Vale of Glamorgan Local Development Plan
Retail Planning Study

Prepared by: CACI

Property Consulting Group
September 2008

CACI Limited
CACI House
Kensington Village
Avonmore Road
London
W14 8TS

Tel 020-7605 6000
Fax 020-7603 5862

Table of Contents

Table of Figures

1.0 Executive Summary

Vale of Glamorgan Economy & Retail Overview

1.1 The Vale of Glamorgan's retail economy is based on strong resident demand for convenience and comparison goods. The Vale has 119,290 residents living in 48,878 households[1]. Using CACI's Retail Footprint and ProVision models, taken from the "Classification of Individual Consumption According to Purpose" (COICOP), resident spend has been assessed at £256 million annually for convenience goods which includes food, drink, medical products and other personal care products and £298 million for comparison purchases such as clothing, household applications, books and other personal effects[2], spent both in and outside the Borough. Presently, £218 million of annual convenience spend and £88 million of annual comparison spend is retained in the area.

1.2 The Vale is relatively affluent; the majority of houses are owner-occupied with average house prices in the region of £223,700[3]. The average earnings in the borough are £34,108, slightly above the national average of £33,706[4]. Key areas of employment are in the retail and manufacturing sectors, while there is above average representation of those employed in public administration, as well as electricity, gas and water utilities.

1.3 The Vale as a whole is well catered for in convenience provision, although there is notable overrepresentation of off-licences (185% the national average). Conversely, there is currently no representation of health food specialty stores in the Vale.

1.4 Relative to competing Cardiff and Bridgend, comparison goods provision is currently lacking in the Vale. There is extremely low representation in the area of the following comparison retail categories:

- Drapery/Soft Furnishings
- DIY High Street Stores
- China/Glass/Giftware

There is also a significant under representation of Ladieswear, and to a lesser extent Menswear; this contrasts with an over representation of Childrenswear and Baby/Maternity Clothing.

Future Growth in the Vale

Population estimates for the Vale show a baseline population increase of 2.4% to 2012, 5.2% to 2017 and 10.8% to 2026. In addition to this, a projected housing requirement for the development of 7,500 residential units as part of the Local Development Plan 2011 - 2026 (LDP), will have a significant impact on population forecasts. Assuming moderate densities based on similar mixed use development schemes in other parts of the UK, development at this scale can be expected to generate additional population growth of 13,695 people over the course of the LDP[5].

---

[1] Source: CACI

[2] CACI spend estimates produced in partnership with Cambridge Econometrics

[3] Source: CACI StreetValue

[4] Source: CACI

[5] Source: CACI

In assessing future convenience and floorspace capacity, this development scenario has been incorporated into existing projections, representing a cumulative 11.06% increase in the final 2026 population against the 2007 baseline.

The main settlements, reflect this population increase by number and percentage growth. This does not reflect the actual population numbers, merely the growth rate.[6]

Fig 1: Population Growth by Numbers in Main Settlements

	2008	2013	2018	2023	2026
Cardiff	15,637	16,064	16,547	16,901	17,106
Bridgend	10,965	11,269	11,668	11,984	12,181
Llantwit Major	10,028	10,266	10,591	10,908	11,096
Barry	60,642	62,205	64,302	66,235	67,318
Penarth	28,377	29,160	30,139	31,013	31,548
Dinas Powys	7,511	7,724	7,976	8,205	8,338
Cowbridge	9,253	9,498	9,817	10,090	10,270

Source: CACI

Fig 2: Population Year on Year % Growth in Main Settlements

	2013	2018	2023	2026	Total
Cardiff	3%	3%	2%	1%	9%
Bridgend	3%	4%	3%	2%	11%
Llantwit Major	2%	3%	3%	2%	10%
Barry	3%	3%	3%	2%	11%
Penarth	3%	3%	3%	2%	11%
Dinas Powys	3%	3%	3%	2%	11%
Cowbridge	3%	3%	3%	2%	11%

Source: CACI

Convenience Capacity Assessment

Using CACI's ProVision supermarket turnover model, CACI have assessed the current and future balances of trade (ratio between store resident-based turnover and available resident spend) of convenience goods spend for six study zones. The needs assessment has taken into account both resident-based and tourist-based spend. Taking the impacts of resident population and the Internet the following conclusions were drawn on current and future need:

- The study zone defined for Barry is the biggest market and strongest performing sector in the Vale. Its resident convenience market is currently worth £123.2m and it has a turnover potential of £141.7m, showing an in-flow of expenditure from the surrounding zones of £18.5m. Barry currently supports 65% of the Vale's convenience economy. The current trading density (£6,424 per m²) is lower than the average for other zones in the area (the target trading density of £7,500 per m²).[7] The zone is currently over-capacity for convenience floorspace and no additional convenience floorspace is supported.

[6] Source: CACI

[7] Source: CACI

- Under the currently projected housing and population growth scenario, Barry will start to support additional convenience floorspace (58 m²) from 2017 onwards. By 2026, the additional of a mid sized convenience store (e.g. Tesco Express) will be supported by headroom of 989 m.
- The Cowbridge study area currently has no means of retaining its resident convenience spend of £33.3m. This expenditure is leaking to Bridgend and other zones, and is the highest expenditure leakage of any study zone.
- The Llantwit Major study area has a resident convenience market worth £29.4m. Of this, £16.1m is currently being leaked to other zones, the highest % leakage of any zone that has convenience floorspace. It also has the highest trading density of any zone (£34,365 per m²) and currently supports the addition of a mid-sized supermarket in the order of 1,445m² such as a Tesco Metro or Local Sainsbury's. Under current population projections, this additional supported floorspace increases gradually to 1,848m² by 2026.
- The Penarth study area has a resident convenience spend of £94.9m, and is losing £31.5m of this to Barry and Cardiff. With a trading density of £11,632 per m², Penarth currently supports the addition of 3,122m² of convenience floorspace, the highest supported by any zone. Catchment distribution of supermarkets in Cardiff and Barry suggest that the supported convenience floorspace needs to be developed/extended to compete effectively with the surrounding towns. The amount of convenience floorspace supported in Penarth increases to 5,037m² by 2026.
- Overall, the Vale is leaking £62.5m in convenience spend out of the borough, 22% of the resident spend available (£218.4m).

Comparison Capacity Assessment

CACI has employed their Retail Footprint comparison goods catchment and turnover model to estimate current and future turnover potential at each of the three main town centres. The two other retail centres in the Vale, Llantwit Major as a *Rural Centre* and Dinas Powys as a *Local Centre*, do not contribute significantly to comparison turnover.

Converting this turnover potential into capacity, CACI have used target-trading densities floorspace to determine 'headroom' estimates for each town. A separate future floorspace needs assessment has been performed for each centre. Taking into account the impacts of resident population and Internet spend impacts, the following conclusions were drawn on present and future need:

1.5 Barry town centre (Barry Town Centre & High Street/Broad St) draws strong performance from its high percentage (87%) of independent comparison retail, and despite the proximity of Cardiff it has a relatively strong hold on its primary catchment. The current turnover potential is £40.5m. At a target trading density for comparison goods of £3,000 per m², only small comparison headroom is currently supported - an addition of 577m². Under current population projections however, this headroom will increase to 5,797m² by 2026. Barry's retail mix highlights the areas that would increase the appeal of Barry and reclaim more shoppers from secondary and tertiary catchments - the crucial categories that are underrepresented are Clothing, Leisure Goods and Electrical Goods.

1.6 Penarth town centre has a current turnover potential of £19.9m with a trading density of £3,420 per m². It currently supports slightly more comparison headroom than Barry, at 816m². However the comparison headroom in Barry will overtake that of Penarth by 2012. Despite the population adjustments the amount of headroom supported in Penarth will not change significantly going forward to 2026.

1.7 Cowbridge has a current turnover potential of £10.4m and a trading density of £3,134 per m². Due to market scale, a target trading density of £2,000 per m² is used to assess capacity and headroom. Currently 1,887m² of additional comparison floorspace is supported in Cowbridge, and under current housing and population projections this does not change significantly going forward to 2026.

1.8 No headroom for additional floorspace was identified at Culverhouse Cross. Its current turnover potential is £11.0m, less than the turnover the current retail operators on the site are expected to be making. Looking ahead to 2026, the lack of headroom is not expected to change significantly across any of the planning period years. Currently Culverhouse Cross is categorised as *Retail Park Minority Fashion*, having only 5.8% of its retail fascias as fashion (approx 26% of floorspace). Scenario modelling of retail space has shown that an increase in fashion retail at the centre has a disproportionate uplift on the performance of the centre, and an adverse effect on Barry and Penarth. Preventing the retail mix at the scheme from exceeding the current fashion retail percentage will help maintain Barry's existing comparison goods appeal.

1.9 The analysis has confirmed that the two other retail centres in the Vale, Llantwit Major as a Rural Centre and Dinas Powys as a Local Centre, do not contribute significantly to comparison turnover.

For ease, the following Glossary of Terms can be used for reference to help the reader with CACI and other definitions.

Glossary

COICOP	Classification of Individual Consumption According to Purpose
DEIN	Welsh Development Agency
EFS	Expenditure and Food Survey
LDP	Local Development Plan
ODPM	Office Deputy Prime Minister[8]
RF	Retail Footprint
Sq. M.	Square Metres
UDP	Unitary Development Plan
VGC	Vale of Glamorgan Council

[8] Now "Communities & Local Government"

2.0 Introduction

Agenda

2.1 The Vale of Glamorgan Council (VGC) has tasked CACI with providing evidence to support the emerging Local Development Plan (LDP) and in understanding a sustainable retail vision for Barry Town Centre.

2.2 The study aims to provide a comprehensive overview of the current and future shopping dynamics of Barry, Penarth, Cowbridge and Llantwit Major (distinguishing between the convenience, comparison and bulky goods markets) for the LDP Evidence Base.

2.3 The Vale of Glamorgan has supplied CACI with statistics, which covers a five-year period and initiates a co-ordinated framework for action, along with the opportunities for improvement within these centres. The document builds upon previous strategies and studies undertaken.

2.4 CACI's comprehensive evidence base has been used to assess floor space capacity, future productivity improvement rates and additional floor space requirements. Detailed quantitative information has been prepared on consumer expenditure levels and retail centre market shares for 2007, 2012, 2017 and 2026 accounting for trends in underlying consumer expenditure, including the impacts of increased spend on the internet, and changes that will be brought about by pipeline retail developments.

This section outlines the methodologies and analytical approaches employed in achieving each of these stages.

Study Approach & Scope

2.5 CACI have contextualised the report with reference to the current body of retail evidence for VGC. This evidence base includes:

- VGC Unitary Development Plan (UDP)
- Holton Road Action Plan
- Barry Town Centre Living Study

Barry Town Centre Retail Strategy

2.6 CACI's Retail Footprint model, ACORN consumer classification, EFS expenditure projections and Retail Locations database of retail outlets are used to compare the modelled market potential, shopper demographics and role and function of Barry with the UK's top 400 retail centres. A series of similar centres have been identified through shopper profile correlation techniques. Barry's competing centres are also identified.

This allows The Vale to understand the range of retail opportunities that Barry could entertain in the future, by comparing retail provision, market position, sector mix, the presence of key tenants, household expenditure profiles, market dominance and shopper ACORN profiles against that of the benchmark and competing centres.

Retail Footprint is a gravity model and is based on four general principles, which influence the level of spatial interaction between retail centres of all sizes and classes:

- Physical distance to (or time taken to reach) the centre.
- The 'attractiveness' of the centre's facilities.
- The degree of intervening opportunities or level of competition.
- The size of the population within an area.

In South Wales the Retail Footprint model has been validated against household telephone surveys as part of a previous planning study prepared on behalf of the Welsh Development Agency (DEIN). Recent study work in Aberystwyth also demonstrated close correlation with visitor survey results and Retail Footprints' estimated catchment.

A full methodology is available as an addendum to this report.

2.7 Benchmark centres provide a means of creating confidence in retailers, a means of showing how Barry could be different to its current position, and headlines that can be communicated to potential tenants and investors.

2.8 The analysis has identified specific sectors where gaps currently exist in Barry's current retail provision.

2.9 A second separate report will test the potential "headroom"[9] for growth in Barry Town Centre – using commercially aware techniques, determining an optimum growth scenario with respect to achieving a sustainable outcome (i.e. not leading to retail space dilution which is when new development simply shifts the emphasis of town centre pitch to the unsatisfactory detriment to the town centre as a whole.) The second report was included after this study to undertake a small assessment of Barry, separate to planning report.

2.10 Understanding the market size and expenditure growth trends for individual retail centres is achieved using Retail Footprint – CACI's comparison goods catchment model. Retail Footprint reflects actual shopper behaviour and defines overlapping centre catchments for over 3000 retail centres across the United Kingdom. The model was first developed in 1995 and has been calibrated annually using consumer transaction behavioral data. Corroboration with other industry data sources has demonstrated the model to be highly accurate, for instance there is a 0.97 correlation between Retail Footprint and the turnover figures published by the ODPM.

2.11 CACI will use the most recent retail audit data to update the Retail Footprint with the most accurate and current information and provide for Barry and each of the 4 District Centres of the Vale of Glamorgan as identified in VGC Council Town Centres Strategy 2007-2012:

- Barry Town Centre & High Street/Broad St
- Penarth Town Centre
- Cowbridge Town Centre
- Llantwit Major Town Centre

This data will enable the production of maps showing the following:

[9] The capacity for expansion based on market potential

- Baseline catchment map
- Baseline Shopper flows map
- Baseline Market size of the town in terms of Comparison Goods

Analysis of baseline scenario of CACI's Provision grocery goods model

2.12 A similar model is available for convenience goods shopping. ProVision, CACI's grocery retail gravity model, has been used to assess all grocery stores over 4,000 sq feet and defines catchment and turnover. The analysis of smaller stores is not included within the methodology, as this would eschew the grocery retail gravity model.

Floorspace Needs & Quantitative Needs Assessment

2.13 Capacity and impact assessment has been conducted on retail floorspace needs in Barry, Penarth, Cowbridge and Llantwit Major for 2007, 2012, 2017 and 2026.

- Capacity Analysis
- Leakage Analysis
- Impact Analysis of Specific Proposals

CACI's gravity modeling approach can cause concern if the results are not reported in a clear and transparent way. In particular, there can be problems in analysing a model that by its nature can dynamically redefine catchment area's dependent upon different development scenarios.

CACI have addressed this issue by formulating a method of reporting the outcomes of their modeling on a set of agreed planning zones. This can be defined and agreed upon at the outset of this stage of analysis. The planning zones will be used for comparison, convenience and bulky goods analysis to provide consistency and comparability of results.

2.14 In ensuring that all data reflects the current market conditions, CACI have used comprehensive audit data on the current retail provision to identify the strength of multiple and independent retail in the Council's key centres.

2.15 CACI have used these sources to deliver quantitative information on comparison and convenience goods for the town centres and their hinterland for the years 2007, 2012, 2017 and 2026 including:

- Balance of Trade across each planning zone
- Expenditure growth inside each planning zone
- Population Growth inside each planning zone
- Population and Expenditure growth outside of planning zones
- Growth in operating costs for retailers.
- Impacts of internet on retail centre sales
- Impacts on retail market size and Balance of Trade due to new developments.
- Estimates of retail floorspace needs for each zone, based upon capacity assessment using estimates of centre turnover

Definition of Vale of Glamorgan's planning zones

2.16 To allow consistency between this retail study and previous retail study work, CACI have adopted a retail study zone structure that incorporates previous definitions, while extending the structure to take into account a wider area than has previously been analysed. The wider area has been defined based upon CACI's understanding of retail centre and supermarket catchments.

