# MAPPING SOFTWARE

## Example of project resulting in the creation of the following two maps:

**Project:**  Social Impact Assessment for a new liquor licence in Newcastle.

As part of the liquor licence application process the applicant is required to address areas of socio-economic disadvantage such as levels of unemployment, languages other than English spoken at home, proportions of Indigenous persons and single parent families in the local and broader communities surrounding the site of the proposed licence.

The process also requires the applicant to have an understanding of health facilities in the local and broader communities.

**Task:**  1. Analyse ABS 2006 census data relating to socio-economic disadvantage and present in a 'thematic map' form.

2. Identify local health and emergency services in the local and broader community and present findings on a 'facilities street map'.

**Results:**  1. Across Newcastle LGA the unemployment rate was 7.3% in 2006.

Thematic mapping of 2006 unemployment rates using **MapInfo®** revealed:
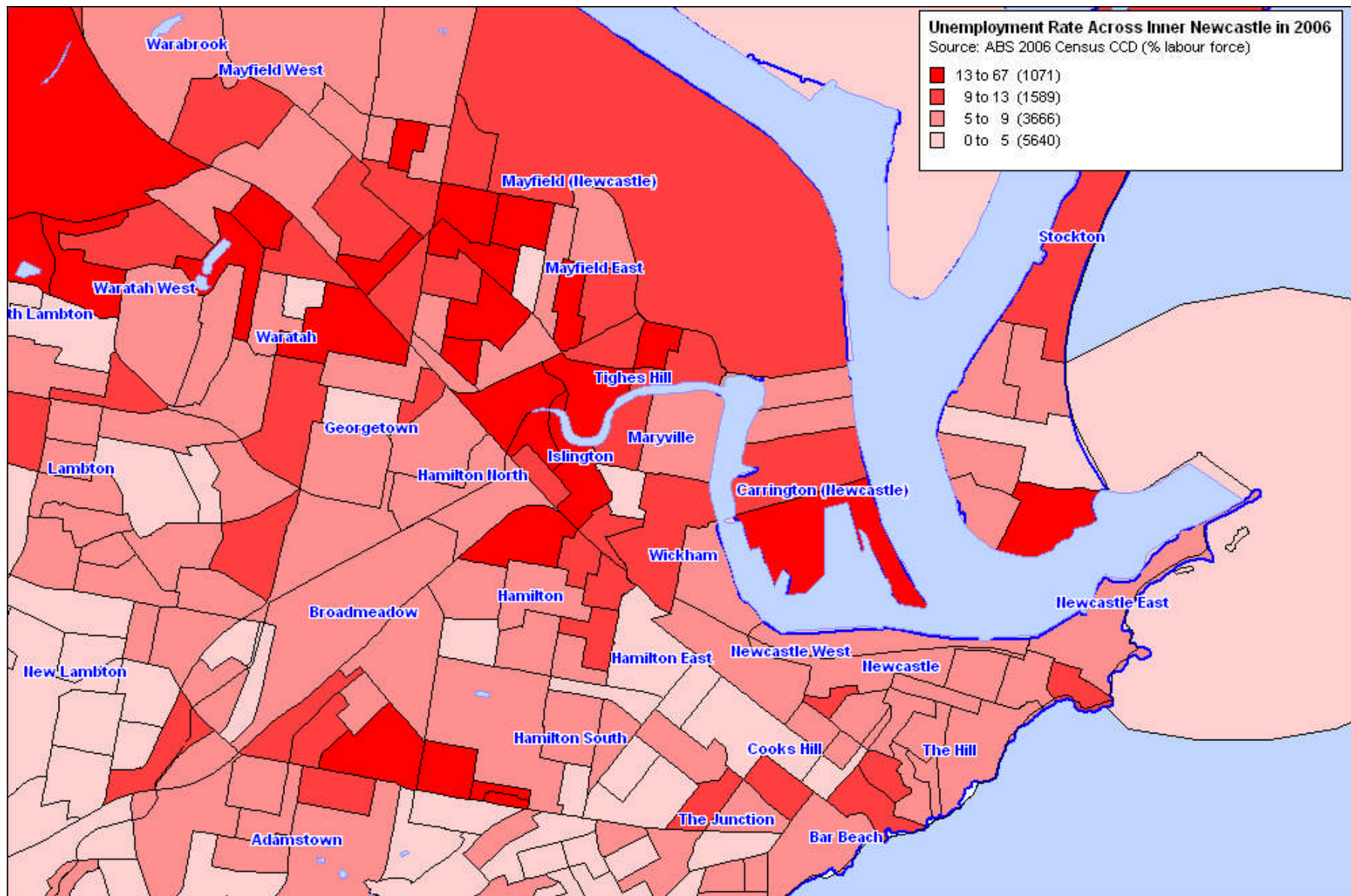
- Lower levels of unemployment (between 0 and 5%) around the suburbs of Hamilton East and Cooks Hill (very light red).
- Higher levels of unemployment (over 9%) in the suburbs of Carrington, Islington, Tighes Hill and Mayfield (darker red).

