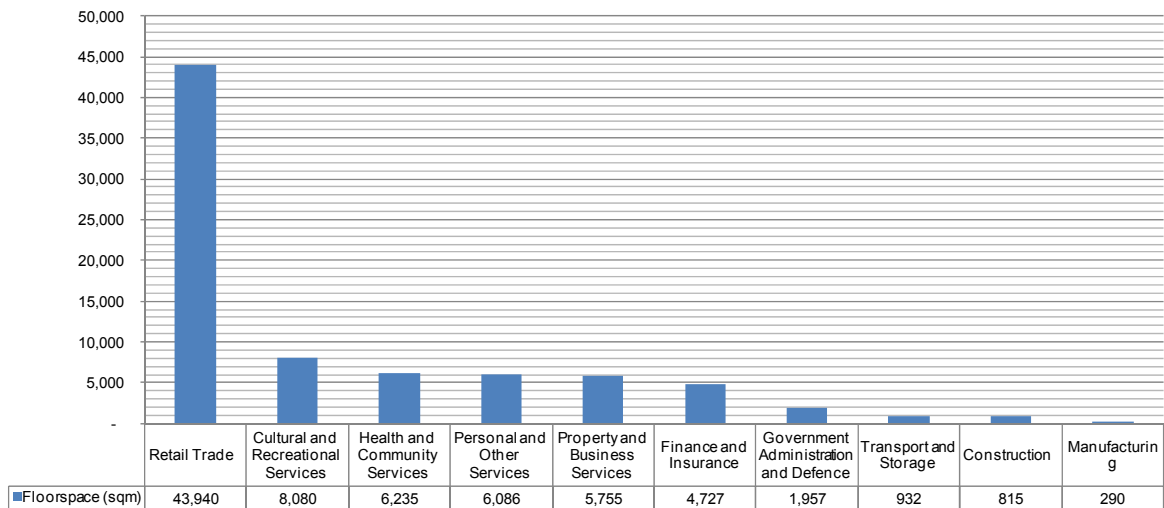
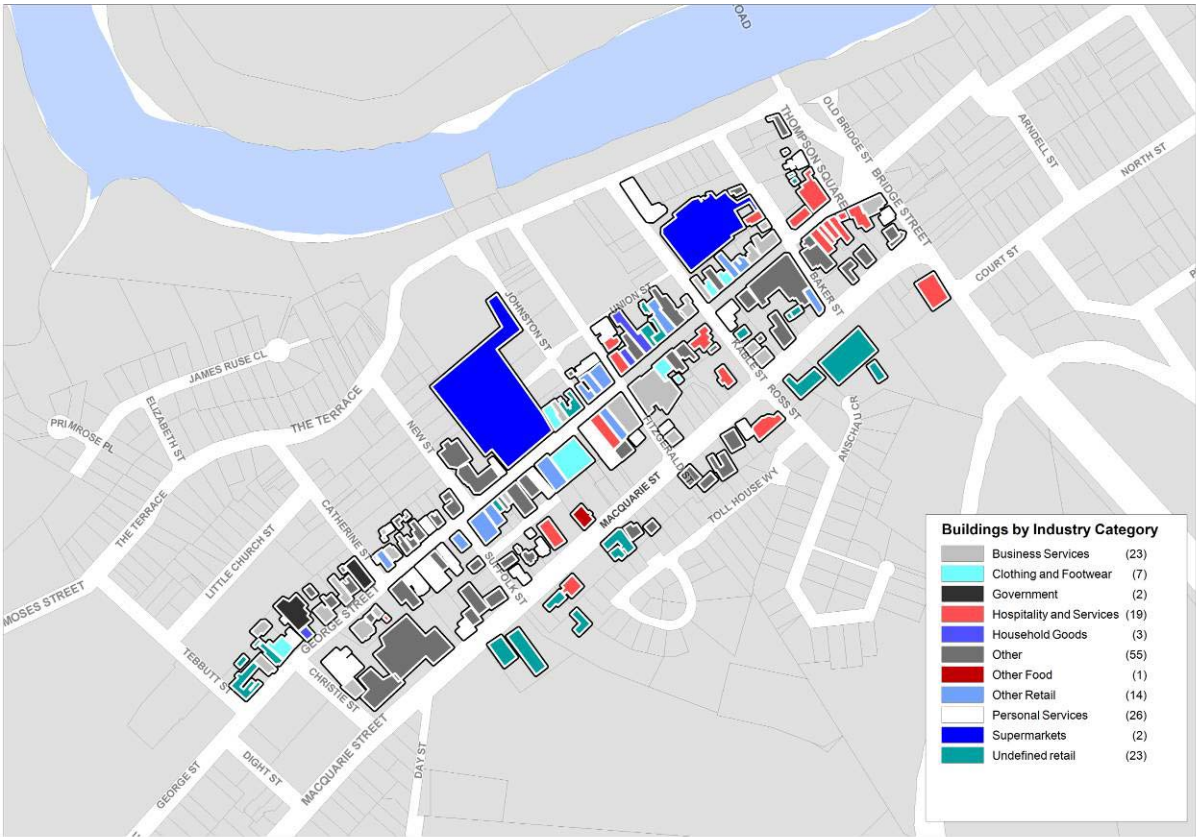


Figure 6 shows the spatial distribution of land uses in Windsor town centre. It shows that most retailing activity is concentrated in the east of the centre and along George Street. These businesses (particularly those east of the pedestrian mall) are likely to be most impacted by the bridge replacement project given their proximity to the existing bridge approach. The cluster of hospitality and service industries (in red) near the Thompson Square is also evident in the figure.

Figure 7 shows the location of on and off street parking and parking limits. There are a number of 2 hour off street car parking areas located near the supermarkets. On street parking is provided on most side streets and is mostly limited to 1 hour.

¹ Industry sectors are described using the Australian and New Zealand Standard Industrial Classification (ANZSIC) system. The ANZSIC has a structure comprising categories at four levels, namely Divisions (the broadest level – also known as 1-digit level), Subdivisions (also known as 2-digit level), Groups (also known as 3-digit level) and Classes (the finest level – also known as 4-digit level).

Figure 6. Spatial distribution of land uses in the Windsor town centre



2.4 Retail turnover in the town centre

The land-use data gathered in the audit can be translated into annual retail turnover using standard retail turnover densities (dollars of turnover per square metre of floorspace). Using this technique, annual retail turnover for Windsor town centre is estimated to be approximately \$186.9 million (\$2009). Annual retail turnover can be split into the categories as shown in Table 1.

Table 1. Estimated annual retail turnover, Windsor Town Centre

Retail Category	Estimated Annual Turnover (\$2009) (\$'000,000)
Supermarkets	\$ 79.6
Other Food	\$ 14.6
Clothing and Footwear	\$ 13.8
Hospitality and Services	\$ 24.7
Household Goods	\$ 9.6
Other Retail	\$ 44.8
Total	\$ 186.9

2.5 Survey of centre patrons and businesses

Purpose of the surveys

In addition to the socio-economic profile and the land audit, two surveys were conducted to investigate the socio-economic impacts that are likely to result as a consequence of replacing the Windsor Bridge. The first was a survey of businesses within the Windsor town centre and the second was a survey of patrons in the Windsor town centre.

Both of these surveys collected information regarding the current function of the Windsor town centre and provide some initial indication of how the two options for the bridge replacement might impact on this existing function. Specifically, information was sought regarding the portion of trade that may be attributed to passing traffic; customer origins and their travel patterns; the purpose of patrons' visit to the centre; and why Windsor town centre was chosen as a destination over other centres.

The surveys are appended Attachment C a detailed write up of the survey results can be found in Attachment B. A summary of survey results applicable to the socio-economic investigation is included below.

The business survey was conducted with 55 businesses within Windsor town centre and the patrons' survey included 254 respondents. Both sample sizes are considered to be statistically significant in the context of the number of businesses and patrons. Surveys were conducted from Thursday 11 December through to Saturday 13 December 2009 at various times throughout the day.

Passing traffic

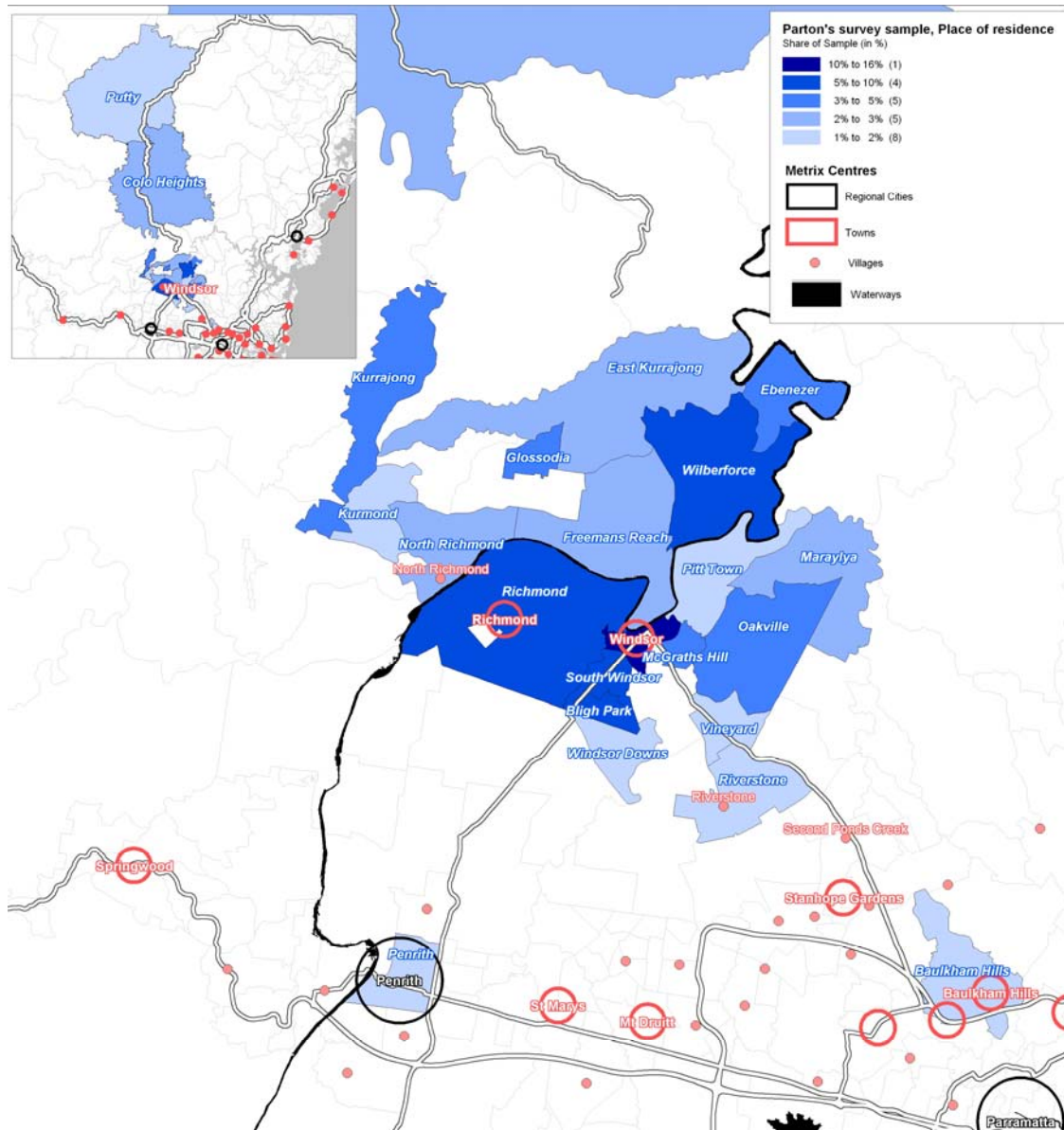
The business owners' survey indicates that around 80 per cent of their customers visit the Windsor town centre as their final destination. However, some 73 per cent of businesses consider they would be better off with more vehicle / passing traffic. These results imply that while passing trade per se is not important to business turnover, many business operators are of the opinion that an increase in the overall level of traffic may increase the turnover of their business.