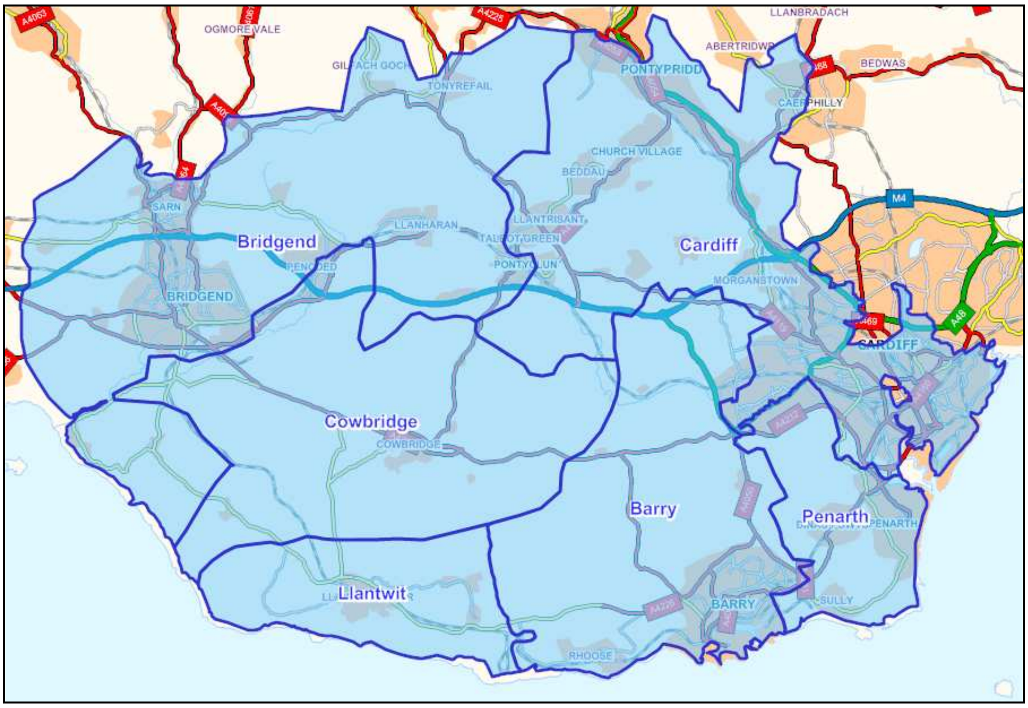
2.17 Figure 3 provides a definition of each of the six retail study zones, which are defined by grouping together postcode sectors areas.

Fig. 3 Postcode Sector Definition of Zones

Postcode Sector	Zone	Postcode Sector	Zone
CF 5 6	Barry	CF11 7	Cardiff Fringe
CF62 3	Barry	CF11 8	Cardiff Fringe
CF62 5	Barry	CF11 9	Cardiff Fringe
CF62 6	Barry	CF14 2	Cardiff Fringe
CF62 7	Barry	CF14 7	Cardiff Fringe
CF62 8	Barry	CF15 7	Cardiff Fringe
CF62 9	Barry	CF15 8	Cardiff Fringe
CF63 1	Barry	CF15 9	Cardiff Fringe
CF63 2	Barry	CF24 0	Cardiff Fringe
CF63 3	Barry	CF24 1	Cardiff Fringe
CF63 4	Barry	CF24 2	Cardiff Fringe
CF63 9	Barry	CF24 4	Cardiff Fringe
CF31 1	Bridgend Fringe	CF24 5	Cardiff Fringe
CF31 2	Bridgend Fringe	CF38 1	Cardiff Fringe
CF31 3	Bridgend Fringe	CF38 2	Cardiff Fringe
CF31 4	Bridgend Fringe	CF72 8	Cardiff Fringe
CF31 5	Bridgend Fringe	CF95 1	Cardiff Fringe
CF31 9	Bridgend Fringe	CF99 1	Cardiff Fringe
CF32 0	Bridgend Fringe	CF35 5	Cowbridge
CF72 9	Bridgend Fringe	CF71 7	Cowbridge
CF 5 1	Cardiff Fringe	CF61 1	Llantwit Major
CF 5 2	Cardiff Fringe	CF61 2	Llantwit Major
CF 5 3	Cardiff Fringe	CF62 4	Llantwit Major
CF 5 4	Cardiff Fringe	CF 5 5	Penarth
CF10 2	Cardiff Fringe	CF64 1	Penarth
CF10 4	Cardiff Fringe	CF64 2	Penarth
CF10 5	Cardiff Fringe	CF64 3	Penarth
CF11 0	Cardiff Fringe	CF64 4	Penarth
CF11 6	Cardiff Fringe	CF64 5	Penarth

2.18 Figure 4 presents these retail study zone definitions on a base map of the area.

Fig.4 Retail Study Zones



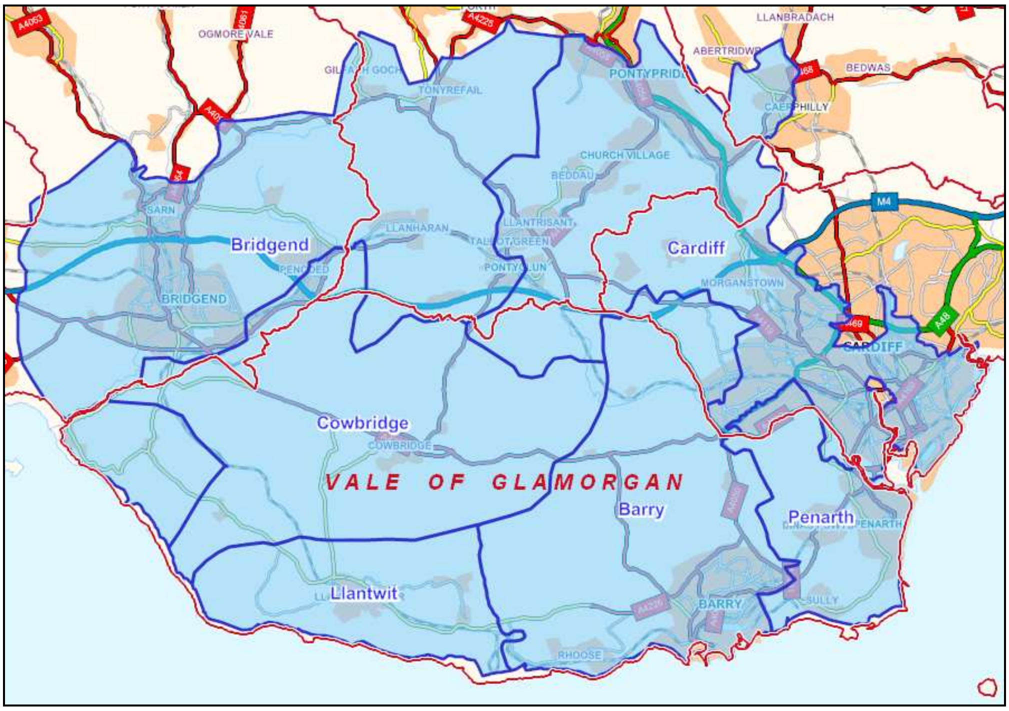
2.19 For the purposes of assessing capacity for convenience floorspace, CACI have grouped together the following postcode sectors into six study zones that broadly reflect distinct areas in Vale of Glamorgan trading circuit. The postcodes all comprise the primary, secondary and tertiary catchment areas of the Vale's 6 Retail Footprint Centres. The definition and rationale for each study zone is as follows:

1. Barry – the town areas of Barry, Rhoose, Wenvoe, Bonvilston and Peterston-Super-Ely. This zone separates the town area of Barry and its rural surround from those of Penarth, Llantwit Major and Cowbridge. In line with InSite[10] findings this includes Culverhouse Cross.
2. Bridgend and External Fringe – those parts of VOG's Retail Footprint Centre catchments that fall outside the administrative area of the council and are close to the town of Bridgend; covering Bridgend itself, Brynna, Tonyrefail and Gilfach Goch. Owing to problematic postcode geography, the VOG town of St. Bride's Major is also included in this zone.
3. Cardiff and External Fringe – those parts of VOG's Retail Footprint Centre catchments that fall outside the administrative area of the council and are close to the city of Cardiff; including parts of Cardiff City, Pontypridd, Llantrisant and Church Village.

[10] InSite is a local market analysis system that helps find target customers and target locations. It is consumer data and location planning models, developed to provide decision-making support. It uses mapping, data manipulation and analysis tools to understand consumers and business locations. InSite users are supported on both software usage and business applications.

4. Cowbridge – the town area of Cowbridge, and surrounding rural environs of St. Hilary, Wick, Treoes and Ystradowen. This zone separates the town area of Cowbridge from Llantwit Major.
5. Llantwit Major – the town area of Llantwit Major, and the coastal area stretching from St. Donats to St. Athan.
6. Penarth – the town areas of Penarth, Dinas Powys, Llandough and Sully.

Fig. 5 Study Zones in relation to Vale of Glamorgan Administrative Boundary



3.0 Convenience Goods Assessment

Convenience Goods Market Analysis

3.1 Using Census population projections and the results of the Expenditure and Food Survey (EFS) based expenditure data; estimates of 2007 convenience goods expenditure for each of the planning zones have been derived. Figure 6 summarises the key statistics.

Fig. 6 Study Area Zone Statistics 2007

Planning Zone	Residential Population	Resident Spend per capita (per annum)	Resident Convenience Spend (£'s per annum)
Barry	57,530	£2,419	£123.2m
Bridgend	89,251	£2,498	£192.2m
Cardiff	241,392	£2,491	£527.4m
Cowbridge	14,497	£2,868	£33.3m
Llantwit Major	14,627	£2,404	£29.4m
Penarth	44,671	£2,416	£94.9m
Total	**461,698**	**£2,485**	**£1.0006bn**

3.2 In terms of estimating growth in residential spend, CACI will only apply assumptions of population growth. This is because the current trends on convenience spend per capita are complex, due to food prices deflating in many areas, mainly attributable to supermarkets finding more ways to reduce costs from economies of scale.

3.3 In addition to housing growth specifications provided by the council for the area, CACI will apply the trend-based projections of population growth for the study area as a whole, which has not been disaggregated by study zone, as:

- 2007-2011: 2.4%
- 2011-2016: 2.8%
- 2016-2021: 5.6%

3.4 To take into account home delivery sales channels (otherwise known as Special Forms of Trading) it has been assumed for this study that in the base year of 2007, 3.86% of all retail sales take place over home delivery sales channels for convenience goods.

3.5 It is assumed that this figure of 3.86% increases by 1% per year to 2016, after which it is assumed that the market will stabilise around this level of impact. The effect of increases in home delivery sales will need to be monitored over the Development Plan period as more research becomes available in order to plan for their effects.

Fig. 7: Impact of Home Delivery on Residential Spend 2007-2021

Study Zone	2007 Resident Spend (exc. Home Delivery)	2012 Resident Spend (exc. Home Delivery)	2017 Resident Spend (exc. Home Delivery)	2026 Resident Spend (exc. Home Delivery)
Barry	£123,219,183	£140,833,212	£144,222,264	£150,060,494
Bridgend Fringe	£192,249,414	£219,731,228	£225,018,905	£234,127,846
Cardiff Fringe	£527,459,808	£602,859,530	£617,366,918	£642,358,413
Cowbridge	£33,327,180	£38,091,258	£39,007,898	£40,586,968
Llantwit Major	£29,461,054	£33,672,475	£34,482,779	£35,878,669
Penarth	£94,940,719	£108,512,377	£111,123,650	£115,622,022

3.6 Residential base spend relates to the amount of consumer spend available in each zone, regardless of where it is spent. Fig: 7 summarises the impact of increased Home Delivery on Residential Spend available for supermarkets by study zone, and projected forward to 2012, 2017 and 2026. The fringe zones of Bridgend and Cardiff are for contextual purposes only; as defined in the introduction these zones are outside the administrative area of Vale of Glamorgan Council.

Fig. 8 Vale of Glamorgan Supermarkets and Annual Turnover Potential

Name	Size (sq. m.)	Postcode	Study Area	Annual Turnover Potential
Morrisons	3,160	CF63 4BA	Barry	£34,722,356
Waitrose	2,323	CF63 2PE	Barry	£28,298,583
Home Bargains (Netto)	920	CF63 4JP	Barry	£7,152,923
Tesco	1,795	CF62 8NX	Barry	£18,930,884
LIDL	915	CF63 1BP	Barry	£1,864,212
Iceland	374	CF63 4HP	Barry	£1,877,149
Marks & Spencer	8,734	CF 5 6YZ	Culverhouse Cross	£16,143,534
Tesco	4,722	CF 5 6XQ	Culverhouse Cross	£38,386,804
Somerfield	403	CF61 1XA	Llantwit	£13,862,253
Tesco	2,360	CF64 1SA	Penarth	£30,048,519
Aldi	650	CF 5 5NU	Penarth	£7,178,370
LIDL	2,657	CF 5 5TD	Penarth	£28,695,097

The Vale of Glamorgan's supermarkets were assessed relative to the defined study zone areas. CACI's ProVision model was used to identify annual turnover potential for each supermarket, as summarised in Fig. 8. Based on the spatial distribution of convenience expenditure, it has been assessed that Barry is supporting 65% of the Vale's convenience economy.

Fig. 9 Current and Anticipated Growth of Supermarket Spending

Study Zone	Turnover Potential 2007	Turnover Potential 2012	Turnover Potential 2017	Turnover Potential 2026
Barry	£141,687,694	£155,204,025	£150,314,041	£156,398,871
Bridgend	£220.667,069	£241,717,657	£234,101,904	£243,578,532
Cardiff	£514,688,124	£563,786,920	£546,023,792	£568,127,262
Cowbridge	£0	£0	£0	£0
Llantwit	£13,327,181	£14,598,530	£14,138,577	£14,710,918
Penarth	£63,377,372	£69,423,272	£67,235,696	£69,957,730
VoG Total	£218,392,247	£239,225,827	£231,688,584	£241,067,519

Fig. 9 summarises expenditure at supermarkets for current turnover potential, and those expected for 2012, 2017 and 2026 based on current population projections.

For each zone, the resident base-spend for convenience goods was measured in relation to the current and expected future performance of supermarkets in each area. This establishes whether there is a positive or negative balance of trade in or out of each study zone.

2007

3.7 Fig. 10 summarises the 2007 annual expenditure in each zone relative to the amount of supermarket floorspace. The annual expenditure relates to the total performance of the supermarkets in each zone, accounting for changes in performance over time caused by the increase of home delivery shopping. The annual trading density is a measure of how well each zone is performing relative to the amount of supermarket floorspace.

Fig. 10 Convenience Goods Spend at Supermarkets 2007

Study Zone	Annual Expenditure	Supermarket Floorspace Sq. M.	Supermarket Annual Trading Density per Sq. M.
Barry	£141,687,694	22,942	£6,424
Bridgend	£220,667,069	14,947	£15,357
Cardiff	£514,688,124	48,493	£11,040
Cowbridge	£0	0	£0
Llantwit	£13,327,181	403	£34,365
Penarth	£63,377,372	5,667	£11,632

3.8 The trading density is defined as an ideal supermarket performance, measured in expenditure per square metre. In this case, a figure of £7,500 is the average trading density of those zones within VGC local authority area[11]. Dividing the actual annual expenditure by the target trading density assesses capacity, indicating how much convenience capacity each zone could support. By subtracting the known convenience floorspace from the capacity, additional headroom supporting convenience retail is highlighted.