2. Once the locations (street addresses) of relevant health and emergency facilities were identified Key Insights used **MapInfo®** and **StreetPro® Display** to firstly geocoded and secondly position the locations on a map. Locations:
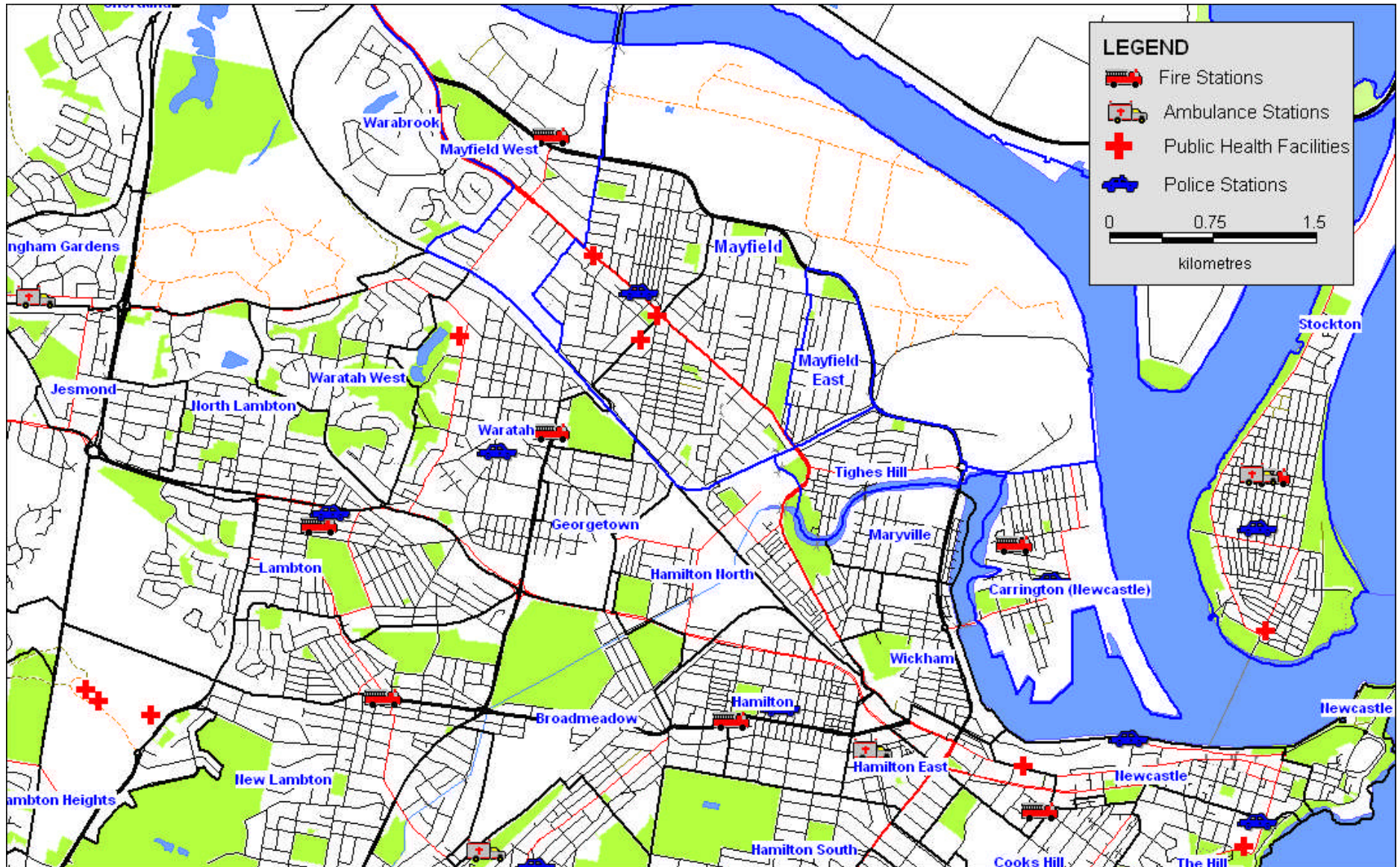
- Are easily identifiable.
- Can be assessed for proximity (distance) to facilities. For example, residents in New Lambton are in very close proximity to several health facilities (John Hunter Hospital), while residents in Broadmeadow have further to travel.

Both forms of mapping allow the reader to better visualise the results, leading to greater comprehension of the findings.