The patrons' survey supported the findings of the business survey in that Windsor town centre is a planned destination for many patrons and that only a small proportion of trade is attributable to passing traffic. Around 84 per cent of patrons surveyed planned their visit to Windsor town centre in advance while the remaining 16 per cent stated their visit was spontaneous. Those who stated their visit was spontaneous largely visited the centre for the purpose of food, clothing and footwear retail.

A local catchment

The patrons' survey indicates that approximately 86 per cent of people visiting Windsor travelled from home. Figure 8 shows the place of residence of survey respondent. A large share of the patrons surveyed live in Windsor and the adjacent suburbs of South Windsor, Bligh Park and Richmond. The catchment then extends to the north east with a notably large share from Wilberforce.

Figure 8. Patrons' survey sample, place of residence (share of sample)



Around 40 of patrons indicated they choose to visit Windsor, as opposed to another location, because it is close to home. This was also the most common response from business when they were asked to nominate the reasons they believe customers choose to visit Windsor, as opposed to

another location. This supports the conclusion that the Windsor town centre serves a local catchment.

The second most common reason provided by patrons regarding why they chose to visit Windsor as opposed to another location, was for a particular product or service (18 per cent according to the patrons' survey and 33 per cent according to the businesses survey). Around half of the respondents who answered for a particular product/ service worked in the centre. Other particular product/ services responses included local real-estate agents, beauticians and car servicing.

It is reasonable to expect that these patrons are unlikely to change their destination even if the bridge replacement creates a bypass of the town centre, unless the particular service or product is available an alternative location which becomes relatively more accessible as a result of the bypass.

Character of the centre

Around half of businesses surveyed regard the character of the centre as a reason customers choose to visit Windsor, as opposed to another location. This compares to 9.2 per cent of patrons surveyed.

Both bridge replacement options are likely to have an impact on the Thompson Square area. Thompson Square contributes to the character of the centre. Under option 1, the impact on the character is likely to be negative as the new bridge approach would go through the park. Under option 6, there is likely to result in a benefit as passing traffic would be diverted away from Thompson Square.

Impact of traffic in the centre

The survey indicates that the impact of traffic on the patrons' enjoyment of the centre is currently minimal, with 59 per cent of people stating there is no impact. This was followed by 20 per cent of people preferring less traffic because it would be faster to get things done, 12 per cent because it would be easier to walk around, and 10 per cent because there would be less noise. Only 2 per cent of patrons would prefer more traffic.

The impact on turnover of more or less traffic in roam area 1 (see Figure 1 in Attachment B) is of particular interest as both option 1 and option 6 would result in less vehicle traffic on the George Street approach to the pedestrian mall². In this roam area, 20 per cent of business indicated there would be no impact on their turnover while 75 per cent indicated the felt turnover would be better with more traffic. This indicated that fewer vehicles on the George Street approach to the pedestrian mall may reduce turnover for some of the businesses located in this area. However, the survey did not ask whether the impact is due to vehicles passing in the vicinity of the shop. Indeed, a reduction in traffic in this area may encourage more pedestrian activity, which might boost turnover.

² Roam areas are the physical space within which interviewers surveyed centre patrons. There were three roam areas for this study.

The impact on turnover of more or less traffic in other areas is not as relevant as neither of the options significantly affect traffic in these areas.

Frequency of visits

The patrons survey confirmed around 70 per cent of customers who visit the centre several times a week (by car) expressed that if it took an additional 10 minutes³ to reach Windsor they would be just as likely to visit the centre just as often. Approximately 30 per cent considered that they would travel less frequently to the centre – typically changing from visits several times a week to weekly visits. Patrons who would reduce the frequency of their visit were visiting the centre on the day surveyed for the purpose of food, clothing and footwear retail.

Mode of transport

Both the business and patrons surveys indicated that most customers/ patrons rely on private vehicle transport to access the centre. This highlights the importance of car parking. However, neither of the new bridge options involves significant changes to the existing car parking arrangements.

³ The estimate of 10 minutes additional travel time was advised by the RTA when the survey was designed. It represents a worst case scenario.

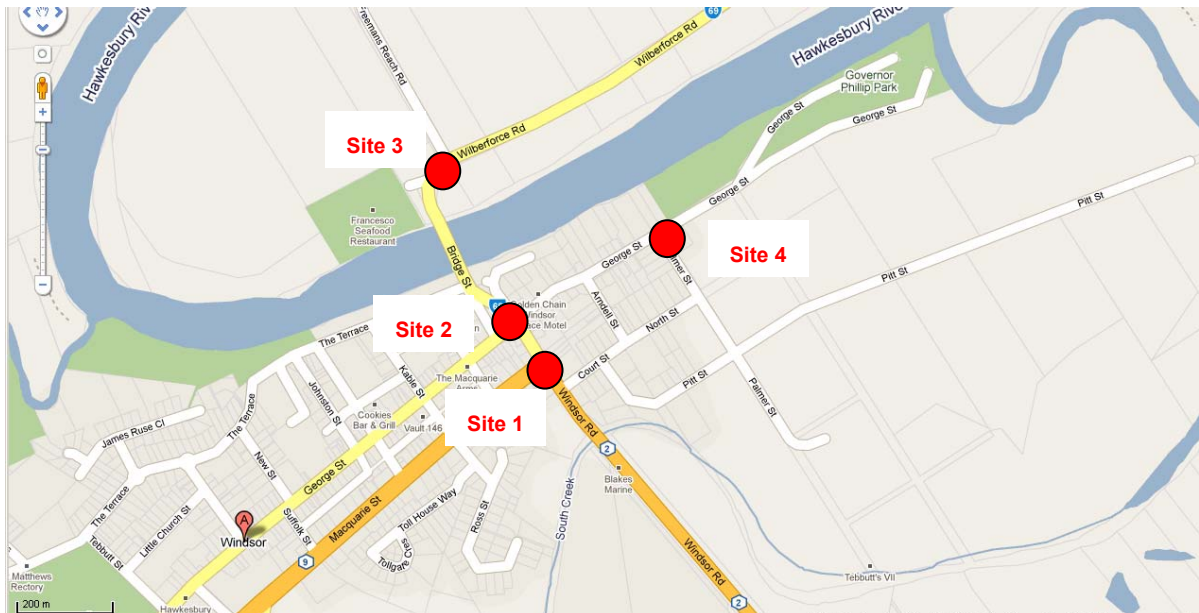
2.6 Pedestrian Survey

A survey of pedestrian and cyclist activity around the subject area was conducted in late 2009 by Skyhigh Data Australia Pty Ltd. Data was collected at four sites:

- Site 1: Bridge and Macquarie Streets
- Site 2: Bridge and George Streets
- Site 3: Bridge Street and Wilberforce Road
- Site 4: Palmer and George Street

A summary of the results is provided in Table 2. They show that there are heavy pedestrian flows at both site 1 and site 2. Option 1 passes directly through both of these sites and would provide a signalised pedestrian crossing across George Street and Bridge Street. This is likely to improve safety and accessibility to the town centre for the existing pedestrians.

Figure 9. Data collection sites



Source: Google Maps and SGS (2010)

There is very little pedestrian activity at site 3. This indicates that very few pedestrians use the existing river crossing. There is also little pedestrian activity at site 4. Option 6 would pass near this site.

Table 2. Summary of Pedestrian Survey Results

		Wed 25 Nov	Thur 26 Nov	Sat 28 Nov	Sun 29 Nov
Site 1	AM	111	48	50	61
	PM	111	71	37	66
Site 2	AM	110	72	210	163
	PM	310	169	326	169
Site 3	AM	2	6	3	2
	PM	2	5	4	5
Site 4	AM	18	31	6	32
	PM	1	19	9	37

Source: Skyhigh 2009, summary by SGS 2010

Note: These numbers also include cyclists but they represent only a very small share.

3 Socio-economic considerations

This section presents the likely socio-economic impacts of the two shortlisted options. The socio-economic impacts are considered for both the construction phase of the project and the operational phase of the project. This involves the identification of the contribution of the project to regional output and employment and the effects on the local socio-economic environment. All dollar figures are 2009 dollars.

3.1 Construction phase

Pedestrian and cyclist connections

There are likely to be disruptions to existing pedestrian and cyclist connections during the construction period under option 1. There would be minimal impact to existing pedestrian and cyclist connections during the construction period under option 6.

Recreation

There is potential that the park at Thompson Square would be unusable or unattractive to visitors throughout the 12 month construction period under option 1. Similarly, there would be some disruption to Governor Phillip Park during the construction period under option 6.

Business and shopping environments

Car parking

Under option 1, construction workers are likely to require parking on or near the construction site which would reduce the availability of parking for existing centre patrons. Under option 6 there may be some impact on parking during the construction period if workers frequent the town centre though the impact would be less than under option 1.

Travel costs

Under option 1, there are likely to be delays in accessing the town centre due to detours required to enable construction work along the approach to the existing bridge. Under option 6, impact on travel costs associated with access the town centre during the construction period would be negligible.