[11] Source: CACI

Fig. 11 Convenience Capacity and Headroom 2007

Study Zone	Target Trading Density	Capacity Sq. M.	Headroom Sq. M.
Barry	£7,500	19,650	-3,292
Bridgend	£7,500	30,604	15,657
Cardiff	£7,500	71,380	22,888
Cowbridge	£7,500	0	0
Llantwit	£7,500	1,848	1,445
Penarth	£7,500	8,790	3,122

3.9 By subtracting the annual turnover potential from the resident base spend, the balance of trade for each zone is established. Fig 12 summarises the current assessment of turnover potential relative to base residential spend. It shows that the study zone defined for Barry is the biggest market and strongest performing study zone in the Vale of Glamorgan. Its resident convenience market is currently worth £123.2m and it has a turnover potential of £141.7m, showing an in-flow of expenditure from the surrounding zones of £18.0m. However the current floorspace assessment for Barry shows that it is currently operating over-capacity, and that subsequently no additional convenience headroom is supported at this time in the study area. The current trading density (£6,424 per m²) is lower than the average for other zones in the Vale (the target trading density of £7,500 per m²).

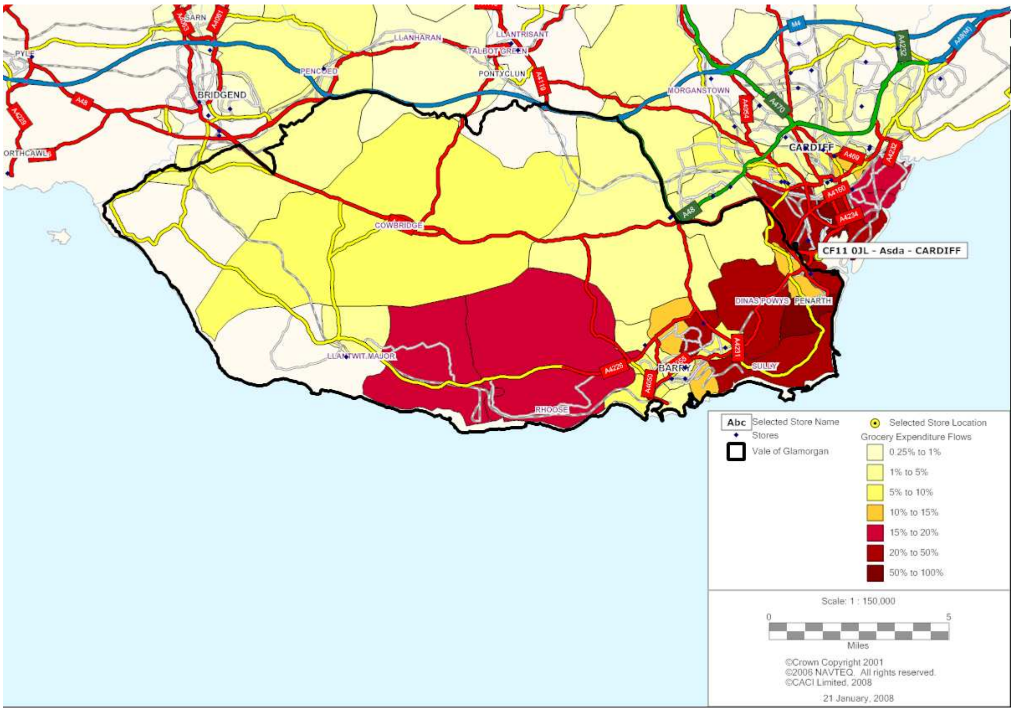
Fig. 12 Convenience Goods Balance of Trade 2007

Study Zone	Resident Spend per annum	Annual Turnover Potential	Balance of Trade
Barry	£123,219,183	£141,687,694	£18,468,511
Bridgend	£192,249,414	£220,667,069	£28,417,655
Cardiff	£527,459,808	£514,688,124	-£12,771,684
Cowbridge	£33,327,180	£0	-£33,327,180
Llantwit	£29,461,054	£13,327,181	-£16,133,873
Penarth	£94,940,719	£63,377,372	-£31,563,347

3.10 The Penarth study area has a resident convenience spend of £94.9m, and is losing £31.5m of this to Barry and Cardiff. With a trading density of £11,632 per m², Penarth currently supports the addition of 3,122m² of convenience floorspace, the highest supported by any zone. The catchment distribution of supermarkets in Cardiff and Barry suggests that the supported convenience floorspace needs to be developed as a single site to compete effectively with the surrounding towns. The amount of convenience floorspace supported in Penarth increases to 5,037m² by 2026. Analysis of ProVision catchment profile distribution shows that strong convenience representation in the west of Cardiff is having a detrimental effect on the market penetration of in-Borough convenience in the east of the Vale.

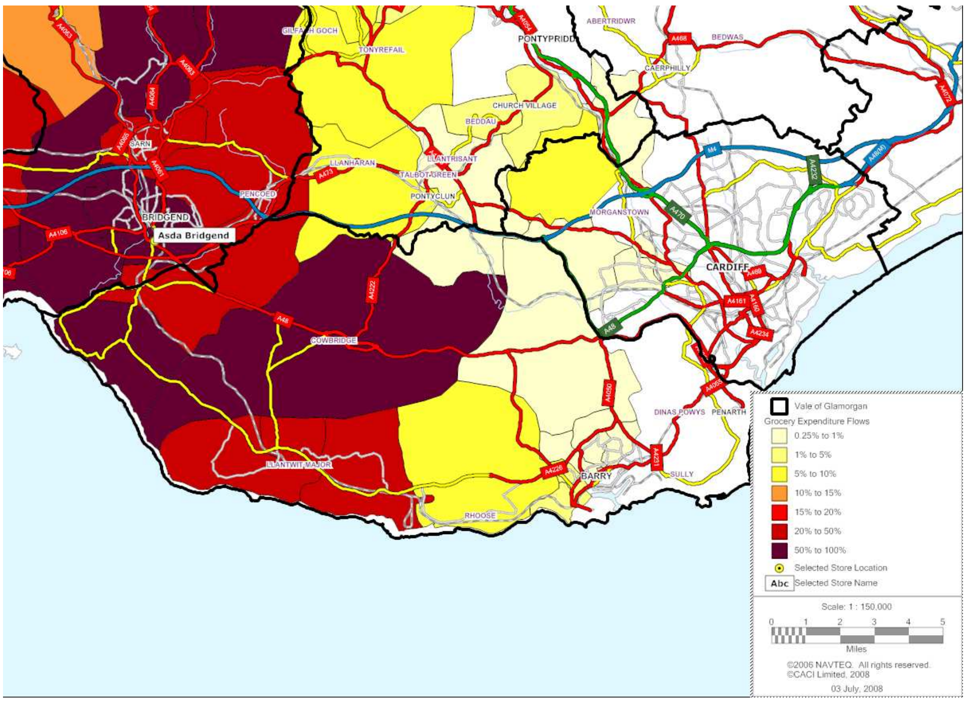
Culverhouse Cross falls within the Penarth Planning Zone and as such influences the convenience goods spend figures for both the zone and the town of Penarth.

Fig. 13 Grocery Expenditure Flows from Vale of Glamorgan to Asda, Cardiff



As Fig 13 demonstrates, there is severe leakage of grocery convenience expenditure from Penarth, Rhoose and St. Athan to the Asda in Cardiff, at the expense of both Penarth and Barry. Significantly, up to 50% of convenience shoppers from Rhoose and St. Athan are bypassing Barry and travelling nearly twice as far to avail of convenience provision in Cardiff.

Fig: 14 Grocery Expenditure Flows from Vale of Glamorgan to Asda, Bridgend



The impact of the new Asda in Bridgend may well have a large effect on the Vale. CACI have introduced the store into the data set to analyse the impact it will have of the Vale once in operation, as demonstrated in Fig 14.

3.11 In addition to responding to Penarth's own convenience headroom, extra retail provision in Penarth would reduce the flow of Glamorgan shoppers from the borough.

3.12 The Llantwit Major study area has a resident convenience market worth £29.4m. Of this, £16.1m is currently being leaked to other zones, the highest % leakage of any zone that has convenience floorspace. It also has the highest trading density of any zone (£34,365 per m²) and currently supports the addition of a mid sized supermarket in the order of 1,445m² such as a Tesco Metro. Under current population projections, this additional supported floorspace increases gradually to 1,848m² by 2026, which could support stores selling Household Goods & Gifts.

3.13 The two supermarkets within Cowbridge (Tesco Express, Spar) do not register as they fall below the ProVision threshold of 4,000 sq ft.

2012

3.14 A rise in annual expenditure going ahead to 2012 will contribute to higher trading densities across the Borough, equating to additional headroom (or a reduction in negative headroom) for each of the study areas, as shown in Fig 15.

Fig. 15: Convenience Goods Spend at Supermarkets 2012

Study Zone	Annual Expenditure	Supermarket Floorspace Sq.M	Supermarket Annual Trading Density per Sq.M
Barry	£155,204,025	22,942	£7,342
Bridgend	£241,717,657	14,947	£17,552
Cardiff	£563,786,920	48,493	£12,618
Cowbridge	£0	0	£0
Llantwit	£14,598,530	403	£39,277
Penarth	£69,423,272	5,667	£13,295

3.15 Barry's trading density in 2012 is still below the benchmark of £7,500, but has improved from 2007. Population increases in line with housing projections have also led to higher trading densities in the Llantwit Major and Penarth study areas. The increases in available headroom, as shown in Fig 16, are proportional to these increases.

Fig. 16: Convenience Capacity and Headroom 2012

Study Zone	Target Trading Density	Capacity Sq.M	Headroom Sq.M
Barry	£7,500	22,459	-483
Bridgend	£7,500	34,978	20,032
Cardiff	£7,500	81,584	33,091
Cowbridge	£7,500	0	0
Llantwit	£7,500	2,113	1,709
Penarth	£7,500	10,046	4,379

Fig. 17: Convenience Balance of Trade 2012

Study Zone	Resident Spend per annum	Annual Turnover Potential	Balance of Trade
Barry	£140,833,212	£155,204,025	£14,370,813
Bridgend	£219,731,228	£241,717,657	£21,986,429
Cardiff	£602,859,530	£563,786,920	-£39,072,610
Cowbridge	£38,091,258	£0	-£38,091,258
Llantwit	£33,672,475	£14,598,530	-£19,073,945
Penarth	£108,512,377	£69,423,272	-£39,089,105

Although there is a significant increase in available resident convenience expenditure going ahead to 2012, this is offset against a predicted increase in the effect of home delivery services on all convenience retail, affecting the ability of individual stores to maintain existing market hold. The smaller relative increase in annual turnover potential against resident spend means that the balance of trade is not as healthy in 2012 as it is in 2007. Barry Town Centre & High Street/Broad St will lose £4 million of its inward balance of trade and without any further development; Penarth will see a significant £7.5 million added to its existing trade deficit.

2017

3.16 Fig 18 summarises the available residential base spend expected in 2017 against current floorspace provision. The trading density for Llantwit Major is expected to exceed £40,000 per square metre by 2017 without additional development.

Fig. 18 Convenience Goods Spend at Supermarkets 2017

Study Zone	Annual Expenditure	Supermarket Floorspace Sq. M	Supermarket Annual Trading Density per Sq. M.
Barry	£150,314,041	22,942	£7,519
Bridgend	£234,101,904	14,947	£17,974
Cardiff	£546,023,792	48,493	£12,922
Cowbridge	£0	0	£0
Llantwit	£14,138,577	403	£40,222
Penarth	£67,235,966	5,667	£13,615

3.17 Fig 19 shows how under the currently projected housing and population growth scenario, Barry will start to support additional convenience floorspace, but only an anticipated 58 m² by 2017.

Fig. 19 Convenience Capacity and Headroom 2017

Study Zone	Target Trading Density	Capacity Sq. M.	Headroom Sq. M.
Barry	£7,500	23,000	58
Bridgend	£7,500	35,820	20,874
Cardiff	£7,500	83,547	35,055
Cowbridge	£7,500	0	0
Llantwit	£7,500	2,163	1,760
Penarth	£7,500	10,288	4,621

3.18 The rate of increase in resident convenience spend between 2012 and 2017 will slow compared to the previous increment, however it is the fall in turnover potential that will more seriously affect the balance of trades into the various study zones. Barry Town Centre & High Street/Broad St's inward balance of trade will be reduced by a further £8 million and Penarth's trade deficit will increase by a further £4m. At this point the Vale will be leaking £97 million annually in convenience expenditure, 156% the current convenience leakage. The balances of trade for each study area are summarised in Fig. 20.

Fig. 20 Convenience Balance of Trade 2017

Study Zone	Resident Spend per annum	Annual Turnover Potential	Balance of Trade
Barry	£144,222,264	£150,314,041	£6,091,778
Bridgend	£225,018,905	£234,101,904	£9,082,999
Cardiff	£617,366,918	£546,023,792	-£71,343,126
Cowbridge	£39,007,898	£0	-£39,007,898
Llantwit	£34,482,779	£14,138,577	-£20,344,202
Penarth	£111,123,650	£67,235,966	-£43,887,684

2026

3.19 By 2026, the addition of a mid sized convenience store (e.g. Tesco Express) will be supported in Barry, with available headroom of 989 m². Fig 21 summarises the changes in trading densities relative to increased annual expenditure.

Fig. 21 Convenience Goods Spend at Supermarkets 2026

Study Zone	Annual Expenditure	Supermarket Floorspace Sq. M.	Supermarket Annual Trading Density per Sq. M.
Barry	£156,398,871	22,942	£7,823
Bridgend	£243,578,532	14,947	£18,702
Cardiff	£568,127,262	48,493	£13,445
Cowbridge	£0	0	£0
Llantwit	£14,710,918	403	£41,851
Penarth	£69,957,730	5,667	£14,166

3.20 Fig 22 shows that headroom in Penarth has opened to 5,037 sq m., due to an increase in available resident expenditure against existing convenience floorspace provision.

Fig. 22 Convenience Capacity and Headroom 2026

Study Zone	Target Trading Density	Capacity Sq. M.	Headroom Sq. M.
Barry	£7,500	23,931	989
Bridgend	£7,500	37,270	22,324
Cardiff	£7,500	86,929	38,437
Cowbridge	£7,500	0	0
Llantwit	£7,500	2,251	1,848
Penarth	£7,500	10,704	5,037

Fig. 23 Convenience Balance of Trade 2026

Study Zone	Resident Spend per annum	Annual Turnover Potential	Balance of Trade
Barry	£150,060,494	£156,398,871	£6,338,378
Bridgend	£234,127,846	£243,578,532	£9,450,686
Cardiff	£642,358,413	£568,127,262	-£74,231,152
Cowbridge	£40,586,968	£0	-£40,586,968
Llantwit	£35,878,669	£14,710,918	-£21,167,751
Penarth	£115,622,022	£69,957,730	-£45,664,292

The assessment of future performance against competing centres can be summarised as follows:

- Barry Town Centre & High Street/Broad St currently has an appealing convenience offer which needs to be reinforced to avoid loss of the existing inward balance of trade.

- As no additional headroom is currently supported in Barry, the range and quality of the current convenience offer should be examined closely. For instance, CACI's Retail Locations database shows there is no representation of Health Food Convenience in the town.
- The additional housing development will not place an immediate demand on convenience provision in Barry. Over time, it will reduce the current over-trading in the town and start to generate moderate convenience headroom from 2017 onwards.
- Penarth is the convenience expenditure front line for the Vale as a whole. Penarth's headroom grows steadily across all of the years and supports the addition of a large supermarket to shore up the Vale's retail offer.
- Cowbridge is largely defenceless against the pull of Bridgend, and currently has no means of holding onto any of its resident convenience spend and has no convenience headroom. Because of the rural nature of Cowbridge, it is more difficult to prevent leakage from Bridgend than it is for Cardiff. (see Fig 24).