# MapInfo® (thematic mapping of unemployment rates across Inner Newcastle City Suburbs)



Unemployment Rate Across Inner Newcastle in 2006
Source: ABS 2006 Census CCD (% labour force)

- ■ 13 to 67 (1071)
- ■ 9 to 13 (1589)
- ■ 5 to 9 (3666)
- □ 0 to 5 (5640)

Warabrook
Mayfield West
Mayfield (Newcastle)
Mayfield East
Stockton
Waratah West
th Lambton
Waratah
Tighes Hill
Georgetown
Maryville
Islington
Lambton
Hamilton North
Carrington (Newcastle)
Wickham
Hamilton
Newcastle East
Broadmeadow
Hamilton East
Newcastle West
Newcastle
New Lambton
Hamilton South
Cooks Hill
The Hill
The Junction
Bar Beach
Adamstown

# MapInfo® & StreetPro® Display (Emergency services and public health facilities in Inner Newcastle City Suburbs)



LEGEND

Fire Stations
Ambulance Stations
Public Health Facilities
Police Stations

0    0.75    1.5

kilometres

Warabrook
Mayfield West
Mayfield
Mayfield East
Stockton
ingham Gardens
Jesmond
Waratah West
North Lambton
Waratah
Tighes Hill
Maryville
Georgetown
Lambton
Hamilton North
Carrington (Newcastle)
Wickham
New Lambton
Broadmeadow
Hamilton
Hamilton East
Newcastle
Lambton Heights
Hamilton South
Cooks Hill
The Hill

# TEXT ANALYSIS SOFTWARE

## Example of project:

Project:        Assess community attitudes towards areas of Newcastle.

Task:        1. Design a survey which allows people to express their opinions freely. This often means allowing people to freely write their responses - known as open text questions.

2. Analyse and present the responses. Open text questions are problematic in terms of the time taken to firstly code and categorise the responses, and secondly to analyse and present the findings. Using text analysis software considerably reduces the time to code and categorise, while improving accuracy of the findings - there are no person-to-person variances in coding or categorising.
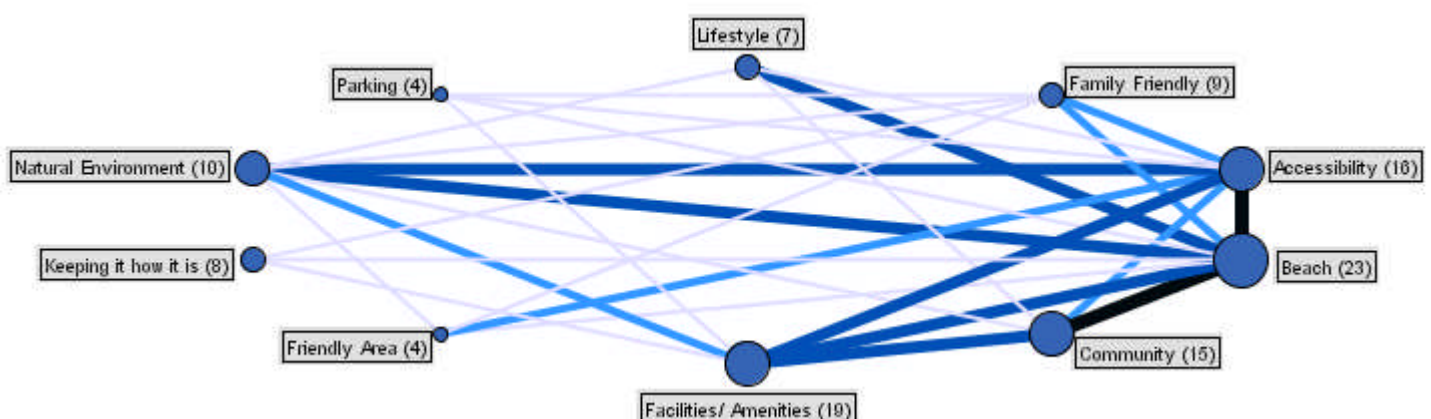
Results:

*Question:        In GENERAL, what is important to you about the Merewether area?*

**STAfS** text spreadsheet (with responses in the left column and **STAfS** categories in the right column)

| Id | Response | Categories |
|----|----------|------------|
| 1 | Beautification of our wonderful coast | Natural Environment |
| 2 | Beach, Bush and our laid back lifestyle | Beach Lifestyle |
| 3 | Health, Human relations & community involvement | Community |
| 4 | Everything - pool, beach, access to town, closeness & central location | Beach |
| 5 | Surf culture - easy access to faciliaties | Facilities/ Amenities |
| 6 | More family-orientated (as it used to be) & less transients (unit development). Council rates should be same as any other suburb. More off-street parking (for residential & commecial developments) | Parking |
| 7 | Making Merewether free and open for public not making more and greater parking problems. The redevelopment should be at the baths area not the beach. | Beach |
| 8 | local infrastructure. Kiosk facilities at beach. No to the proposed Aldi stor in Merewether | Facilities/ Amenities |

After coding and categorising using **STAfS**, the results can be presented in standard graphical form or alternatively as a 'visualisation web'.



Note: larger circles represent more responses; thicker lines represent greater association between categories within the open-text responses