Property acquisitions

Property acquisitions would be required for both options. Under option 1 these will include strip acquisitions along the proposed route. Under option 6 these will include strip acquisition of part of the turf farm on the northern side of the river, of Governor Phillip Park and segments of some residential properties along Palmer Street.

Economy and employment

The maximisation of contributions to gross regional product⁴ and employment are dealt with in this section of this report.

Expenditure on bridge construction and associated project development, design and management is an economic stimulus. It stimulates further spend in the economy. For example the building works would require purchases of materials from suppliers, who in turn would spend a portion of this income on purchasing inputs, paying salaries etc. The construction workers would also spend a portion of their wages on the regional economy e.g. food, living expenses etc.

The objective of the socio-economic investigation is to measure additional expenditure, value added and employment generated as a result of the initial stimulus, i.e. to measure the 'flow-on effects'⁵ in terms of output and employment. The economic assessment uses an input-output model for the Sydney Statistical Division.

The RTA provided estimated project expenditure for each of the options has been provided to SGS by the RTA. For option 1, project expenditure is estimated to be \$44.5 million (excluding land acquisition). For option 6, project expenditure is estimated to be \$79.5 million (excluding land acquisition).

These estimates include expenditure which can be classified into the following industries:

- Construction
- Finance and insurance
- Government administration
- Property and business services

Under option 1, the total output generated in the Sydney economy as a result of project expenditure is \$117.9 million. Under option 6 the total output generated in the Sydney economy as a result of project expenditure is \$210.9 million.

The total number of jobs created in the Sydney economy as a result of the projects is 516 jobs for option 1 and 924 jobs for option 6.

The breakdown of the expenditure and multiplier impacts is shown in the following Table 3 and Table 4.

Data from the 2006 ABS Census shows that the Hawkesbury LGA, particularly the study area surrounding the Windsor Bridge, has a higher share of residents with occupations which would be required for bridge construction. These occupations include 'technicians and trade workers', 'machinery operators and drivers' and 'labourers'. Thus, both options could provide jobs for local

⁴ Gross regional product is a measure of the size of a region's economy

⁵ It is important to note that the flow-on contribution may not be realised immediately and refers to the generation of output, value added or employment in years to come. However, it is expected that it would primarily be realised in the earlier years and diminish after that.

workers. The availability of a local workforce may reduce pressure to house construction workers in the local area during the construction phase of the project.

Based on the estimates of construction costs, option 6 would provide more job opportunities for local construction workers.

Table 3. Impact of project expenditure, option 1

Industry	Initial Spending/Investment	Total output generated in Sydney SD	Total number of jobs generated in Sydney SD
Construction	\$35,607,120	\$95,093,207	410
Finance and insurance	\$203,675	\$481,219	2
Government administration	\$419,263	\$1,094,011	6
Property and business services	\$8,237,959	\$21,258,126	98
Total	\$44,468,017	\$117,926,564	516

Table 4. Impact of project expenditure, option 6

Industry	Initial Spending/Investment	Total output generated in Sydney SD	Total number of jobs generated in Sydney SD
Construction	\$63,469,254	\$169,502,474	731
Finance and insurance	\$364,067	\$860,175	3
Government administration	\$765,978	\$1,998,718	11
Property and business services	\$14,917,585	\$38,494,960	178
Total	\$79,516,884	\$210,856,327	924

3.2 Operational phase

The section looks at how the two shortlisted options address the project objective of 'minimising business disruptions / maximising opportunities'.

Quantifiable impact

For the purpose of this study it is assumed that option 6 would require an additional 10 minutes to reach the Windsor town centre. A 10 minute journey is the worst possible case and it is expected that the actual journey would be significantly less than 10 minutes. The impact of 10 minutes additional travel time to reach the centre was tested as part of the patrons' survey. Patrons were asked whether the frequency of their visit would change as a result of 10 minutes addition travel time.

The survey found that of people who travel by car to Windsor several times a week, 72 per cent would continue to travel to Windsor as often if it took an additional 10 minutes to reach the centre. For those people who travel weekly and fortnightly, 59 per cent respectively, would continue to travel as frequently if travel times were increased. The magnitude of this impact is likely to be on the high side as the additional travel time is likely to be less than 10 minutes and would only affect traffic going one direction.

Additionally, although patrons may visit the centre less frequently, they do not necessarily take their expenditure elsewhere. Both the business and patrons surveys indicate that most customers/patrons travel to Windsor town centre by car. The patrons' survey also indicates that most patrons travel to Windsor from their home. Thus, it is important to look at what other centres might be an accessible travel distance by car from their home and whether these would be likely to draw expenditure away from Windsor town centre.

Figure 8, earlier in this report, shows the place of residence of survey respondents. It also shows the surrounding villages (small red dots) and town centres as determined in the Draft North West Subregional Strategy (discussed in section 2.1). There are very few villages or town centres within the areas patrons live which indicates there are few intervening opportunities.

The exceptions are Richmond town centre and North Richmond village centre. However, of the 44 patrons who responded that they would visit the centre less frequently as a result of the bypass, only six were from Richmond and North Richmond. Four of the six indicated that they visited Windsor on the survey day for a particular product/service and nominated a specific store. The particular product/services included real estate agent/s, a fancy dress store and an electronics store. That is, those patrons who choose to shop in Windsor for a particular product/service, are not affected by changes in the accessibility to the centre.

Given the lack of intervening opportunities elsewhere is likely the impact on business turnover as a result of the bypass in option 6 would be negligible.

Non-quantifiable impact

There are other impacts on business which cannot be so easily quantified, particularly from changes in the character of the centre. The patrons' survey indicated that 9 per cent of patrons consider the character of the centre as a reason to visit Windsor over another centre. Option 1 is likely to adversely impact on the character of the centre as the new bridge approach in option 1 would cut through part of Thompson Square. Where the current road descends in to a cutting as it passes through the square, the new approach would be at a similar elevation as Thompson Square. The road and vehicles would be visible from the reserve and more relevantly in the current context, the businesses providing outdoor dining facilities overlooking Thompson Square and down to the river.

In contrast, option 6 would reduce vehicle traffic passing Thompson Square by around 1,200 vehicles (traffic model estimate) each morning and again in evening. The reduction in passing traffic could support an increase in turnover for businesses around the square.

Similarly, the reduction in vehicle traffic along the George Street approach to the pedestrian mall could make this area more attractive to pedestrians. This may result in improved business turnover in this area as it becomes more attractive to pedestrians. Although most patrons said that there is no impact of traffic on their enjoyment of the centre, 20 per cent said they would prefer less traffic because it would be faster to get things done, 12 per cent would prefer less traffic because it would be easier to walk around, and 10 per cent would prefer less traffic because there would be less noise.

From a business perspective, more vehicle traffic is favoured in this area. This indicated that fewer vehicles on the George Street approach to the pedestrian mall may reduce turnover for some of the businesses located in this area. However, the question does not ask whether the impact is due to vehicles passing in the vicinity of the shop. Indeed, the reduction in traffic in this area, under both options may encourage more pedestrian activity which might boost turnover.

There may also be an impact on business turnover if the impacts associated with option 6 regarding recreational activities on the Hawkesbury River are realised. It is likely that participants and spectators of these events spend money in the Windsor Town Centre. Thus, if the number of participants and spectators is reduced, there would likely be a reduction in business turnover.

Pedestrian and cyclist connections

The intersections along Bridge Street are heavily frequented by pedestrians. Both options would assist the movement of pedestrians in this area. Option 1 would provide a signalised crossing and option 6 would reduce vehicle traffic, making it easier for pedestrians to cross.

Pedestrians and cyclists would also benefit from a more direct route across the river to Macquarie Park under option 1. However, option 6 removes the existing direct access from the town centre to the northern side of the river. Instead, pedestrian and bicycle access across the river would be allowed via the new bridge in option 6.

The results of the patrons' survey indicate that around 7 per cent of patrons travel to the centre by foot and around 1 per cent by means other than car, bus or by foot. Only two respondents to the survey indicated that the additional time taken to access the centre by foot would impact on their frequency of patronage. The results of the pedestrian activity survey also indicate that the existing bridge crossing is not used frequently by pedestrians or cyclists and therefore the significance of the impact is low.

Recreation

There are two keys recreational spaces which would be affected by the bridge replacement options: Thompson Square and the area of the river near Governor Phillip Park Reserve (and Governor Phillip Park itself).

Thompson Square, near the town centre, is a popular picnic spot for the community and tourists and is visible from numerous businesses, particularly those with outdoor dining facilities. Regular music events are also held in the Park⁶.

In both options, the existing Bridge Street road cutting would be backfilled and landscaped. However, the new bridge approach in option 1 would require some acquisition of Thompson Square. The new approach would be at a similar elevation as Thompson Square and therefore the road and vehicles would be visible from the reserve which may impact on patrons' enjoyment of this space.

Option 6 would reduce vehicle traffic passing through Thompson Square which could enhance patrons' enjoyment of the space.

Governor Phillip Park is on the southern side of river, near the beginning of the new bridge in option 6. There are many boating activities which use this park and the nearby river. The Power Boat Club meets every month all year round. The Bridge to Bridge power boat race, Bridge to Bridge Ski Classic and Windsor Spectacular are held annually. The Bridge to Bridge race attracts 2000-3000 visitors to Windsor, and the Windsor Spectacular attracts 3000-4000 visitors. The Hawkesbury Power Boat Club meets monthly for 'test and tunes' and scrutineering, and also hosts a monthly club race day. The 'test and tune' days can attract between 3 to 20 boats, and the club race days can attract between 20 to 50 boats⁷. The turnout is largely dependent on the weather. The club has around 200 members. Additionally, the Bridge to Bridge Water Ski Classic, held annually in November, can attract up to 4000-5000 people, depending largely on the weather⁸. Most of these spectators gather at the finishing line at Windsor.

NSW Maritime have written to the RTA advising that option 6 would pose significant disruption to licence aquatic boating activities, such as the above, due to shadowing of the course. They also

⁶ Hawkesbury City Council (2010), Personal Communications with land management officer

⁷ Upper Hawkesbury Power Boat Club (2010, Personal Communications with Secretary

⁸ NSW Water Ski Federation Ltd (2010) <http://www.waterskinsw.com.au/>

raised the possibility that option 6 may restrict the passage of larger commercial vessels to their permanent moorings established adjacent to the public wharf at Windsor.