Fig. 24 Distribution of convenience supermarket spend from each of the study zones in the Vale of Glamorgan to the supermarkets across the Borough

Postcode/ Name / Town	Barry	Cowbridge	Llantwit	Penarth	Grand Total	% Overall Supermarket Spend
CF64 1SA - Tesco – CARDIFF	0.33%	0.00%	0.00%	99.67%	100.00%	9.46%
CF31 3XX - Lidl - BRIDGEND	0.00%	95.27%	4.73%	0.00%	100.00%	0.20%
CF72 8RP - Aldi - LLANTRISANT	0.00%	100.00%	0.00%	0.00%	100.00%	0.01%
CF23 8NL - Asda – CARDIFF	0.00%	63.93%	0.00%	36.07%	100.00%	0.07%
CF11 0JR - Aldi – CARDIFF	0.00%	0.00%	0.00%	100.00%	100.00%	0.19%
CF14 3AT - Tesco Extra – CARDIFF	37.37%	0.00%	2.49%	60.14%	100.00%	2.12%
CF10 2BJ - Sainsbury's Central - CARDIFF	0.00%	0.00%	0.00%	100.00%	100.00%	0.18%
CF14 5EP - Morrisons – CARDIFF	0.00%	0.00%	0.00%	100.00%	100.00%	0.03%
CF31 3SQ - Tesco Extra - BRIDGEND	1.63%	73.98%	24.38%	0.00%	100.00%	8.68%
CF10 2XG - Marks & Spencer - CARDIFF	0.00%	0.00%	0.00%	100.00%	100.00%	0.12%
CF 5 6YZ - Marks & Spencer - CARDIFF	79.49%	4.50%	1.48%	14.54%	100.00%	4.82%
CF63 4BA - Morrisons – BARRY	89.79%	0.48%	3.91%	5.82%	100.00%	12.19%
CF24 4HN - Tesco Extra - CARDIFF	5.68%	0.00%	0.00%	94.32%	100.00%	0.52%
CF 5 5NU - Aldi – CARDIFF	0.00%	0.00%	0.00%	100.00%	100.00%	1.25%
CF11 0JL - Asda – CARDIFF	27.26%	3.04%	3.91%	65.79%	100.00%	15.86%
CF72 8RB - Tesco Extra - PONTYCLUN	36.23%	56.12%	6.10%	1.55%	100.00%	0.93%
CF63 2PE - Waitrose – BARRY	66.62%	0.58%	3.47%	29.33%	100.00%	9.36%
CF63 4JP - Home Bargains (Netto) – BARRY	96.26%	0.00%	0.67%	3.07%	100.00%	2.51%
CF72 8RB - Marks & Spencer - TALBOT GREEN	0.00%	100.00%	0.00%	0.00%	100.00%	0.02%

Postcode/ Name / Town	Barry	Cowbridge	Llantwit	Penarth	Grand Total	% Overall Supermarket Spend
CF14 7EW - Asda Wal-Mart Supercentre – CARDIFF	44.53%	26.48%	8.45%	20.55%	100.00%	3.99%
CF83 3SX - Asda - CAERPHILLY	0.00%	100.00%	0.00%	0.00%	100.00%	0.01%
CF31 4AP - Tesco - BRIDGEND	0.00%	80.19%	19.81%	0.00%	100.00%	1.28%
CF11 9AN - Tesco Metro - CARDIFF	0.00%	0.00%	0.00%	100.00%	100.00%	0.10%
CF62 8NX - Tesco – BARRY	93.03%	0.57%	5.95%	0.45%	100.00%	6.67%
CF 5 6XQ - Tesco – CARDIFF	59.82%	8.81%	7.95%	23.43%	100.00%	8.53%
CF63 1BP - LIDL – BARRY	77.39%	0.00%	2.60%	20.02%	100.00%	0.66%
CF 5 5TD - LIDL – CARDIFF	0.50%	0.00%	0.00%	99.50%	100.00%	3.33%
CF24 3LH - Tesco Metro - CARDIFF	0.00%	0.00%	0.00%	100.00%	100.00%	0.02%
CF61 1XA - Somerfield - LLANTWIT MAJOR	0.00%	0.00%	100.00%	0.00%	100.00%	5.09%
CF63 4HP - Iceland – BARRY	100.00%	0.00%	0.00%	0.00%	100.00%	0.66%
CF32 9ST - J Sainsbury - BRIDGEND	0.00%	85.68%	14.32%	0.00%	100.00%	1.16%
	43.35%	**11.90%**	**10.68%**	**34.07%**	**100.00%**	**100.00%**

Source: ProVision

The recently opened Asda in Bridgend is not shown in this table.