Additionally, option 6 would encroach on the western end of Governor Phillip Park. Option 6 would also require strip acquisition of the original land allocation for the park which continues south of Gorge Street. This section of the park is not currently in use by the public so the impact would be low.

In both options, removal of the existing bridge would increase navigation clearance and give an increased opportunity of water traffic to utilise the waters upstream of Windsor. This includes an opportunity for the Hawkesbury Paddle Wheeler to travel upstream.

In option 1, vehicle and pedestrian access under the new bridge would improve access to Windsor Wharf along The Terrace. Option 6 would improve access to Governor Phillip Park and the four-lane boat ramp by providing a more direct route along the new bridge approach capable of carrying larger and longer vehicles.

Other impacts associated with recreational space are as follows:

- Option 6 would improve access to Tebutt's Observatory (tourist and function centre) including a dedicated right in - left out turn lanes for access to the property.
- Option 1 would improve access to Macquarie Park on the northern side of the river. The Hawkesbury Canoe Classic which is held annually in October, starts from Macquarie Park, and attracts 400-500 paddlers, plus an additional 500 land crew, for the moonlight race⁹. Other activities that occur in Macquarie Park include car and bike club gatherings and Sorry Day celebrations¹⁰.

⁹ Hawkesbury Canoe Classic Association Inc (2010), <http://www.canoeclassic.asn.au>.

¹⁰ Hawkesbury City Council (2010), Personal Communications with land management officer

4 Socio-economic conclusions

Given all preceding comments and investigations, it is clear that the Windsor town centre predominantly serves a local population. The proximity of the centre to patrons' homes is the principal driver of visitation. The character of the centre was also an attractor for a smaller proportion of people.

The current alignment of the bridge feeds directly into the Windsor town centre, and one of the options under review (option 1), seeks to maintain this connection, albeit with different access points. Option 1 does however, impact on a historical square, Thompson Square, but this impact on the centre's character is localised.

The other option under investigation (option 6) proposes a change to the bridge corridor alignment, and effectively creates a bypass of the town centre.

The main benefits associated with option 1 include:

- A more direct route across the river for pedestrians and cyclists compared with option 6
- Improved movement of pedestrians at the intersection of Bridge Street and George Street via a signalised crossing
- The generation of around 500 jobs in the Sydney economy and around \$120 million in total output for the Sydney economy. A number of these jobs associated with the physical construction of the bridge could provide employment for local workers.

The main benefits associated with option 6 include:

- Removal of traffic passing through Thompson Square
- Reduction in traffic at the intersection of Bridge Street and George Street, benefiting pedestrians
- The generation of around 900 jobs in the Sydney economy and around \$210 million in total output for the Sydney economy. A number of these jobs associated with the physical construction of the bridge could provide employment for local workers.

The main potential negatives from option 1 include:

- Increase in travel costs associated with accessing the town centre during construction
- Impact on recreational spaces and social infrastructure (namely Thompson Square) during construction and operation
- Impacts on amenity of the business near Thompson Square, particularly from visual impacts of the bridge and road approaches.

The main potential negatives from option 6 include:

- Greater value of property acquisition, compared to option 1
- Additional travel costs associated with the town centre during operation
- Impacts on boating on the river during operation.

The impact on trade in Windsor town centre as a result of the bypass under option 6 was tested but found to be negligible.

5 References

Australian Bureau of Statistics (2007), 2006 Census Basic Community Profiles

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SGS Economics and Planning (2008), Hawkesbury Employment Lands Strategy

Skyhigh Data Australia Pty Ltd (2000), Windsor Pedestrian Survey

Upper Hawkesbury Power Boat Club (2010, Personal Communications with Secretary

Attachment A: Socio-economic profile

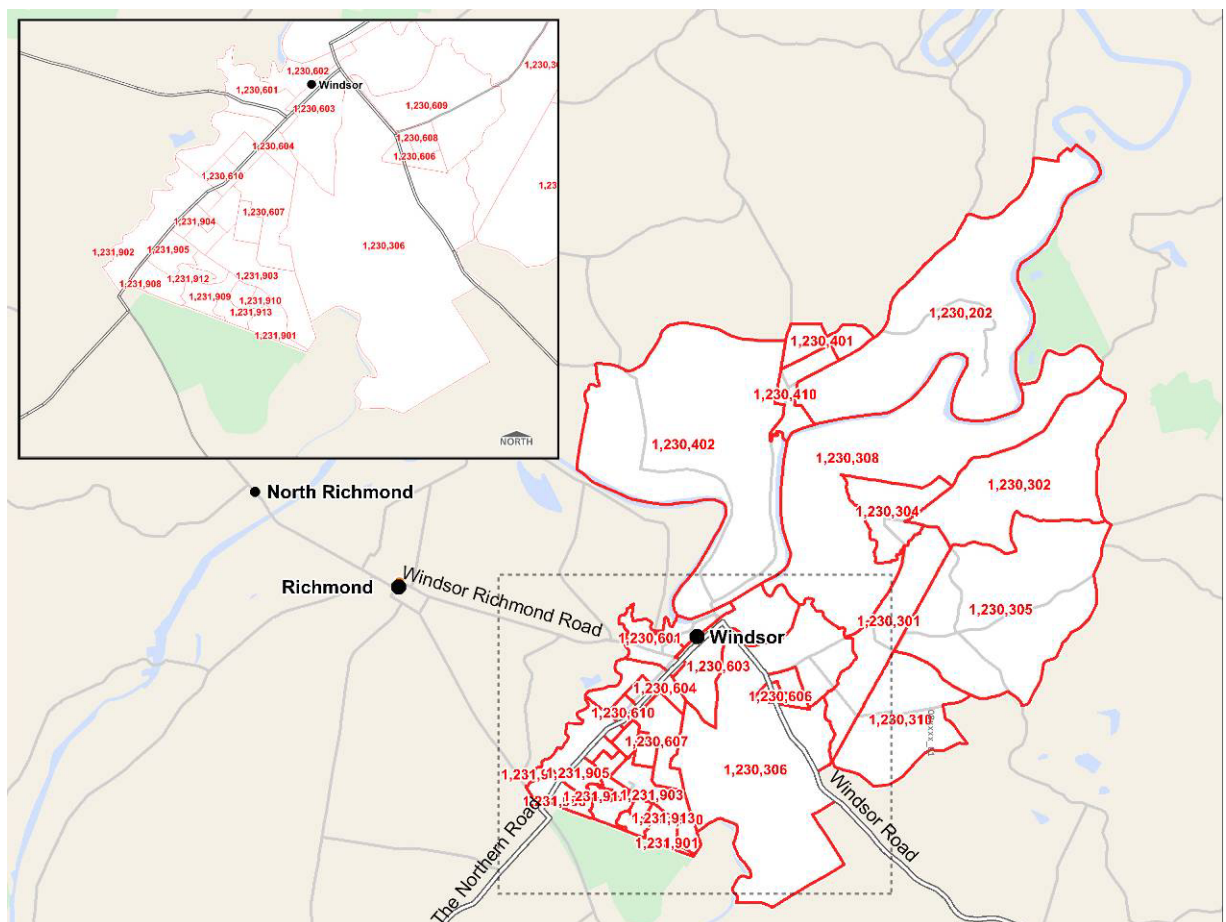
This socio-economic profile uses data from the 2006 ABS census and shows Windsor centre's context within Hawkesbury LGA and the wider region. A study area has been identified and this is benchmarked against Hawkesbury LGA and Sydney SD. Overall, the study area has a very similar profile to the whole of Hawkesbury LGA.

The data presented in this section includes key socio-economic indicators relating to population, age, household income and family composition. It also examines local industry data through the use of Transport Data Centre (TDC) Journey to Work (JTW) data to analyse location quotient (LQ).

Population

The study area (as defined by the ABS Census Collection Districts shown in Figure 1) had a population of 22,159 in 2006 which equals 36.6 per cent of Hawkesbury LGA's total population of 60,562.

Figure 1. Study Area Collection Districts



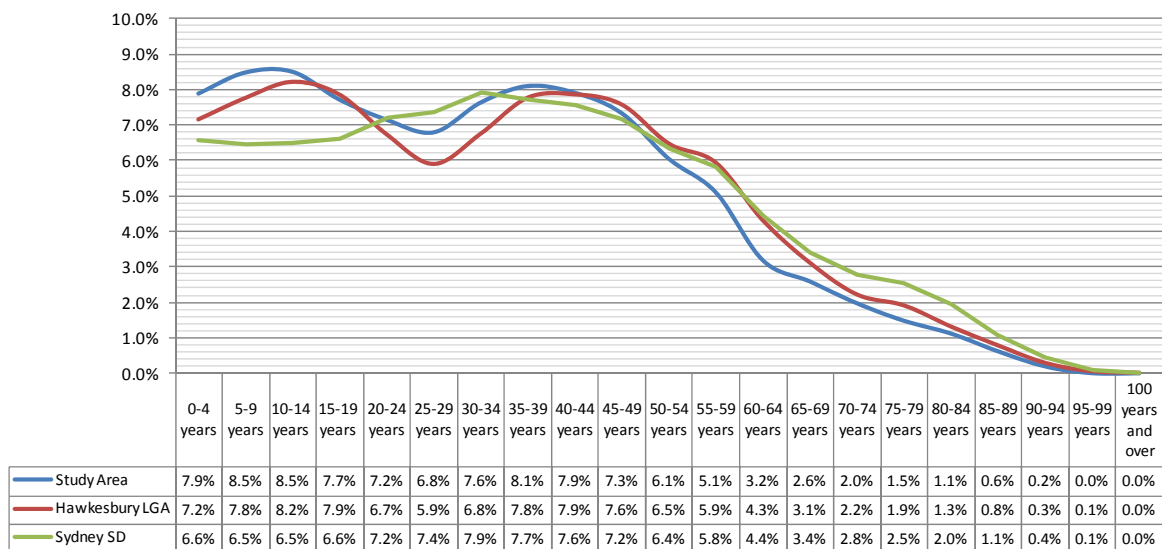
Age Profile

Figure 2 shows the age profile in 2006 of the study area, Hawkesbury LGA and Sydney SD. It shows that the study area has a high proportion of people aged between 0-4 (7.9 per cent) and 5-9 (8.5 per cent). This is compared to both Hawkesbury LGA with 7.2 per cent and 7.8 per cent, and Sydney SD with 6.6 per cent and 6.5 per cent for the same age categories respectively.

The study area follows a much similar trend to Hawkesbury LGA although it has a notably higher proportion of people aged between 20-24, 25-29 and 30-34. The study area's share of these age groups is however lower than Sydney SD.

The study area has a significantly low proportion of people aged 55-69 compared to both Hawkesbury LGA and Sydney SD. The study area also has a lower proportion of people in all categories of people aged over 75 years.

Figure 2. Age Profile, 2006



Source: ABS, 2006 Basic Community Profile

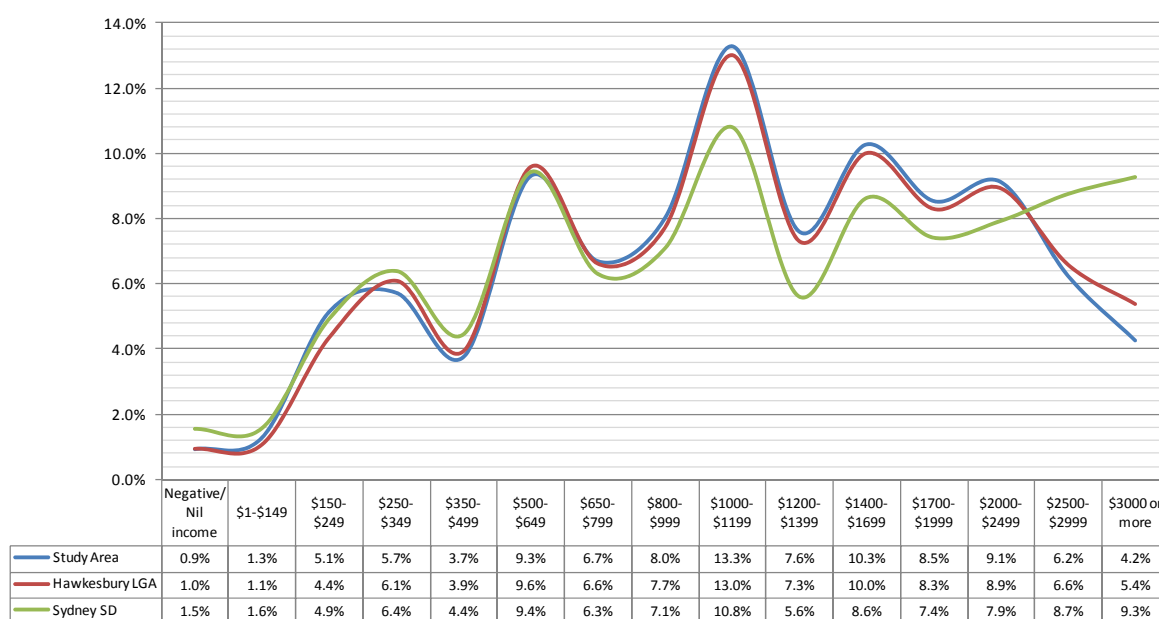
Household Income

Figure 3 shows the weekly household income for the study area benchmarked against Hawkesbury LGA and Sydney SD. The study area follows a very similar trend pattern to the Hawkesbury LGA. However, the study area has a slightly higher proportion of households earning between \$150 and \$249 (5.1 per cent) compared to Hawkesbury LGA (4.4 per cent) and Sydney SD (4.9 per cent).

The study area also has a higher proportion of households earning between \$800 and \$2499. The study area has 10.3 per cent and 8.5 per cent of households who earn between \$1400 and \$1699 and between \$1700 and \$1999 respectively. This is significantly higher than Hawkesbury LGA (with 10.0 per cent and 8.3 per cent respectively) and Sydney SD (8.6 per cent and 7.4 per cent respectively).

The study area has a considerably lower proportion of households who earn between \$2500 and \$2999 (6.2 per cent) and over \$3000 (4.2 per cent) per week. This is compared to the Hawkesbury LGA (with 6.6 per cent and 5.4 per cent respectively) and Sydney SD (with 8.7 per cent and 9.3 per cent respectively).

Figure 3. Weekly household income, 2006



Source: ABS, 2006 Basic Community Profile

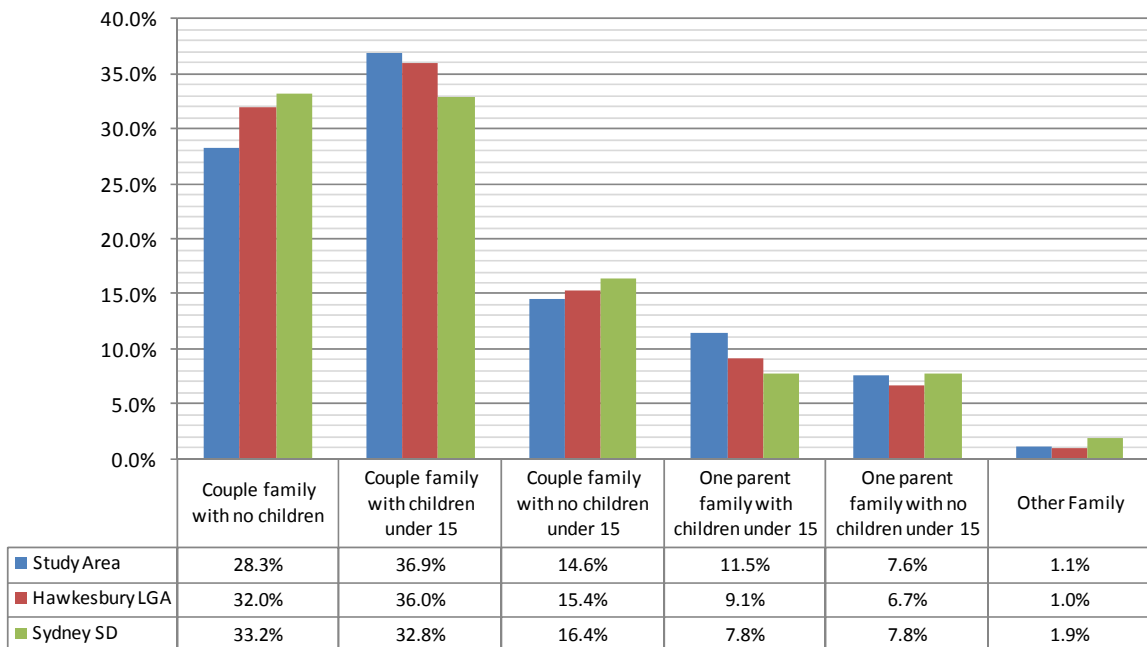
*'not stated' and 'partial income' are not included in this figure

Family Composition

Figure 4 shows the family composition of the study area compared to Hawkesbury LGA and Sydney SD in 2006. It indicates that the study area has a higher proportion couple families with children under 15 (36.9 per cent) compared to Hawkesbury LGA (36 per cent) and Sydney SD (32.8 per cent). The study area also has a higher proportion of one parent families with children under 15, compared to both Hawkesbury LGA and Sydney SD.

The study area has a lower proportion of couple families with no children (28.3 per cent) and couple families with no children under 15 (14.6 per cent) compared to the Hawkesbury LGA (with 32 per cent and 15.4 per cent respectively) and Sydney SD (with 33.2 per cent and 16.4 per cent respectively). The study area and Hawkesbury LGA have approximately 1.0 per cent less 'Other Families' than Sydney SD.

Figure 4. Family Composition, 2006

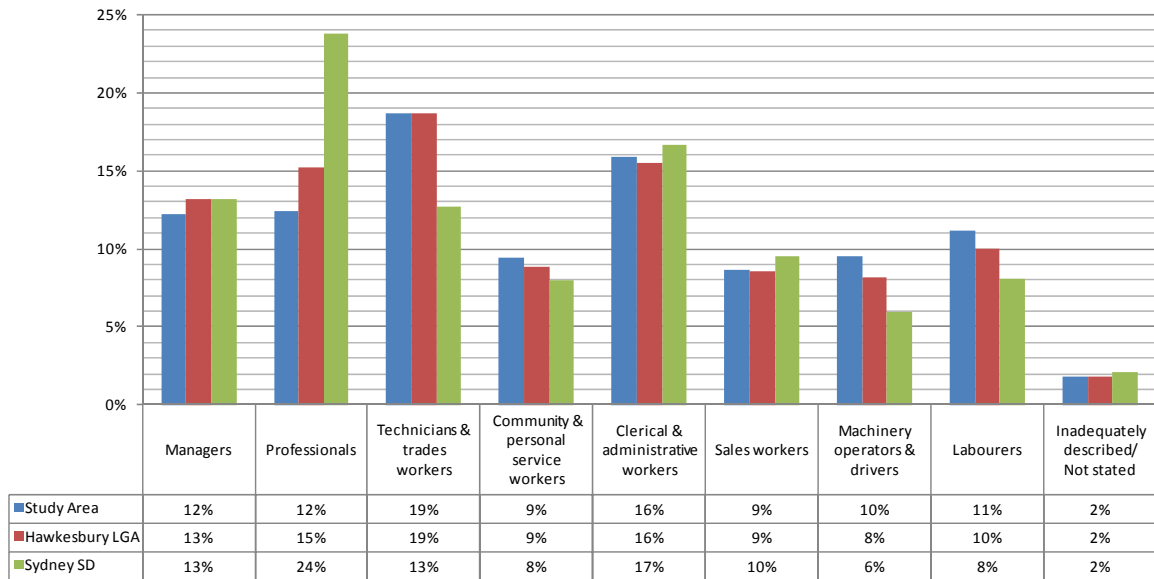


Source: ABS, 2006 Basic Community Profile

Occupation

The Hawkesbury LGA, the study area in particular, has a higher share of residents with occupations which would be required for bridge construction compared to Sydney SD. These occupations include 'technicians and trade workers', 'machinery operators and drivers' and 'labourers'. The occupation profile is shown in Figure 5.