Supermarket Catchment Maps

Fig 24.1: Somerfield - Llantwit

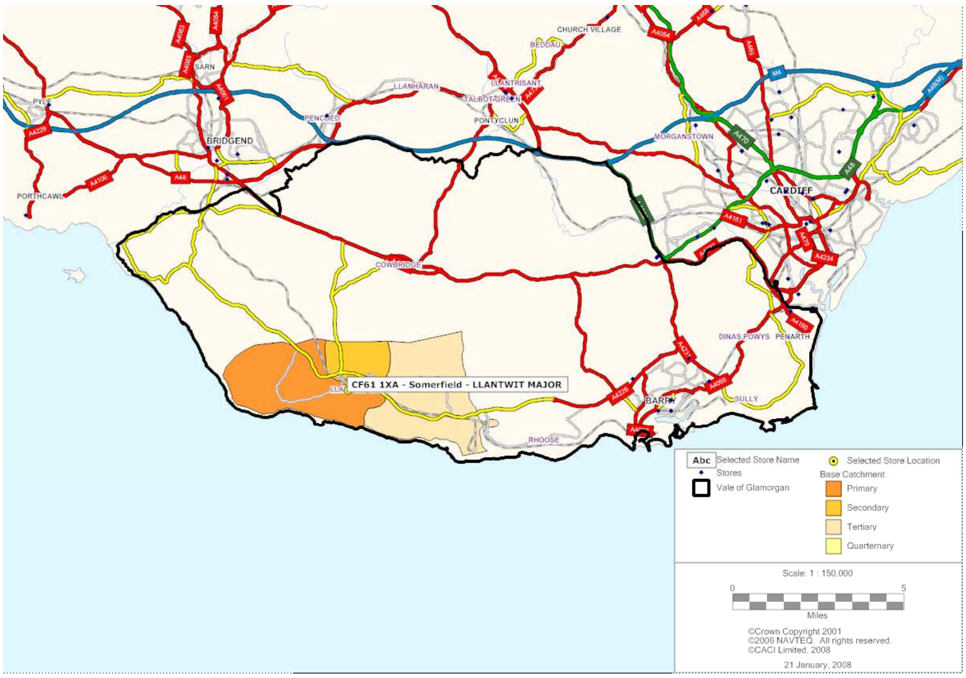


Fig 24.2: Tesco - Barry

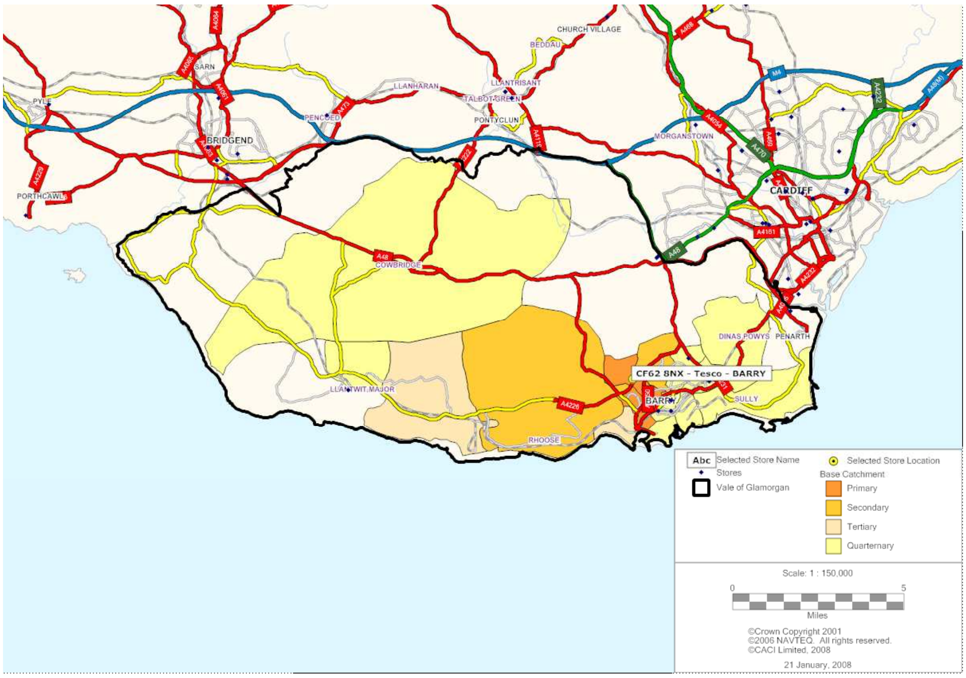


Fig 24.3: Morrisons - Barry

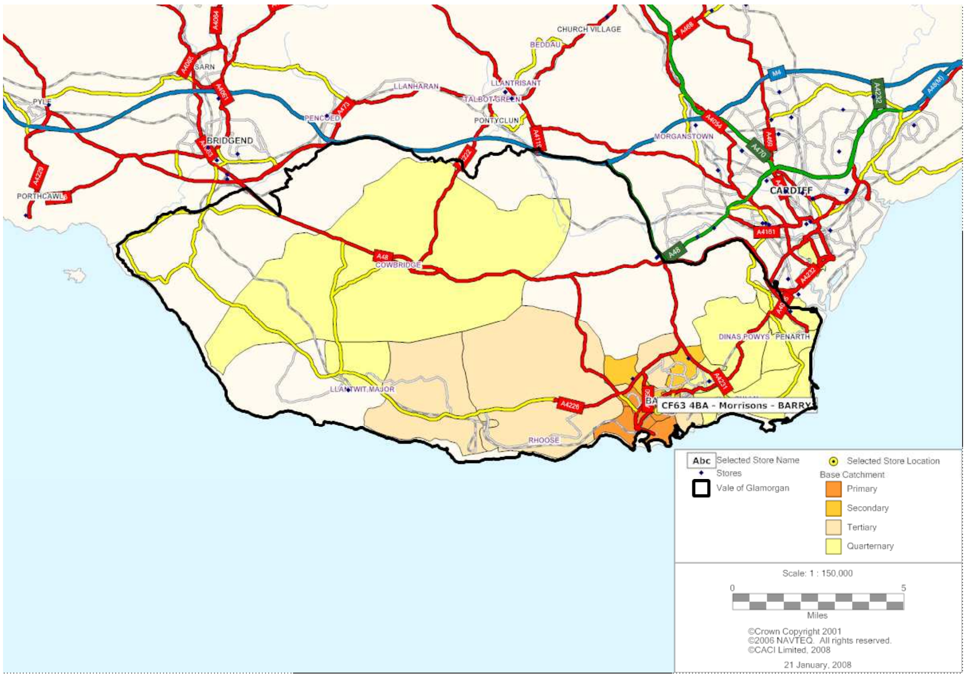


Fig 24.4: Iceland - Barry

Fig 24.5: Home Bargain (Netto) - Barry

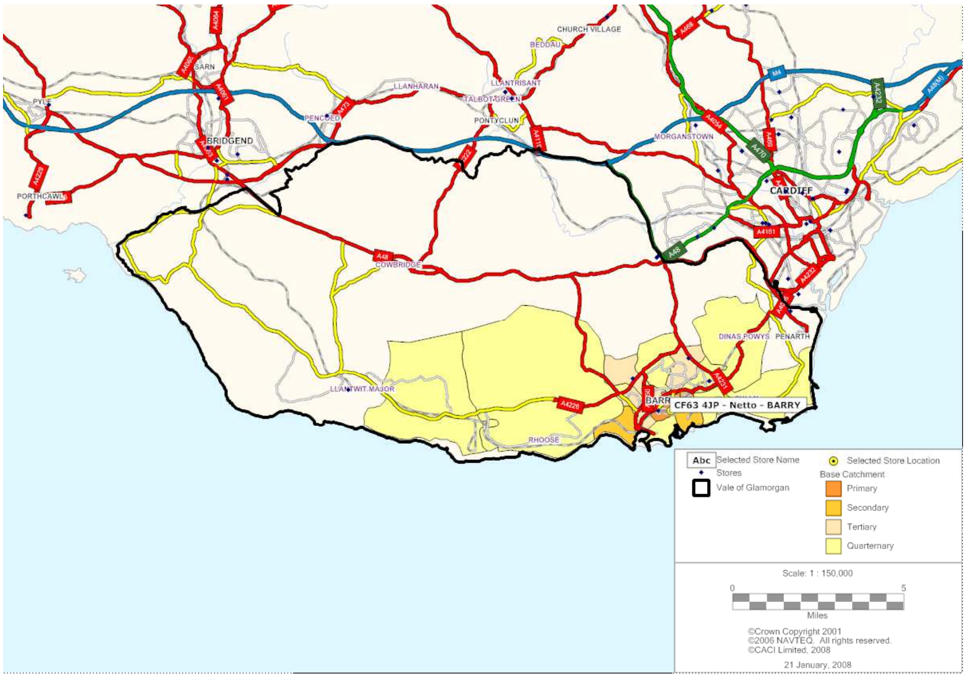


Fig 24.6: Waitrose - Barry

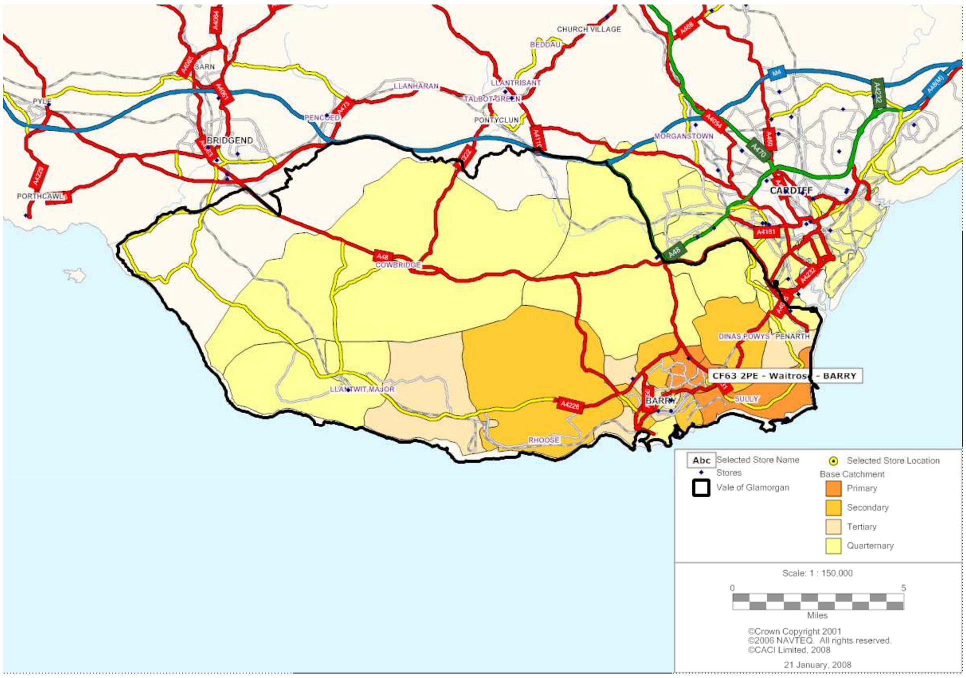


Fig 24.7: Lidl - Barry

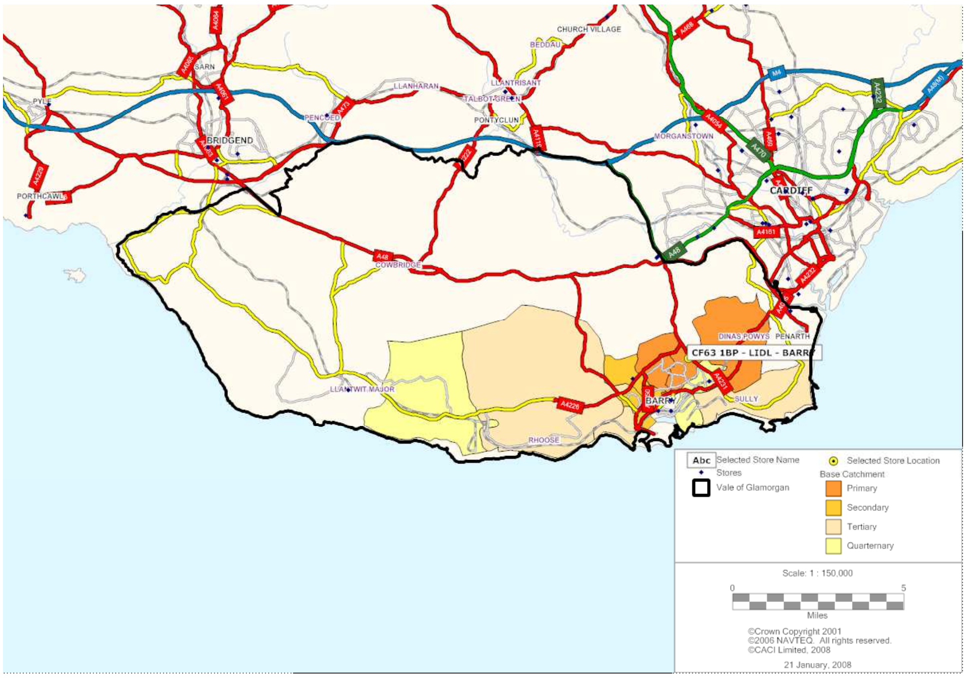


Fig 24.8: Tesco – Penarth

Fig 24.9: Tesco - CF