Figure 5. Occupation, 2006



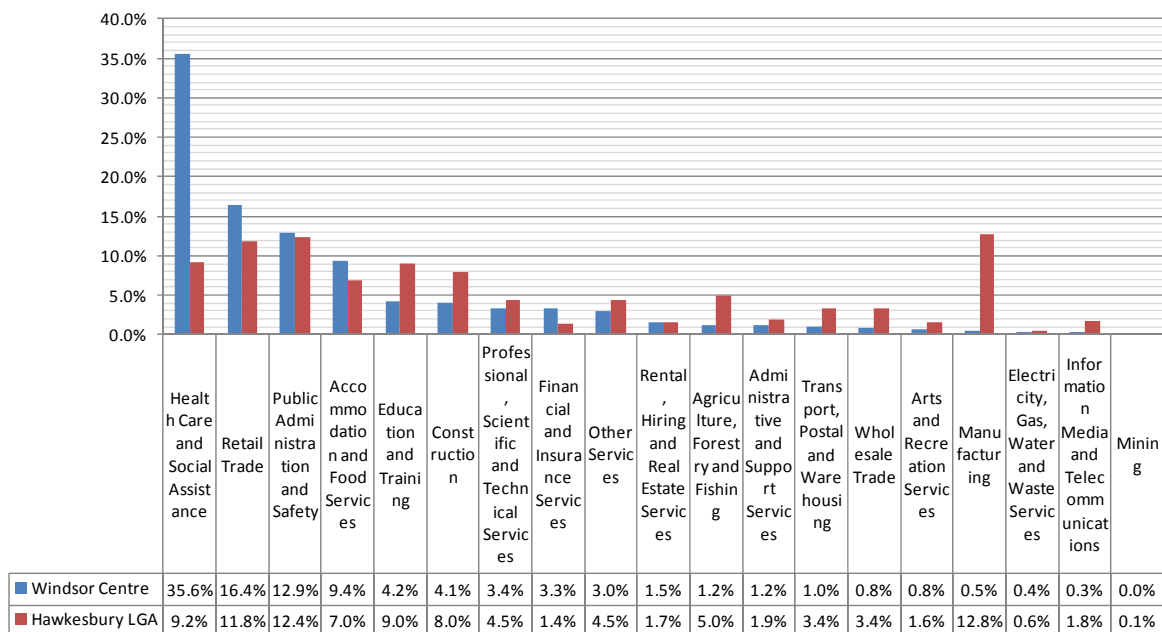
Source: ABS, 2006 Basic Community Profile

Local Industry

Figure 6 shows 1 digit ABS Journey to Work employment by industry data¹¹ for Windsor Centre and Hawkesbury LGA. It shows that Windsor Centre has a high proportion of jobs in the 'Health Care and Social Assistance' industry (35.6 per cent) compared to Hawkesbury LGA (9.2 per cent).

The study area also has a greater proportion of jobs in the 'Retail Trade' (16.4 per cent) and 'Public Administration and Safety' (12.9 per cent) industries compared to Hawkesbury LGA with 11.8 per cent and 12.4 per cent respectively. However, the study area has a lower proportion of jobs in the 'Education and Training', 'Construction' and 'Professional, Scientific and Technical Service' industries than the Hawkesbury LGA.

¹¹ Refers to the number of jobs by employment by industry.

Figure 6. Employment by Industry, Windsor Centre and Hawkesbury LGA, 2006

Source: ABS, 2006

Location quotient analysis

The capacity of a region to provide more goods and services than required, and to then export the products of these industries to other regions is known as industry specialisation and can be illustrated by Location Quotient Analysis (LQ). This involves dividing the share of jobs in an industry with the study region (in this case both Windsor Centre (TZ) and Hawkesbury LGA) by the share of that industry in a benchmark region (both Hawkesbury LGA and Outer Western Sydney SSD).

- Where the ratio, or LQ value is close to, or equal to 1 it suggests that the local industry sector produces just sufficient to satisfy local demand for the products of that industry.
- An LQ value less than 1 suggests the local industry produces less than sufficient to satisfy local demand and that such products must be imported into the community.
- An LQ value greater than 1 assumes that the local industry produces well above the amount of satisfy local demand and that some good and services would be exported to other regions and communities. A high LQ would normally be one in which the community would have clearly developed as specialist industry.

Table 5. Location Quotient Analysis

2 Digit Industry	TZ to LGA LQ	Jobs	2 Digit Industry	TZ to SSD LQ	Jobs
Hospitals	7.9	258	Public Order, Safety and Regulatory Services	3.9	112
Public Order, Safety and Regulatory Services	5.5	112	Hospitals	3.8	258
Health Care and Social Assistance, nfd	4.6	16	Medical and Other Health Care Services	3.3	176
Medical and Other Health Care Services	4.0	176	Health Care and Social Assistance, nfd	3.3	16
Auxiliary Finance and Insurance Services	3.0	20	Auxiliary Finance and Insurance Services	2.9	20
Public Administration	2.9	90	Food Retailing	1.9	129
Finance	2.4	29	Finance	1.8	29
Residential Care Services	2.1	44	Social Assistance Services	1.6	68
Food Retailing	2.0	129	Residential Care Services	1.5	44
Social Assistance Services	1.7	68	Motor Vehicle and Motor Vehicle Parts Retailing	1.4	26
Food and Beverage Services	1.5	132	Public Administration	1.4	90
Motor Vehicle and Motor Vehicle Parts Retailing	1.4	26	Personal Care and Other Services	1.3	43
Personal Care and Other Services	1.4	43	Food and Beverage Services	1.3	132
Property Operators and Real Estate Services	1.1	21	Property Operators and Real Estate Services	1.1	21
Other Store-Based Retailing	1.1	94	Adult, Community and Other Education	1.0	16
Adult, Community and Other Education	0.9	16	Building Construction	0.8	25
Professional, Scientific and Technical Services	0.8	51	Professional, Scientific and Technical Services	0.8	51
Building Construction	0.7	25	Building Cleaning, Pest Control and Other Support Services	0.8	15
Preschool and School Education	0.5	51	Other Store-Based Retailing	0.8	94
Construction Services	0.3	26	Agriculture	0.7	19

Source: Transport Data Centre, 2006

The results of LQ analysis for 2 digit industry data is shown in Table 5. For Windsor Centre (TZ) when benchmarked against employment in Hawkesbury LGA, broad industry specialisation emerges in the following sectors:

- Hospitals – LQ of 7.9, with 258 jobs.
- Public Order, Safety and Regulatory Service – LQ of 5.5, with 112 jobs.

The results of LQ analysis for 2 digit industry data is shown in Table 5. For Windsor Centre (TZ) when benchmarked against employment in the Outer Western Sydney SSD, broad industry specialisation emerges in the following sectors:

- Public Order, Safety and Regulatory Services – LQ of 3.9, with 112 jobs.
- Hospitals – LQ of 3.8, with 258 jobs.
- Medical and Health Care Services – LQ of 3.3, with 176 jobs.

Table 6. LQ Analysis, Hawkesbury LGA to Outer Western Sydney SSD, 2006

2 Digit Industry	LQ	Jobs
Defence	3.2	1887
Pulp, Paper and Converted Paper Product Manufacturing	2.9	157
Publishing (except Internet and Music Publishing)	2.6	321
Agriculture	2.6	999
Transport Equipment Manufacturing	2.5	466
Printing (including the Reproduction of Recorded Media)	1.7	129
Wood Product Manufacturing	1.5	290
Polymer Product and Rubber Product Manufacturing	1.4	168
Heavy and Civil Engineering Construction	1.3	111
Manufacturing, nfd	1.3	331
Food Product Manufacturing	1.3	251
Grocery, Liquor and Tobacco Product Wholesaling	1.3	107
Building Construction	1.2	482
Basic Material Wholesaling	1.2	239
Sports and Recreation Activities	1.2	247
Construction Services	1.2	1027
Wholesale Trade, nfd	1.1	69
Adult, Community and Other Education	1.1	235
Repair and Maintenance	1.1	506
Machinery and Equipment Manufacturing	1.1	254

Source: Transport Data Centre 2006

The results of LQ analysis for 2 digit industry data is shown in Table 6. For Hawkesbury LGA when benchmarked against employment in the Outer Western Sydney SSD, broad industry specialisation emerges in the following sectors:

- Defence – LQ of 3.2, with 1887 jobs.
- Pulp, Paper and Converted Paper Product Manufacturing – LQ of 2.9, with 157 jobs.
- Publishing – LQ of 2.6, with 321 jobs.
- Agriculture – LQ of 2.6, with 999 jobs.

Attachment B: Survey of centre patrons and business owners

Two surveys were conducted to assist in determining the socio-economic impacts that are likely to result from replacing the Windsor Bridge. The first was a survey of businesses within Windsor town centre and the second was a survey of patrons of Windsor town centre.

Both of these surveys collected information regarding the current function of Windsor town centre and provide some initial indication of how the two options for the bridge replacement might impact on this existing function. Specifically, information was sought regarding the portion of trade that can be attributed to passing traffic, patrons' origins and their travel patterns, the purpose of patrons' visit to the Windsor town centre and why Windsor town centre was chosen as a destination over other centres.

Methodology

Your Source, a market and social research business, was commissioned to conduct the field work for both surveys. The field work was completed from Thursday 11 December through to Saturday 13 December 2009 between 9am and 5pm.

The field workers doing the patrons survey were instructed to obtain good coverage of the Windsor Riverview Shopping Centre and the intersections of Bridge and George Streets and Bridge and Macquarie Streets. The physical space covered by the field workers was divided into roam areas for the purpose of analysing the results. The three roam areas are shown in Figure 1. Patrons were selected randomly and 254 patrons were surveyed

The business survey was conducted with the shop attendants of 55 randomly selected businesses within Windsor town centre. Of the 55 businesses surveyed, business types included:

- clothing and footwear retail (20 per cent)
- 'other' (42 per cent)
- newspaper and confectionary retail (13 per cent)
- household goods shopping, electrical goods retail (13 per cent)
- supermarket operators (11 per cent)

The 'other' category includes businesses such as jewellers, a travel agency, an optometrist, and a dry cleaner, amongst others.

The number of businesses and patrons surveyed is sufficient for the results to be statistically significant in the context of the local population.

Figure 1. Map of roam areas



Detailed results of the business survey

Portion of trade attributed to passing traffic

Businesses were asked for their opinions on what share of their turnover is attributable to 'people who visit Windsor as their final destination'. The median response to this question was 80 per cent. Businesses were also asked what share of their turnover is attributable to 'people who visit Windsor on their way to another destination'. The median response to this question was 20 per cent.

Many businesses owners did, however, feel that their turnover would be likely to improve if there was more vehicle traffic (73 per cent). Approximately a quarter of business owners indicated that there would be 'no impact' on their turnover with a change in vehicle traffic. Only 4 per cent stated their 'business would be better with less vehicle traffic'.

'Clothing/Footwear Retail', 'Newspaper/Confectionary Retail' and 'Household and Electrical Goods Retail' were among the categories of business which indicated that there would be 'no impact' on their turnover with a change in vehicle traffic or stated their 'business would be better with less vehicle traffic'. There were however, greater numbers of these businesses who answered that business would be better with more vehicle traffic.

The survey results regarding the likely impact of more or less traffic on turnover was also segmented into the roam areas within the Windsor town centre. Table 1 shows these results and indicates that the majority of business operators within all roam areas were of the opinion that they would have better business turnover if traffic increased.

Table 1. Impact of traffic on businesses, by roam area

	Roam Area One	Roam Area Two	Roam Area Three	All Areas
No Impact	20.0%	27.8%	23.5%	23.6%
Better with less traffic	5.0%	5.6%	0.0%	3.6%
Better with more traffic	75.0%	66.7%	76.5%	72.7%

Customer origins and travel patterns

Over 85 per cent of businesses surveyed believe that over half their customers are local. Businesses indicated that they thought most of their customers travelled to Windsor by car (96.4 per cent). This was supported in the patron survey and shows the importance of vehicle access and car parking. Only two (3.6 per cent) businesses stated that most of their customers travelled on foot.

Of those businesses that specified that the majority of their customers travel by car to Windsor, 52.8 per cent indicated that they would expect their patrons to park in a 'designated parking area within 200m of destination'.

Why customers chose to shop in Windsor town centre

Businesses were asked to nominate the reasons they believe customers choose to visit Windsor, as opposed to another location. The most common responses were 'because it is close to home' (50 per cent of businesses), 'for the character of the centre' (50 per cent of businesses) and for 'a particular product or service' (33 per cent of businesses). Factors such as ease to drive, park and walk were considered reasons by a smaller share of business.

Detailed results of the patrons' survey

Purpose and motivation of visit

The results of the survey show that the most common reason patrons visit Windsor town centre is 'food/grocery shopping' (42.5 per cent of respondents). This was followed by 'clothing and footwear shopping' and 'other' reasons with 18.5 per cent and 15 per cent respectively. People also visit the centre to 'use a service' (10.2 per cent) and 'window shop' (9.4 per cent).¹²

The results of the survey show that people visiting Windsor are likely to spend approximately '\$11-\$50' (38.6 per cent), followed by 'more than \$100' (27.6 per cent), '\$51-\$100' (19.7 per cent) and 'less than \$10' (14.2 per cent).

The patrons' survey revealed that patrons choose to visit Windsor, as opposed to another location, because it is close to home (40 per cent), for a particular product/ service (18 per cent), and for the character of the centre (9 per cent). Other reasons include ease to drive, park and walk which were nominated fewer times than the others discussed.

Around half of the respondents who answered 'for a particular product/ service' worked in the centre. Other particular product/ services responses included local real-estate agents, beauticians and car servicing.

The patrons' survey indicates that the majority of people (60 per cent) visit Windsor town centre 'several times a week'. This was followed by 21 per cent visiting the centre 'weekly' and 9 per cent visiting the centre 'fortnightly'. The high proportion of people who visit the centre on a regular basis also provides support that the centre services a local catchment area.

Around 84 per cent of patrons surveyed planned their visit to Windsor town centre in advance while the remaining 16 per cent stated their visit was spontaneous. Those who stated their visit was spontaneous largely visited the centre for the purpose of food, clothing and footwear retail.

Destination and origin of patrons

The patrons' survey indicates that approximately 86 per cent of people visiting Windsor travelled from 'home'. Of people surveyed, 11 per cent travelled from 'work', with just 2 per cent from 'other' locations.

The patrons' survey indicates that approximately 86 per cent of people visiting Windsor travelled from 'home'. Figure 2 shows the place of residence of survey respondents. A large share of the

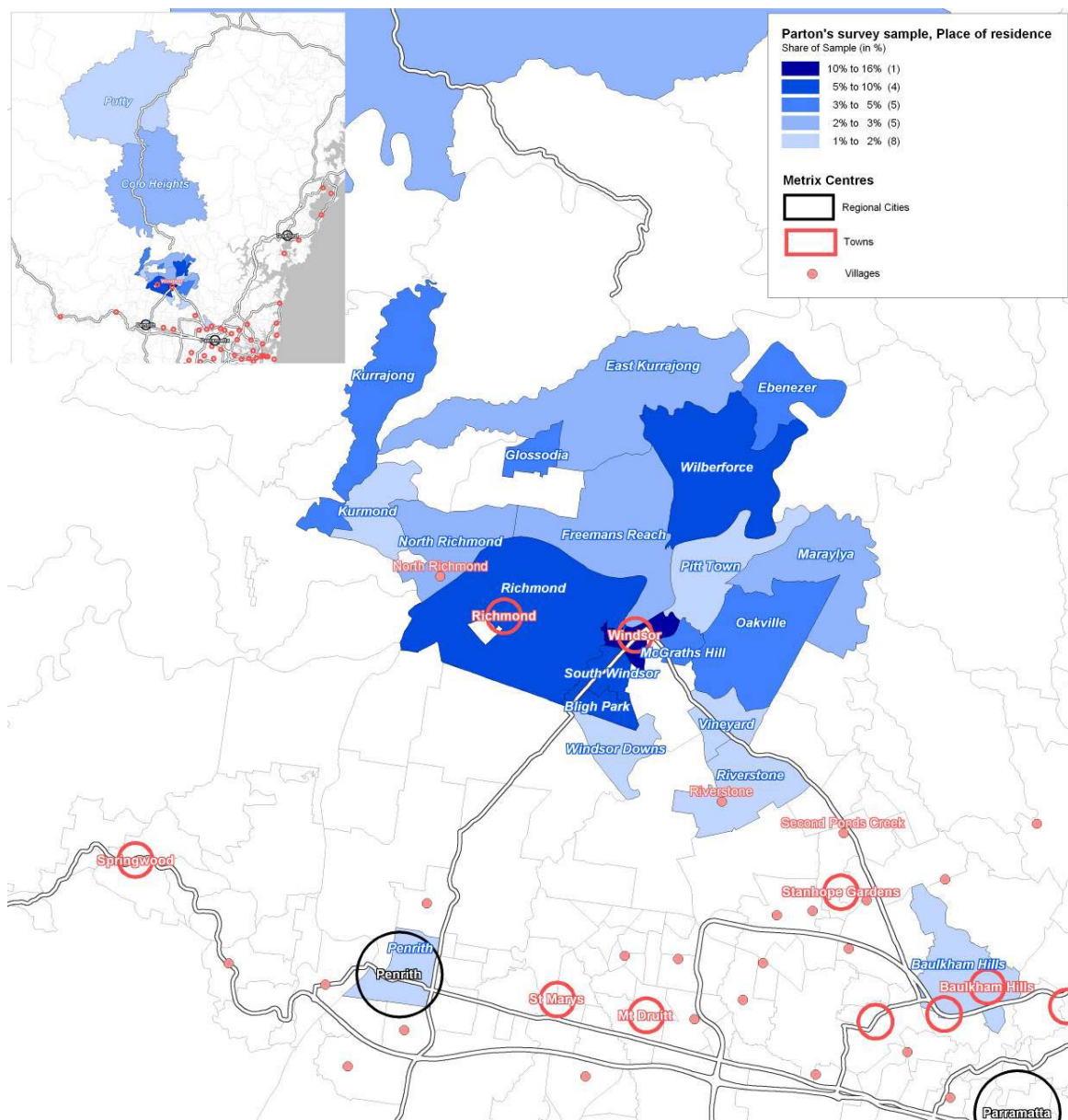
¹² Fewer than 20 persons gave responses to visiting for the purpose of 'take away food', 'newspaper or confectionary shopping', 'household goods shopping', 'eating/drinking out', 'visiting a medical specialist', 'personal business', 'travelling though the area', 'dropping/ picking up a friend', 'looking for work', 'recreation/ sport related to river' or 'tourism'.

patrons surveyed live in Windsor and the adjacent suburbs of South Windsor, Bligh Park and Richmond. The catchment then extends to north east.

The majority of patrons travelled to the centre by car (85 per cent). Other means by which people travelled to Windsor include 7 per cent 'on foot', and 7 per cent by 'public bus'. Planned trips to Windsor attributed to nearly 85 per cent of visits, with just 15 per cent being spontaneous.

The majority of people who travelled by car to Windsor parked in a 'designated parking area within 200m of destination' (68 per cent). This was followed by 13 per cent parking 'on street within 200m of destination', 10 per cent in a 'designated parking area more than 200m from destination', and 8 per cent 'on street more than 200m from destination'.

Figure 2. Patrons' survey sample, place of residence (share of sample)



The survey indicates that the impact of existing traffic on patrons' enjoyment of the centre is likely to be minimal, with 59 per cent of people stating there is 'no impact'. This was followed by 20 per cent of people preferring less traffic because it would be faster to get things done, 12 per cent because it would be easier to walk around, and 10 per cent because there would be less noise. Only 2 per cent of people would prefer 'more traffic'.

Patrons who travelled by car to Windsor town centre were asked 'how often they would visit Windsor if the main road bypassed the centre, and it took an additional 10 minutes to reach the centre'¹³. The results of this question were then cross tab with an earlier question about their current frequency of visits to determine if the frequency of patrons' visits would change. .

Table 2, Table 3 and **Error! Reference source not found.** show the responses of people who travel by car to Windsor and the likely impact of increased travel times to the centre.

The patrons survey confirmed around 70 per cent of customers who visit the centre several times a week (by car) expressed that if it took an additional 10 minutes to reach Windsor they would be just as likely to visit the centre just as often. Approximately 30 per cent considered that they would travel less frequently to the centre – typically changing from visits several times a week to weekly visits. Patrons who would reduce the frequency of their visit were visiting the centre on the day surveyed for the purpose of food, clothing and footwear retail.

Table 2. People who travel by car several times a week to Windsor, response to increased travel time

	Several Times a Week	Weekly	Fortnightly	Monthly	More Than Once a Year (Less Than Monthly)	Less Than Once a Year	Total
Several Times a Week	86	25	6	2	0	1	120
%	71.7%	20.8%	5.0%	1.7%	0.0%	0.8%	100.0%

Table 3. People Who Travel by Car Weekly to Windsor, Response to Increased Travel Time

	Several Times a Week	Weekly	Fortnightly	Monthly	More Than Once a Year (Less Than Monthly)	Less Than Once a Year	Total
Weekly	3	28	12	3	1	1	48
%	6.3%	58.3%	25.0%	6.3%	2.1%	2.1%	100.0%

¹³ The estimate of 10 minutes additional travel time was advised by the RTA when the survey was designed. It represents a worst case scenario.