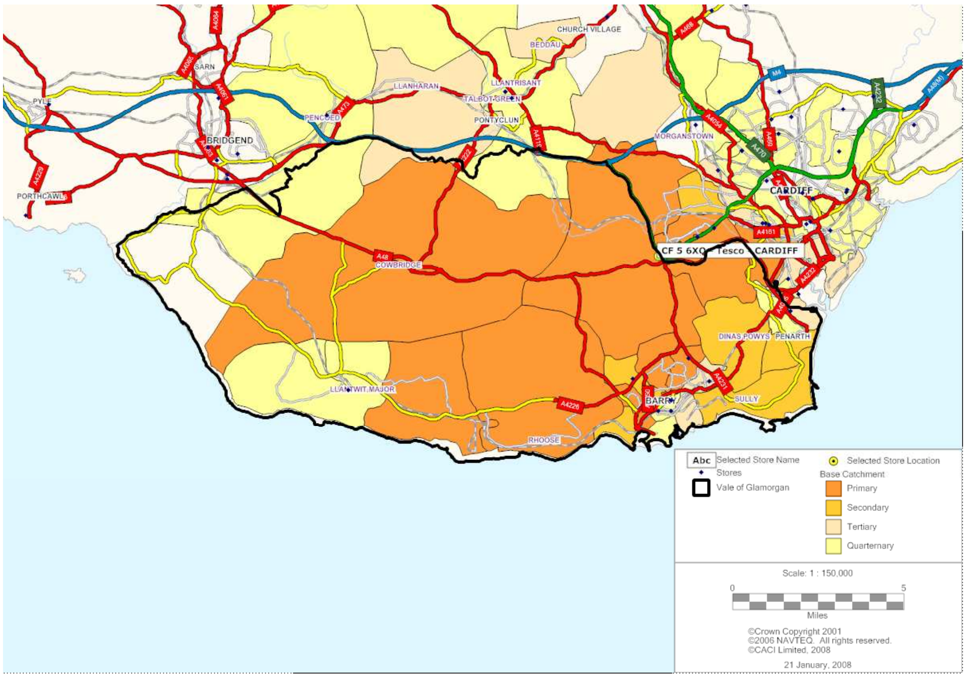


Fig 24.10: Marks & Spencer - Cardiff

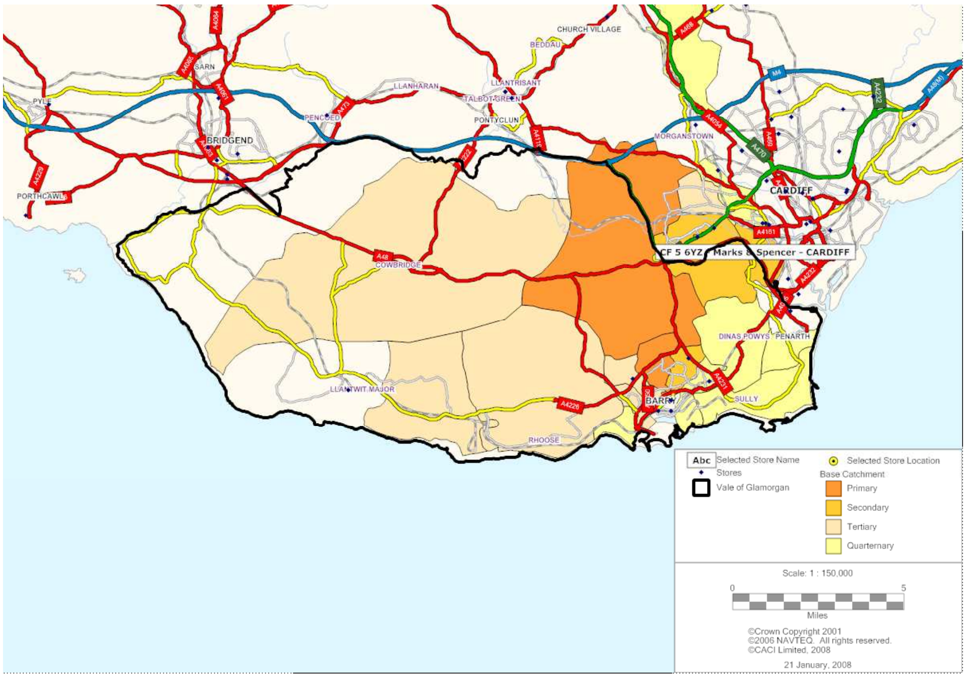


Fig 24.11: Asda - Cardiff

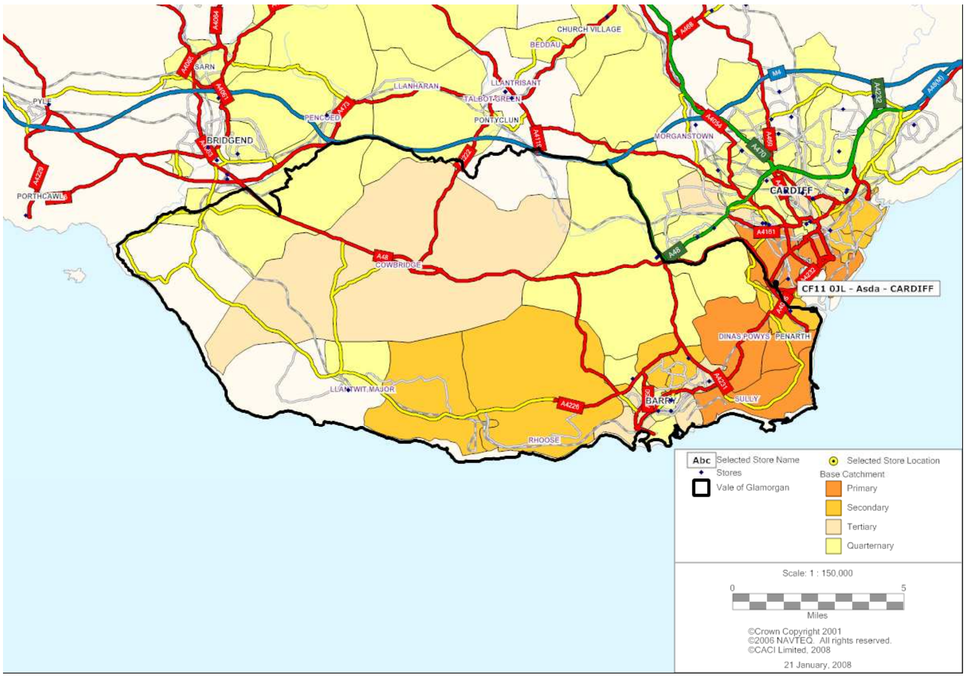


Fig 24.12: Tesco Extra - Bridgend

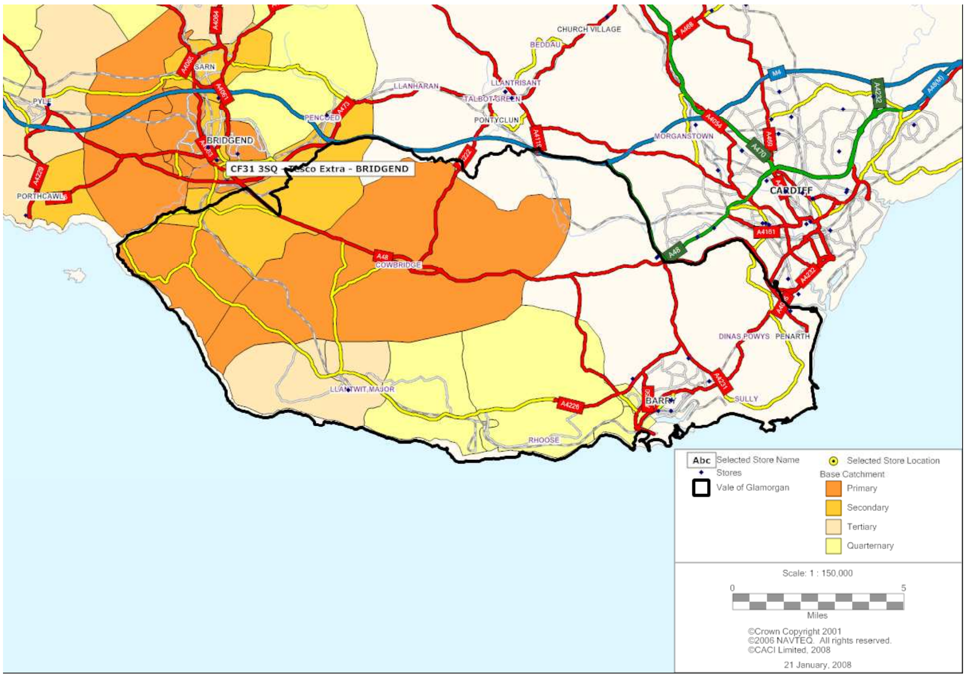


Fig 24.13: Asda Wal-Mart Superstore - Cardiff

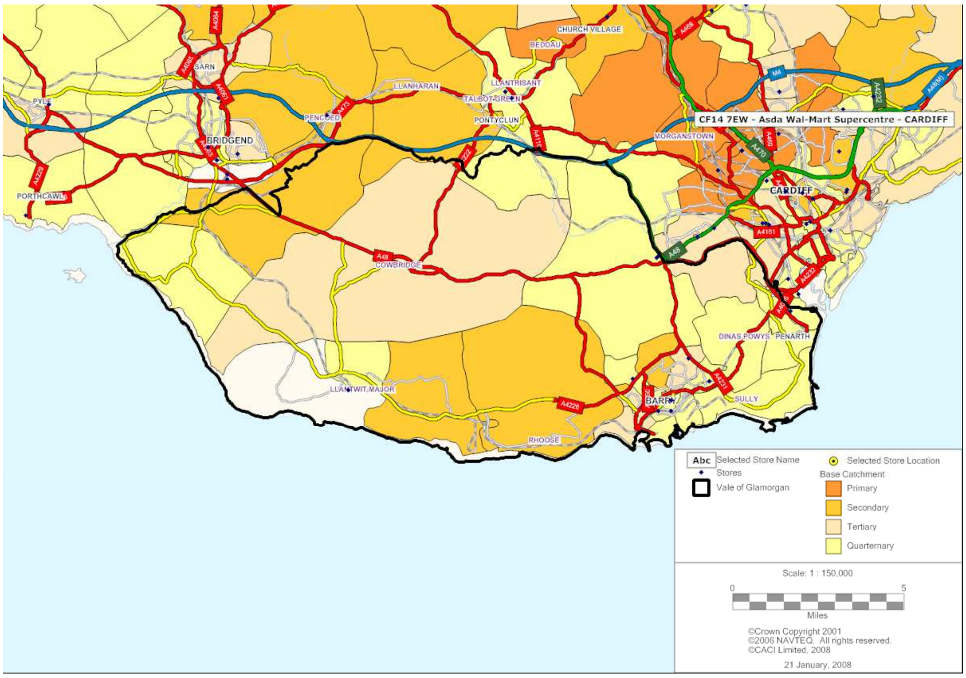


Fig 24.14: Lidl – Cardiff

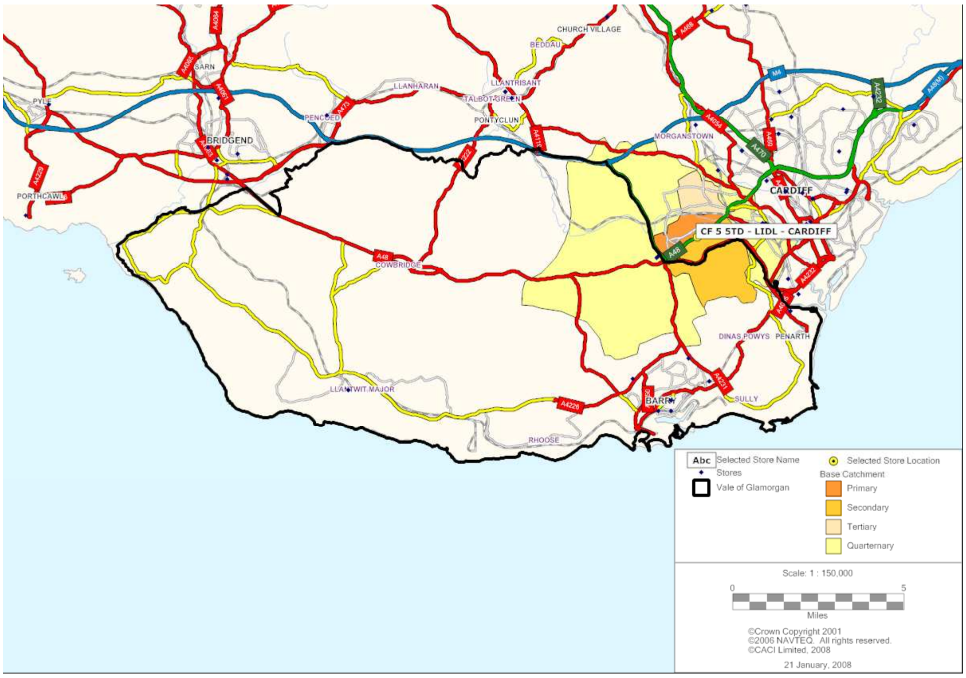


Fig 24.15: Tesco Extra – Cardiff

Fig 24.16: Tesco – Bridgend

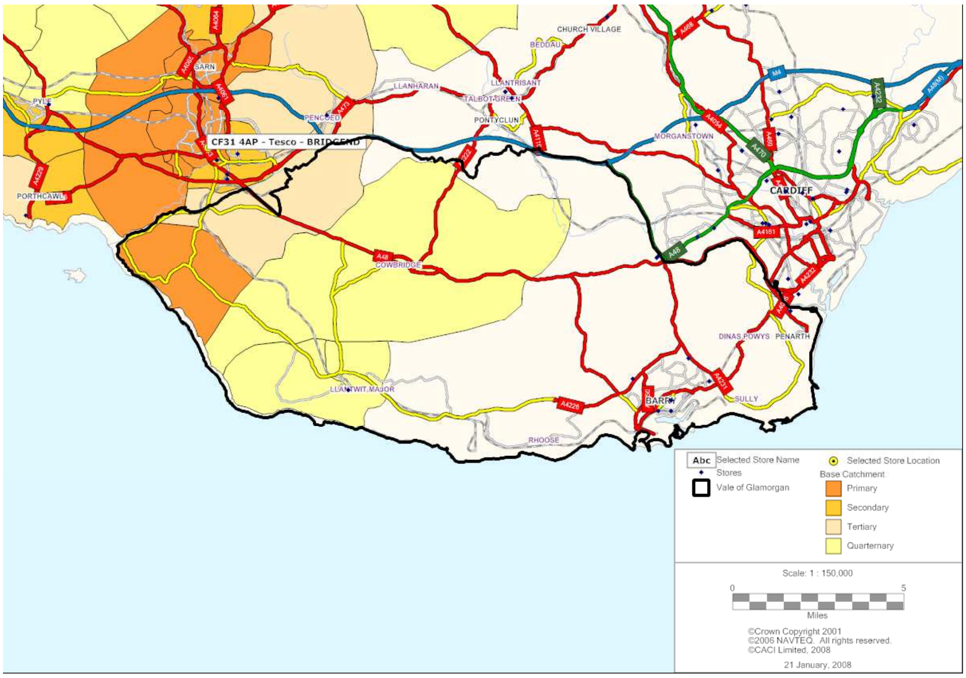
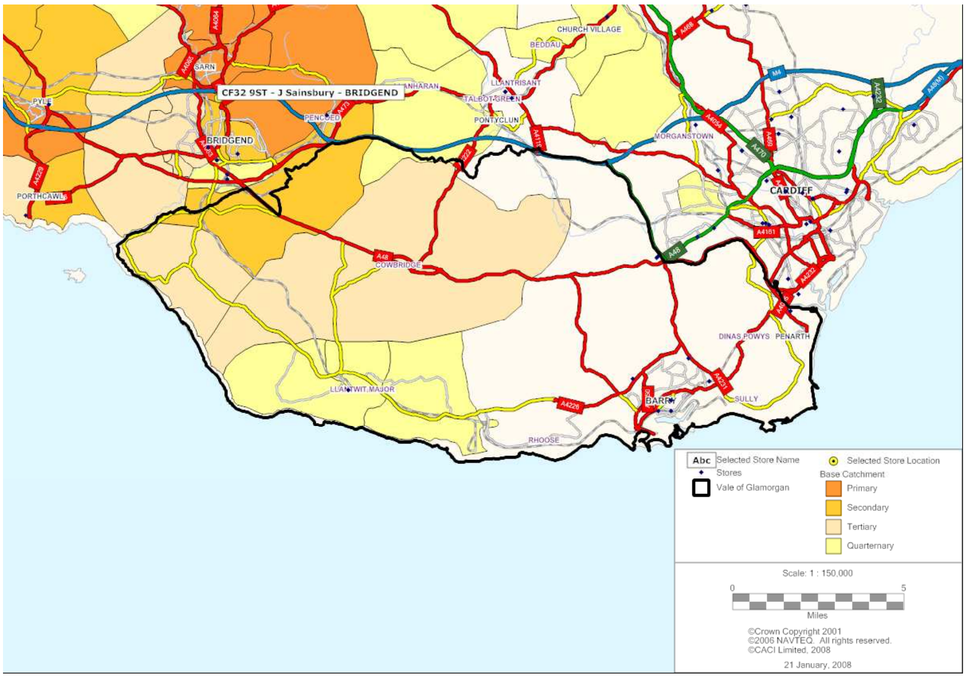