Table 4. People Who Travel by Car Fortnightly to Windsor, Response to Increased Travel Time

	Several Times a Week	Weekly	Fortnightly	Monthly	More Than Once a Year (Less Than Monthly)	Less Than Once a Year	Total
Fortnightly	0	1	13	7	0	1	22
%	0.0%	4.5%	59.1%	31.8%	0.0%	4.5%	100.0%

People who travelled by foot to Windsor were asked 'how often they would visit Windsor if the pedestrian access over the river took an additional 10 minutes to reach the centre'. This question did not apply to around 30 per cent people who travelled by foot, presumably as they do not use the bridge.

Table 5 shows the response of people who travel to Windsor by foot several times a week, and the frequency of their visits if travel times to the centre increased. Of people who travel by foot to Windsor several times a week 59 per cent would continue to visit the centre just as frequently; 12 per cent would visit less frequently –changing their visits to a weekly basis.

Table 5. People Who Travel by Foot to Windsor, Response to Increased Travel Time

	Several Times a Week	Weekly	Fortnightly	Monthly	More Than Once a Year (Less Than Monthly)	Less Than Once a Year	Not Applicable	Total
Several Times a Week	10	2	0	0	0	0	5	17
%	58.8%	11.8%	0.0%	0.0%	0.0%	0.0%	29.4%	100.0%

The survey indicates that a change in parking provision would have no impact on the decision of 52.2 per cent of patrons who drove by car to visit the centre. It showed that a change would have an impact on 47.8 per cent of patrons who drove by car to visit the centre. The latter result highlights the heavy reliance on private motor vehicles to access the centre. Those people that stated they would be impacted by a change in parking provision would be prepared to walk a median distance of 200 metres from their car to their destination.

Summary of results

Business owners' survey

The business owners' survey found that businesses estimate that the majority of their customers visit Windsor town centre as their final destination although some 73 per cent of businesses consider they would be better off with more vehicle traffic. These results imply that while passing trade per se is not important to business turnover, many business operators are of the opinion that an increase in the overall volume of patrons may increase the turnover of their business.

Businesses were asked to nominate the reasons they believe customers choose to visit Windsor, as opposed to another location. The most common responses were 'because it is close to home' (50 per cent), 'for the character of the centre' (50 per cent) and for 'a particular product or service' (33 per cent) and 'for the character of the centre' (50 per cent).

Over 85 per cent of businesses surveyed believe that more than half their customers are local. Businesses stated that they thought the majority of their customers travel to Windsor by car and parked in a designated parking area within 200m of their destination.

Patrons survey

The patrons' survey indicates that the patrons visit Windsor for food/grocery shopping (43 per cent), clothing and footwear shopping (19 per cent) and 'other' activities (15 per cent). Details of the 'other' were not provided. The majority of customers in Windsor travel from home (87 per cent), with their trip being planned (85 per cent). Eighty five per cent of people visiting the centre travel by car, with approximately 70 per cent parking in a designated parking area within 200m of their destination. When asked if a change in parking provision would impact the patrons' decision to visit Windsor, around half of respondents stated it would, but on average indicated they were prepared to walk an additional 200m to their destination.

The patrons' survey revealed that they choose to visit Windsor, as opposed to another location, because it is close to home (40 per cent), for a particular product/ service (18 per cent), and for the character of the centre (9 per cent).

Around 60 per cent of patrons surveyed visit Windsor several times a week, with a further 30 per cent visiting on either a weekly or fortnightly basis. The high proportion of people who visit the centre frequently illustrates that Windsor town centre services a local area.

Around 70 per cent of customers who visit the centre several times a week (by car) expressed that if it took an additional 10 minutes to reach Windsor they would be just as likely to visit the centre just as often¹⁴. Approximately, 30 per cent would travel less frequently to the centre –typically

¹⁴ SGS was advised by the RTA that option 6 would require an additional 10 minutes to reach the Windsor town centre. The estimate of 10 minutes additional travel time represents a worst case scenario.

changing to weekly visits. Most of patrons who would travel less frequently were visiting the centre on the day surveyed for the purpose of food, clothing and footwear retail.

Attachment C: Surveys

Business survey

1. What is the nature of your business?					
	Count	%		Count	%
Take away retail	0	0.0%	Pub/Bar	0	0.0%
Food/Grocery retail	6	10.9%	Cafe/Restaurant	1	1.8%
Clothing or footwear retail	11	20.0%	Other	23	41.8%
Newspaper, Confectionary retail	7	12.7%			
Household goods shopping, electrical goods retail	7	12.7%			

2. Where do most of your customers come from?	Less than 10%	10- 24 %	25-49%	50-74%	75-90%	More than 90%
Local (Windsor)	0.0%	5.5%	7.3%	23.6%	41.8%	16.4%
More than 10 minutes drive north (across Windsor Bridge)	83.6%	9.1%	5.5%	0.0%	1.8%	0.0%
More than 30 minutes drive north (across Windsor Bridge)	72.7%	14.5%	9.1%	3.6%	0.0%	0.0%
More than 10 minutes drive south (towards Rouse Hill)	87.3%	7.3%	1.8%	1.8%	1.8%	0.0%
More than 30 minutes drive south (towards Rouse Hill)	63.6%	20.0%	14.5%	0.0%	1.8%	0.0%

3. How do most of your customers travel to your business?		
	Count	%
Car	53	96.4%
Public Bus	0	0.0%
On foot	2	3.6%
Other	0	0.0%
Don't know	0	0.0%

4. [If most travel by car], where do they park?		
	Count	%
On street within 200m of destination	9	17.0%
On street more than 200m from destination	10	18.9%
In designated parking area within 200m of destination	28	52.8%
In designated parking area more than 200m from destination	4	7.5%
Don't know	2	3.8%

**5. Why do your customers choose to visit this location, as opposed to another location?
(may select more than one option)**

	Count	%
Close to home	27	49.1%
Easy to drive to	7	12.7%
Easy to park	9	16.4%
Easy to walk to	7	12.7%
For a particular product/service - Please specify	18	32.7%
For the character of the centre	19	49.1%
Other - Please specify	3	12.7%

6. Approximately what is the split of your business turnover attributable to... ?

	Median	
People who are visiting Windsor as their final destination?	80	[per cent]
People who are visiting Windsor on their way to another destination?	20	[per cent]

7. What impact does vehicle traffic have on your business turnover?

	Count	%
No impact	13	23.6%
Business would better with less vehicle traffic	2	3.6%
Business would better with more vehicle traffic	40	72.7%

8. Date		Time		Location	
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Patron's survey

1. What is the purpose of your visit here today? (may select more than one option)					
	Count	%		Count	%
Take away food	8	3.1%	Visiting Medical Specialist	4	1.6%
Food/Grocery shopping	108	42.5%	Personal business	9	3.5%
Clothing or footwear shopping	47	18.5%	Travelling through the area	3	1.2%
Newspaper, Confectionary shopping	6	2.4%	Visiting friend/s and relative/s	4	1.6%
Household goods shopping, electrical goods shopping	10	3.9%	Dropping off/picking up friend or relative	1	0.4%
Window shopping	24	9.4%	Looking for work	0	0.0%
Eating/drinking out; Having a drink in a pub or bar	7	2.8%	Recreation/sport related to river	4	1.6%
Eating/drinking out; Visiting a cafe/restaurant	11	4.3%	Tourism	1	0.4%
Using service: bank, post office, hairdresser	26	10.2%	Other	38	15.0%

2. Roughly how much money will you spend in Windsor today?		
	Count	%
Less than \$10	36	14.2%
\$11 to \$50	98	38.6%
\$51 to \$100	50	19.7%
More than \$100	70	27.6%

4. From where did you travel today?		
	Count	%
Home	219	86.2%
Work	29	11.4%
Other	6	2.4%

3. Was your stop in Windsor planned prior to your departure or was it spontaneous when passing through?		
	Count	%
Planned	214	84.3%
Spontaneous	40	15.7%

5. How did you travel here today?		
	Count	%
Car	216	85.0%
Public Bus	17	6.7%
On foot	18	7.1%
Other	3	1.2%

6a. [If travelled by car], where did you park?		
	Count	%
On street within 200m of destination	30	13.8%

On street more than 200m from destination	18	8.3%
In designated parking area within 200m of destination	149	68.3%
In designated parking area more than 200m from destination	21	9.6%

6b. Would a change in parking provision impact on your decision to visit Windsor?

	Count	%
Yes	108	47.8%
No	118	52.2%

6c. [If yes], how far would you be prepared to walk from your car to your destination?

	Count	Median
Please nominate distance	116	200m

7. Why did you choose to visit this location, as opposed to another location? (may select more than one option)

	Count	%
Close to home	126	39.9%
Easy to drive to	18	5.7%
Easy to park	19	6.0%
Easy to walk to	19	6.0%
For a particular product/service - Please specify	57	18.0%
For the character of the centre	29	9.2%
Other - Please specify:	48	15.2%

8. What impact does traffic have on your enjoyment of the centre? (may select more than one option from 2 to 5)

	Count	%
No impact	145	49.7%
It would be better with less traffic –because there would be less noise	28	9.6%
It would be better with less traffic - because it would be easier to walk around	36	12.3%
It would be better with less traffic –because it would make getting things done faster	57	19.5%
It would be better with less traffic – other reason - please specify	19	6.5%
It would be better with more traffic	7	2.4%

9. How frequently do you visit Windsor?

	Count	%
Several times a week	149	59.1%
Weekly	54	21.4%
Fortnightly	22	8.7%
Monthly	13	5.2%
More than once a year (but less than monthly)	9	3.6%
Once a year	3	1.2%
Less than once a year	2	0.8%

10. [If travelled by car], how frequently would you visit Windsor if the main road bypassed the centre, and it took 10 minutes off the main road to reach the centre?

	Count	%
Several times a week	91	40.6%
Weekly	57	25.4%
Fortnightly	33	14.7%
Monthly	22	9.8%
More than once a year (but less than monthly)	11	4.9%
Less than once a year	10	4.5%

11. [If travelled by foot], how frequently would you visit Windsor if the pedestrian access over the river took an additional 10 minutes to reach the centre?

	Count	%
Several times a week	11	52.4%
Weekly	3	14.3%
Fortnightly	1	4.8%
Monthly	0	0.0%
More than once a year (but less than monthly)	1	4.8%
Less than once a year	0	0.0%
Not applicable (do not use bridge)	5	23.8%

12. Age group and gender	Under 18 years		18 to 25 years		25 to 45 years		45 to 65 years		Over 65 years	
	Count	%	Count	%	Count	%	Count	%	Count	%
Male	5	2.0%	15	5.9%	31	12.2%	46	18.1%	20	7.9%
Female	5	2.0%	20	7.9%	51	20.1%	46	18.1%	15	5.9%