Fig 24.17: Sainsbury's - Bridgend



FLOW MAPS

Fig 25.1: Somerfield - Llantwit

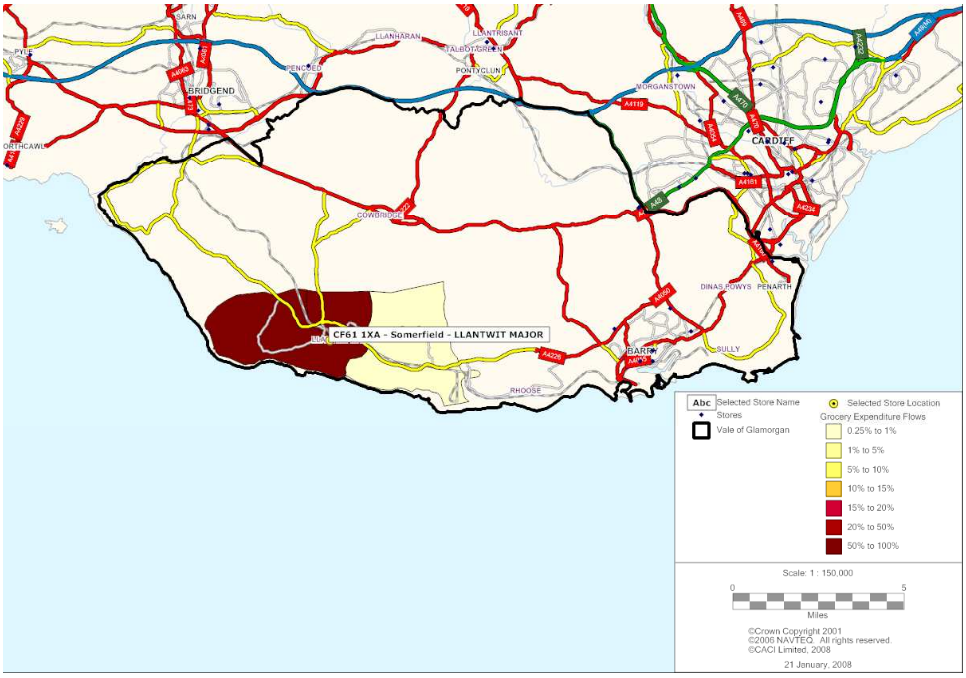


Fig 25.2: Tesco - Barry

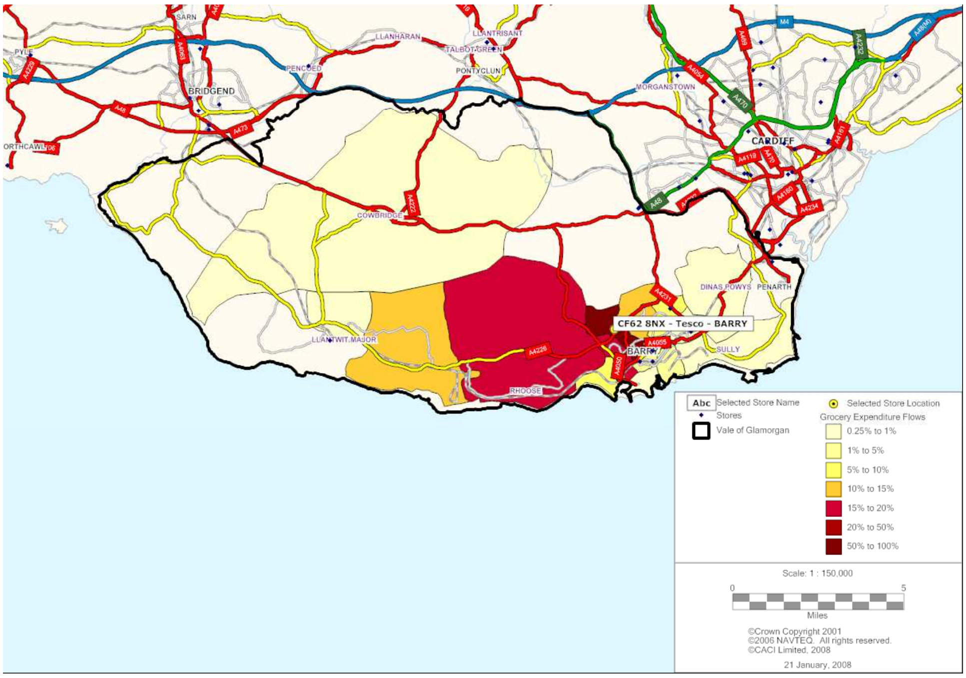


Fig 25.3: Morrisons - Barry

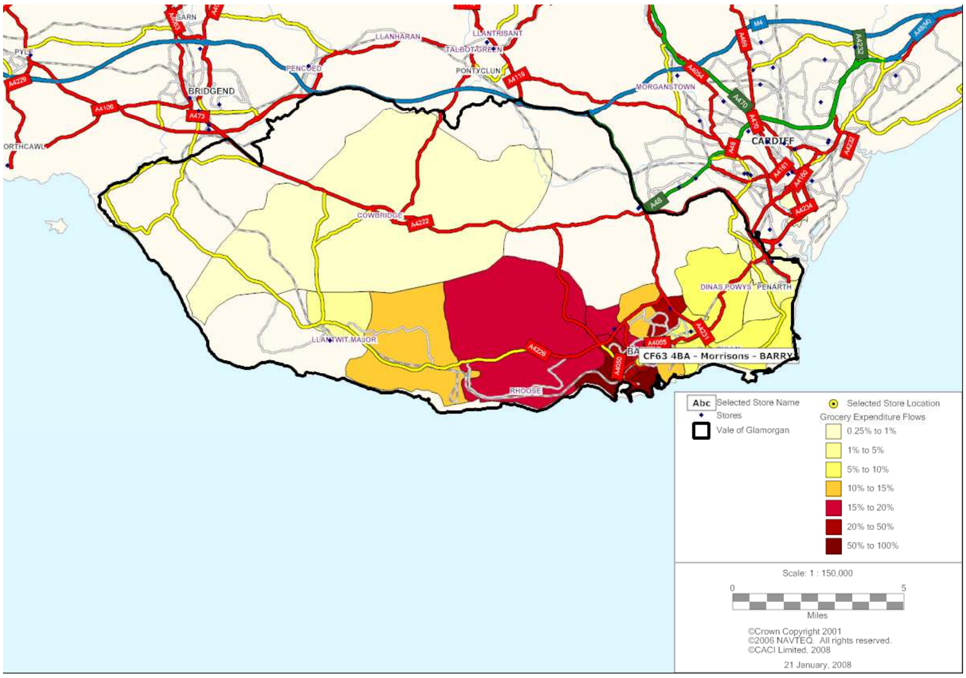


Fig 25.4: Iceland - Barry

Fig 25.5: Home Bargain (Netto) - Barry

Fig 25.6: Waitrose - Barry

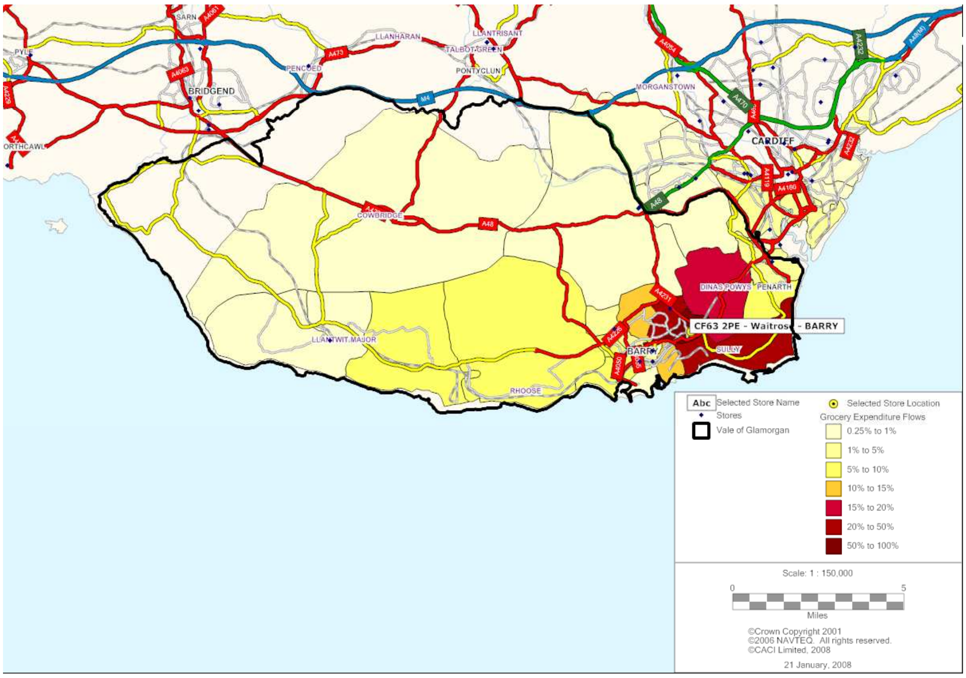


Fig 25.7: Lidl - Barry

Fig 25.8: Tesco – Penarth

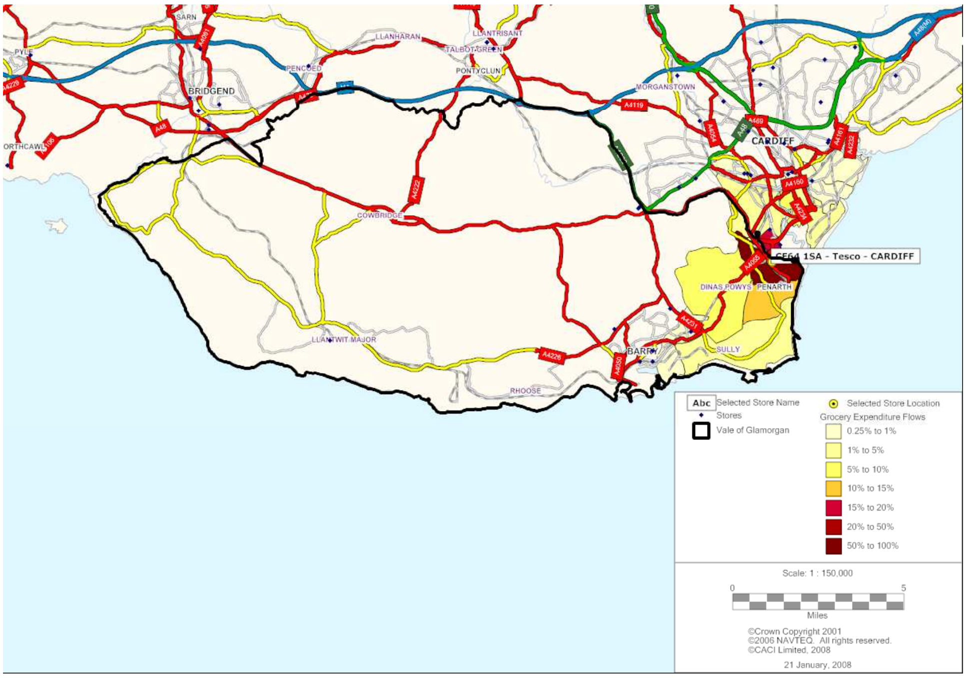


Fig 25.9: Tesco - Cardiff

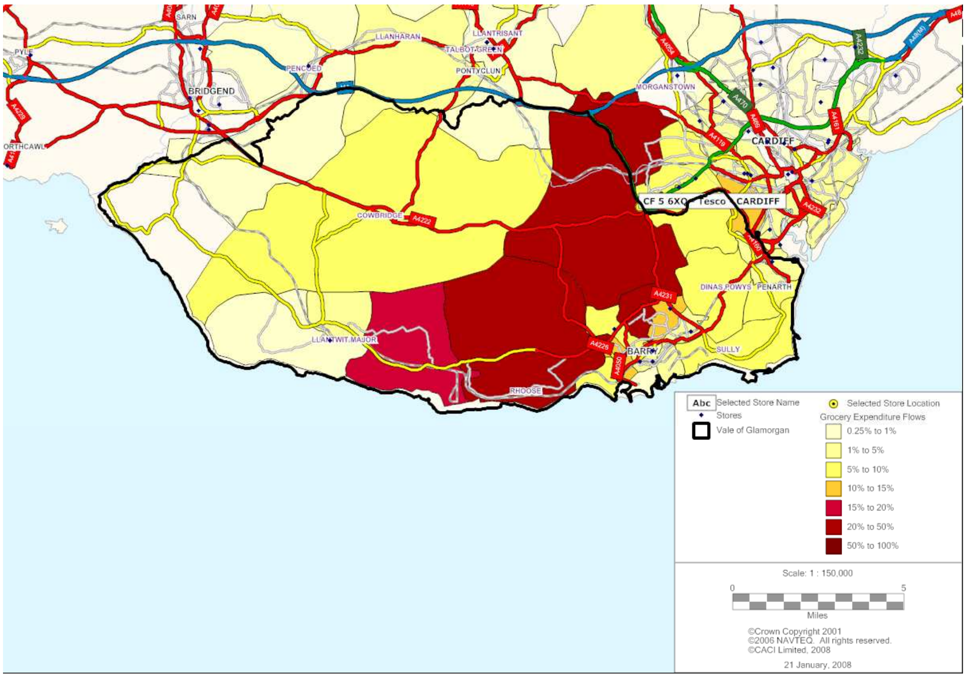


Fig 25.10: Marks & Spencer - Cardiff

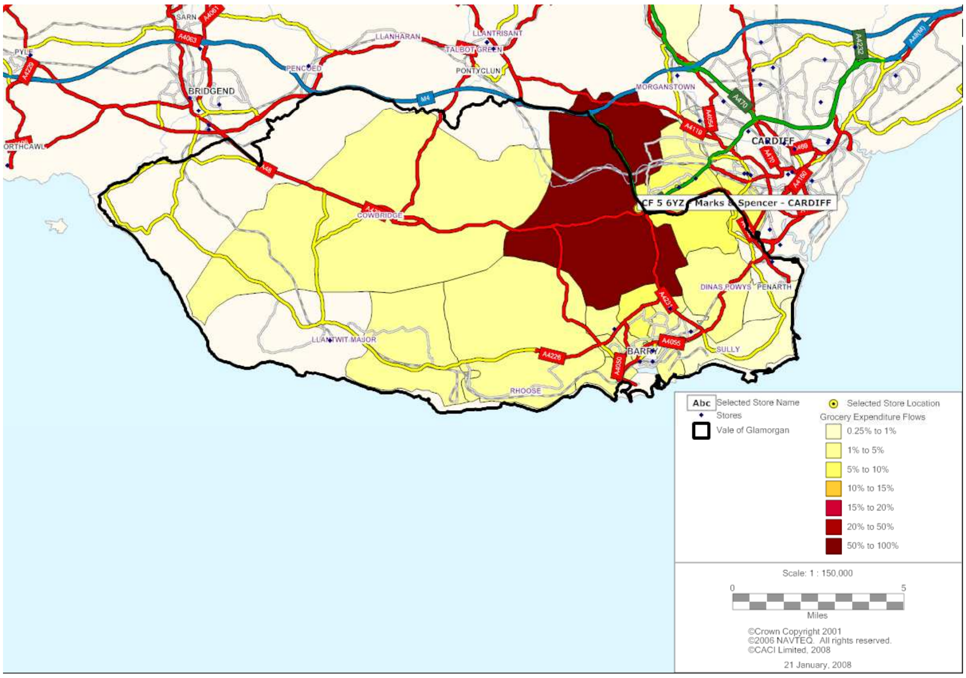


Fig 25.11: Asda - Cardiff

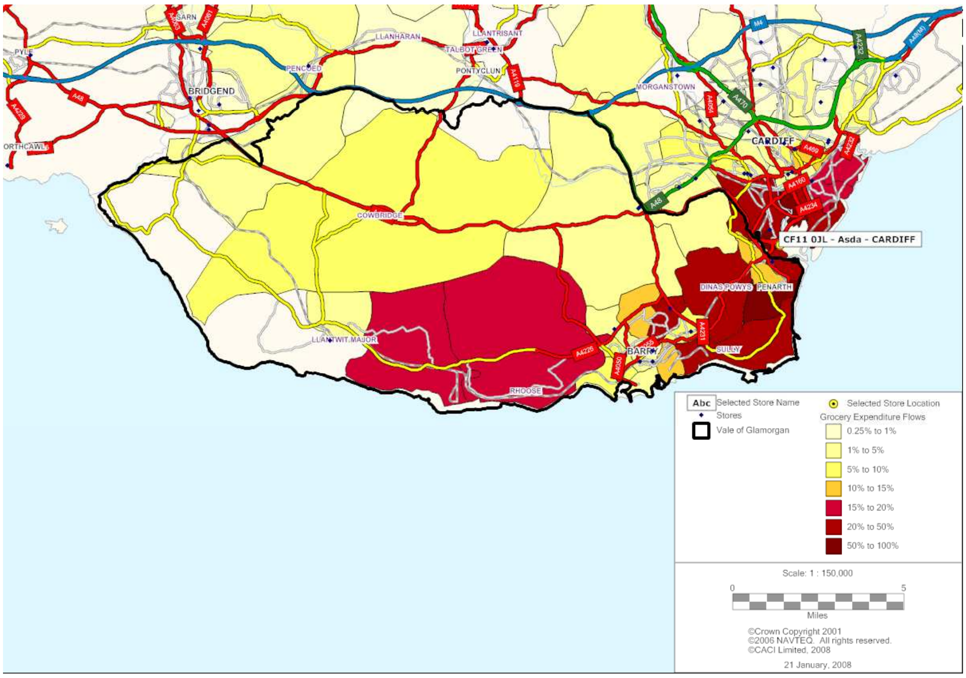


Fig 25.12: Tesco Extra - Bridgend

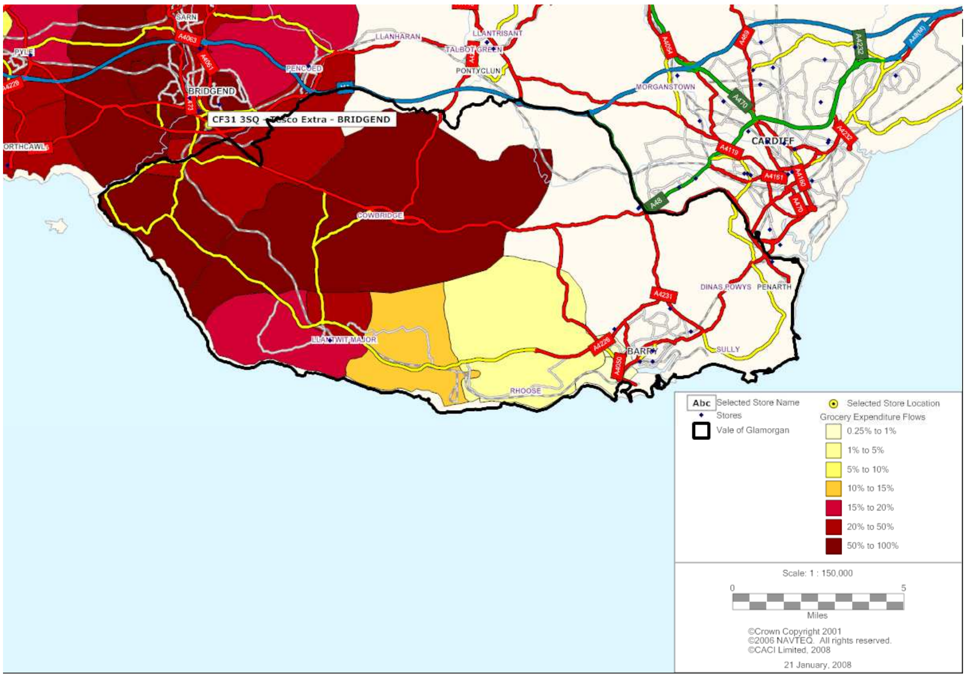


Fig 25.13: Asda Wal-Mart Superstore - Cardiff

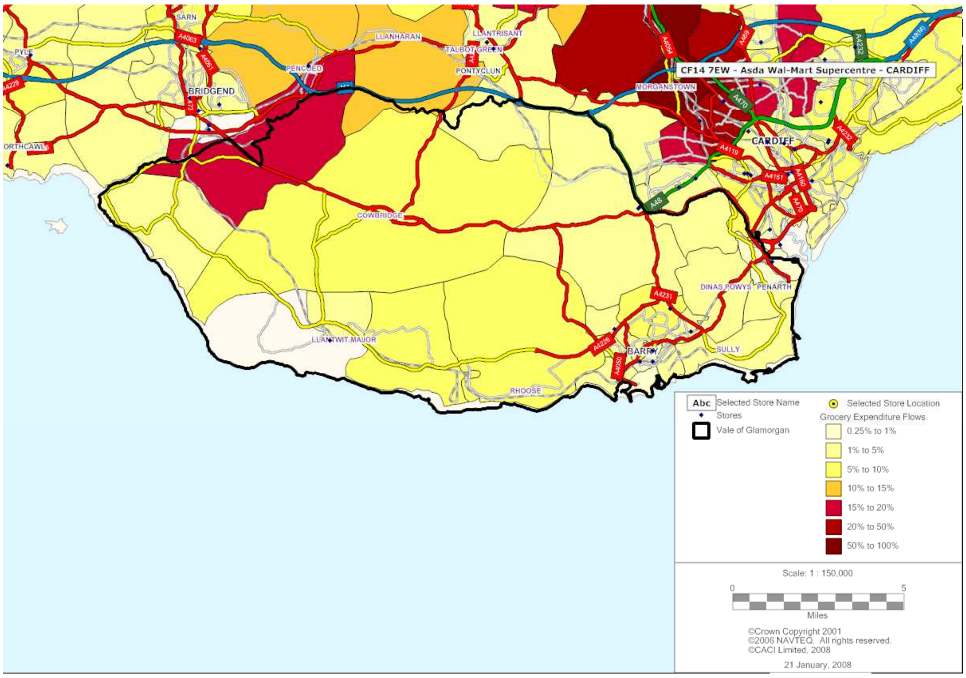


Fig 25.14: Lidl – Cardiff

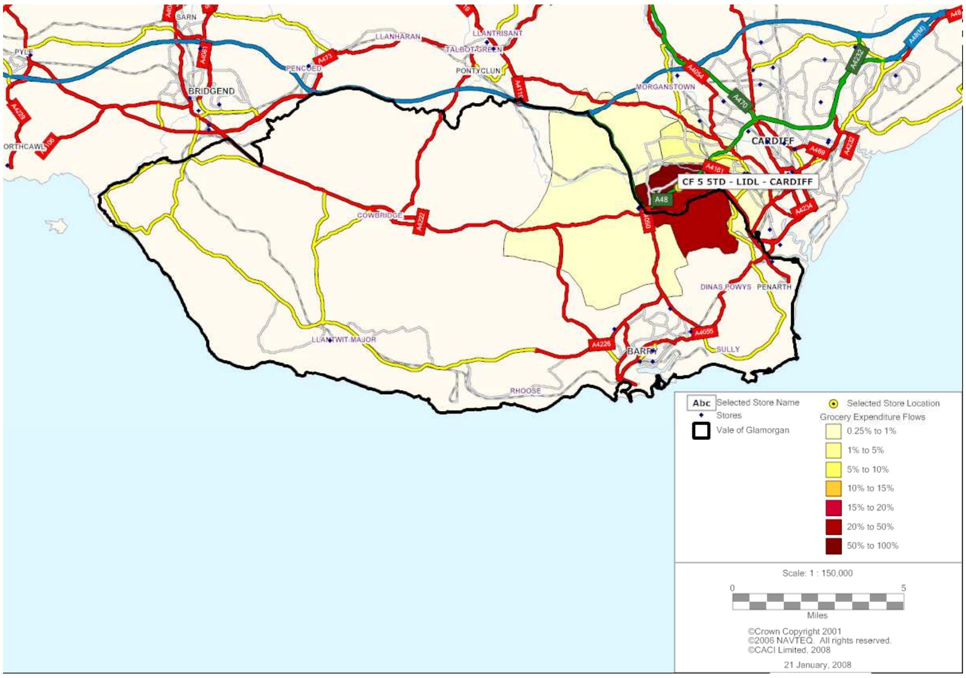


Fig: 25.15 Tesco Extra – Cardiff

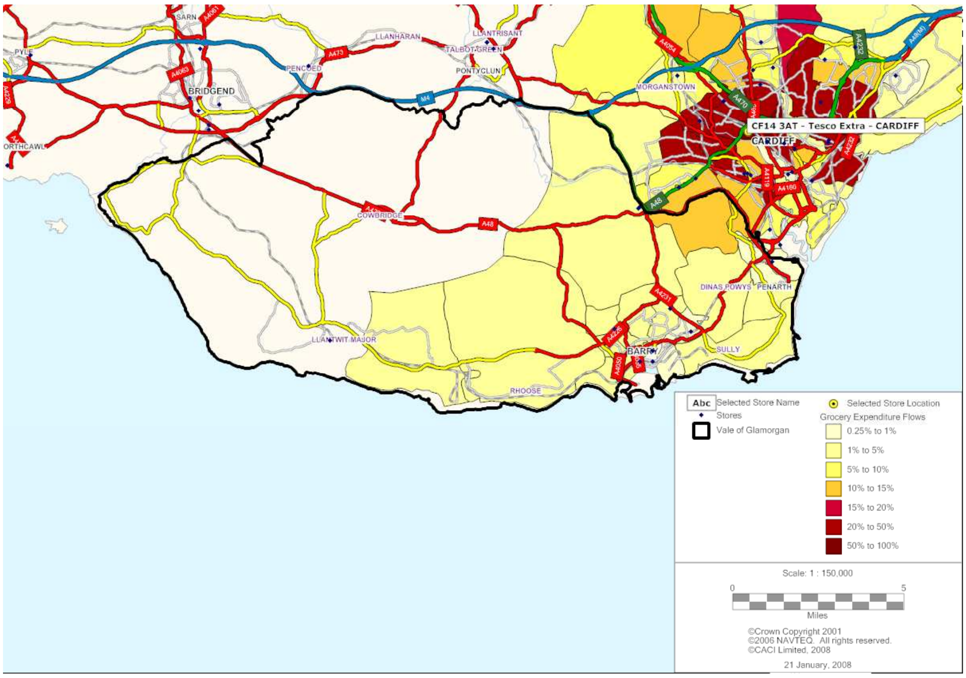


Fig: 25.16 Tesco – Bridgend

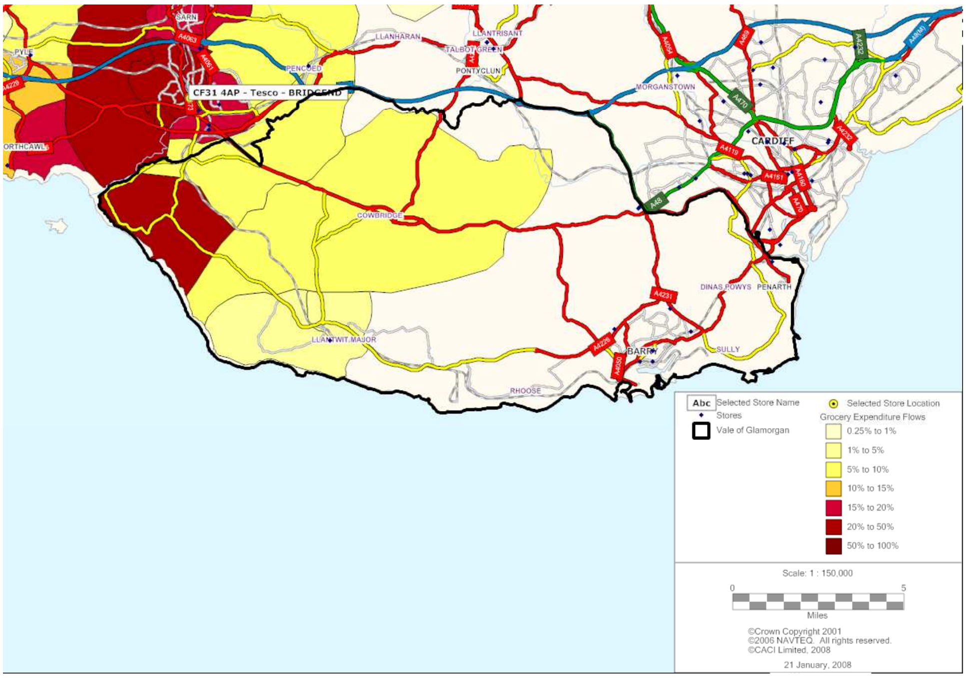
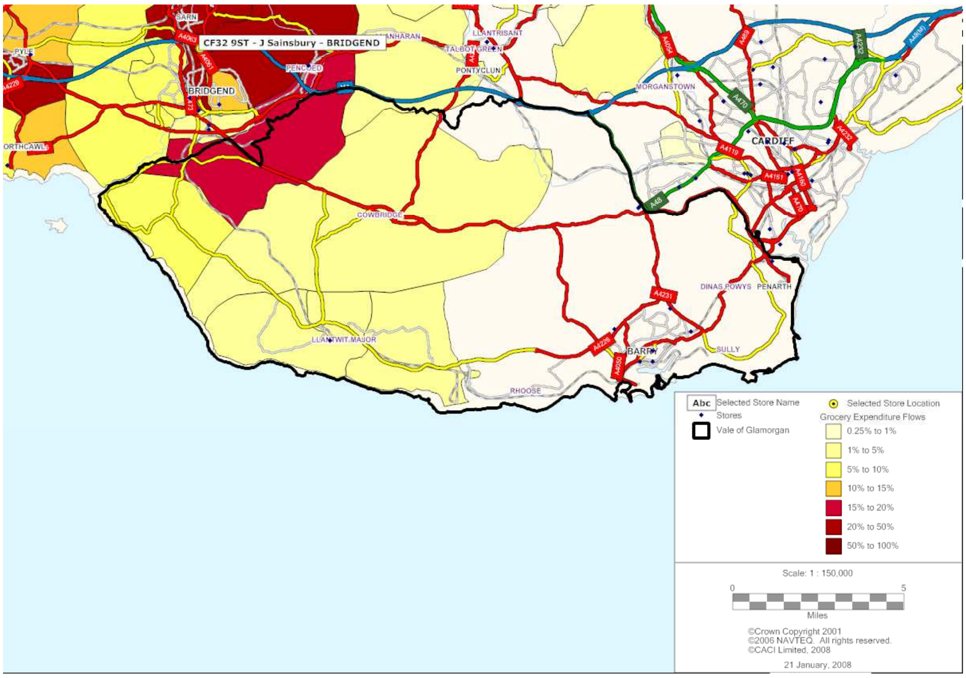


Fig: 25.17 Sainsbury's - Bridgend



4.0 Comparison Goods Capacity Assessment

Current Comparison Floorspace Provision

4.1 Fig. 26 provides a summary of current non-vacant, net internal comparison goods retail floorspace within the Vale's six Retail Footprint Centres[12] Barry, Penarth, Cowbridge, Llantwit Major, Dinas Powys and Culverhouse Cross, by goods category. These estimates have been based on the Vale of Glamorgan Council's 2007 audit data of gross floorspace estimates, using a ratio of 0.7 to convert from gross to net floorspace.

Fig. 26: Comparison Goods Floorspace (sq m net)

Retail Category	Barry Floorspace (net sq m)	Penarth Floorspace (Net sq m)	Cowbridge Floorspace (Net sq m)	Llantwit Major Floorspace (Net sq m)	Dinas Powys Floorspace (Net sq m)	Culverhouse Cross (Net sq m)	Total Floorspace (Net sq m)
Charity	790	477	93	127			1,487
Clothing, Accessories & Sports	3,596	1,717	1,250	360	34	1,136	8,093
Electrical Goods	575	608				4,695	5,878
Health and Beauty	54		70				192
Household Goods and Gifts	6,488	2,317	1,876	364	179	4,285	18,947
Music, Video, Games, Toys, Books and Stationery	1,435	706	41				2,182
Grand Total	**12,938**	**5,825**	**3,330**	**851**	**213**	**10,116**	**36,779**

Source: Vale of Glamorgan Council Audits (2007)

4.2 To estimate residential catchment, market shares and hence centre turnover, CACI have employed their Retail Footprint model, which models resident's choice of location for comparison goods shopping, based on factors such as the attractiveness of the centre, relative distance to centre and competing centres.

4.3 CACI have also performed their own qualitative assessments of the centres, which in combination with the audit fascia information which is undertaken to assess the sizing of the fascia of the outlets. This has enabled CACI to update their baseline Retail Footprint with the most up-to-date information on the retail mix, attractiveness, market positioning and role of each centre. All of these characteristics are taken into account in the Retail Footprint model to estimate the residential catchment and market shares for each centre.

4.4 Figure 27 summarises key attributes of each centre used by the Retail Footprint model.

[12] Retailers which sell comparable goods

Fig. 27: Key attributes of each centre

Centre	Role	No. Comparison Goods Units	Proportion of Comparison Goods Units Independent	Retail Footprint Score	Market Positioning
Barry	Average Metropolitan Towns	128	86.7%	220	Mass
Penarth	Average Urban Centres Non-London	72	93.1%	106	Mass
Cowbridge	Small Rural Centres	57	100.0%	66	N/A
Llantwit Major	Small Rural Centres	20	95.0%	23	N/A
Dinas Powys	Small Local Centres	5	100.0%	6	N/A
Culverhouse Cross	Retail Parks Minority Fashion	9	0.0%	39	Mass

Source: Glamorgan Council and CACI Audits (2007)

Analysis of Residential Catchment Areas

4.5 In order to perform a comparison goods capacity assessment, catchment areas need to be defined to assess the level of comparison goods spend attributable to the towns Barry, Penarth, Cowbridge, Llantwit Major, Dinas Powys and Culverhouse Cross. This has been defined by CACI using the Retail Footprint model and is represented in Figs 28.1 – 28.7.

4.6 The modelled retail catchments are broken down into four sub-catchment areas. The Primary Catchment area is defined by where the first 50% shoppers of shoppers come from. The Secondary Catchment is defined by where the next 25% of shoppers come from. Tertiary and Quaternary catchments are similarly defined, representing where the next 15% and final 10% of shoppers come from.

4.7 The combination of the Primary, and Secondary catchments is referred to as the core catchment area. This area represents where 75% of a centre's spend comes from. The combination of Primary, Secondary and Tertiary catchments is referred to as the major catchment area. This area represents where the majority (90%) of a centre's spend comes from.

4.8 Due to the definition of these areas at Postcode Sector level, the actual proportion of shoppers coming from any particular sub-catchment may vary slightly, with the cut-off marks as close to the targets of 50%, 25%, 15% and 10% as possible.

4.9 Retail Footprint is also able to provide information on the estimated market share of resident-based spend that a centre is achieved, by postcode sector.

4.10 By multiplying market share within each postcode sector by resident-based spend on comparison goods, and adding up this spend component across all postcode sectors, it is possible to obtain an estimate of spend attributable to each centre. This is referred to as the market potential of the centre.

4.11 Catchment analysis is also useful to understand where and who the centre's potential resident-based shoppers are, and what choices they have to shop in relation to the centre being analysed.

Catchment Analysis and Estimates of market potential

The Vale's Population Projections have been incorporated into the modelling to reflect how housing market change will affect the development of the retail offer within the borough. The addition of 7,500 housing units greatly increases the retail potential of the area in the medium term, adding a further 15,000[13] residents to the forecasted population growth for 2007-2026.

Fig. 28.1: Barry Catchment Expenditure Statistics 2007

Catchment	Total Population	Total Households	Total Comparison Goods Expenditure (£million)	Market Share of Expenditure (%)	Resident-Based Comparison Goods Market Potential (£million)
Primary	27,536	12,116	£60.5	56.3%	£34.1
Secondary	22,222	9,298	£47.0	23.2%	£10.9
Tertiary	32,211	13,457	£77.4	11.0%	£8.4
Quaternary	191,504	83,708	£450.6	1.3%	£5.7
Total	**273,473**	**118,579**	**£635.7**	**9.3%**	**£59.2**

Fig. 28.2: Penarth Catchment Expenditure Statistics 2007

Catchment	Total Population	Total Households	Total Comparison Goods Expenditure (£million)	Market Share of Expenditure (%)	Resident-Based Comparison Goods Market Potential (£million)
Primary	49,177	21,575	£116.4	13.2%	£15.3
Secondary	94,621	42,243	£211.5	3.2%	£6.6
Tertiary	126,564	53,221	£291.8	1.4%	£4.5
Quaternary	224,199	93,238	£545.0	0.5%	£2.9
Total	**494,561**	**210,277**	**£1,164.8**	**2.5%**	**£29.1**

Fig. 28.3: Cowbridge Catchment Expenditure Statistics 2007

Catchment	Total Population	Total Households	Total Comparison Goods Expenditure (£million)	Market Share of Expenditure (%)	Resident-Based Comparison Goods Market Potential (£million)
Primary	14,449	5,924	£37.1	22.4%	£8.2
Secondary	68,450	28,801	£168.3	2.2%	£3.6
Tertiary	102,914	43,556	£229.4	0.9%	£2.0
Quaternary	106,958	45,145	£237.1	0.5%	£1.1
Total	**292,771**	**123,426**	**£672.0**	**2.3%**	**£15.2**

[13] Source: CACI

Fig. 28.4: Llantwit Major Catchment Expenditure Statistics 2007

Catchment	Total Population	Total Households	Total Comparison Goods Expenditure (£million)	Market Share of Expenditure (%)	Resident-Based Comparison Goods Market Potential (£million)
Primary	10,068	4,029	£24.1	24.8%	£6.0
Secondary	4,535	1,668	£10.2	7.3%	£0.7
Tertiary	6,486	2,800	£16.2	2.5%	£0.4
Quaternary	16,121	6,812	£40.2	1.0%	£0.4
Total	**37,210**	**15,309**	**£91.0**	**8.3%**	**£7.5**

Fig. 28.5: Dinas Powys Catchment Expenditure Statistics 2007

Catchment	Total Population	Total Households	Total Comparison Goods Expenditure (£million)	Market Share of Expenditure (%)	Resident-Based Comparison Goods Market Potential (£million)
Primary	23,832	10,138	£54.8	1.2%	£0.6
Secondary	21,159	9,157	£50.4	0.6%	£0.3
Tertiary	21,097	9,282	£45.6	0.4%	£0.1
Quaternary	15,116	6,794	£33.9	0.3%	£0.1
Total	**81,204**	**35,371**	**£184.9**	**0.7%**	**£1.2**

Fig. 28.6: Culverhouse Cross Catchment Expenditure 2007

Catchment	Total Population	Total Households	Total Comparison Goods Expenditure (£million)	Market Share of Expenditure (%)	Resident-Based Comparison Goods Market Potential (£million)
Primary	60,378	25,518	£128.2	6.0%	£7.7
Secondary	103,509	45,021	£246.2	1.7%	£4.2
Tertiary	98,524	42,603	£239.9	1.0%	£2.4
Quaternary	150,108	63,209	£343.5	0.5%	£1.5
Total	**412,519**	**176,351**	**£958.0**	**1.7%**	**£16.0**

Currently Culverhouse Cross is categorised as Retail Park Minority Fashion, having only 5.8% of its retail offer as fashion. In exploring the potential of the site as a better performing centre relative to the amount of retail floorspace, a class change scenario was carried out where the centre was re-categorised as a Retail Park Majority Fashion, that is where at least 50% of the units at the site would be fashion operator occupied. The results of this scenario (tested for 2007 variables) are shown below to illustrate the difference in performance.

Fig. 28.7: Culverhouse Cross Expenditure Analysis – Class Change from Retail Park Minority Fashion to Retail Park Majority Fashion 2007

Catchment	Total Population in enlarged catchment	Total Households in enlarged catchment	Total Comparison Goods Expenditure (£million)	Market Share of Expenditure (%)	Resident-Based Comparison Goods Market Potential (£million)
Primary	128,461	55,266	£288.0	5.2%	£14.9
Secondary	173,840	74,590	£418.4	2.0%	£8.2
Tertiary	264,313	111,262	£591.4	0.8%	£4.6
Quaternary	348,174	132,647	£784.7	0.4%	£3.0
Total	**914,788**	**373,765**	**£2,082.5**	**1.5%**	**£30.8**

Fig. 29.1: 2007 Turnover Potential

Centre	Market Potential (£m)	Turnover Potential (£m)	Adjustment	Turnover Potential (£m)
Barry	£59.2	£42.2	3.86%	£40.5
Penarth	£29.1	£20.7	3.86%	£19.9
Cowbridge	£15.2	£10.9	3.86%	£10.4
Llantwit Major	£7.6	£5.4	3.86%	£5.2
Dinas Powys	£1.2	£0.9	3.86%	£0.8
Culverhouse Cross	£16.0	£11.4	3.86%	£11.0
Total	**£128.4**	**£91.4**		**£87.9**

Fig. 29.2: 2007 Trading Density

Centre	Turnover Potential (£m)	Comparison Retail Floorspace (sq m net)	Trading Density (£ Per sq m)
Barry	£40.5	12,938	£3,134
Penarth	£19.9	5,825	£3,420
Cowbridge	£10.4	3,330	£3,134
Llantwit Major	£5.2	851	£6,097
Dinas Powys	£0.8	213	£3,972
Culverhouse Cross	£11.0	10,116	£1,084
Total	**£87.9**	**33,273**	**£2,642**

Fig. 29.3: 2007 Capacity Assessment

Centre	Turnover Potential (£m)	Target Trading Density (£ Per sq m)	Capacity (Turnover/ Target Density) Sq M net	Headroom (Capacity – Current Retail Floorspace) Sq M net
Barry	£40.5	£3,000	13,515	577
Penarth	£19.9	£3,000	6,641	816
Cowbridge	£10.4	£2,000	5,217	1,887
Llantwit Major	£5.2	£2,000	2,594	1,743
Dinas Powys	£0.8	£2,000	423	210
Culverhouse Cross	£11.0	£3,000	3,657	-6,459
Total	**£87.9**		**32,047**	**-1,226**

Fig. 30.1: 2012 Turnover Potential

Centre	Market Potential (£m)	Turnover Potential (£m)	Adjustment	Turnover Potential (£m)
Barry	£73.6	£52.4	8.86%	£47.7
Penarth	£30.7	£21.8	8.86%	£19.9
Cowbridge	£15.8	£11.3	8.86%	£10.3
Llantwit Major	£8.1	£5.7	8.86%	£5.2
Dinas Powys	£1.4	£1.0	8.86%	£0.9
Culverhouse Cross	£17.3	£12.3	8.86%	£11.2
Total	**£146.8**	**£104.5**		**£95.2**

Fig. 30.2: 2012 Trading Density

Centre	Turnover Potential (£m)	Comparison Retail Floorspace (sq m net)	Trading Density (£ Per sq m)
Barry	£47.7	12,938	£3,690
Penarth	£19.9	5,825	£3,416
Cowbridge	£10.3	3,330	£3,088
Llantwit Major	£5.2	851	£6,153
Dinas Powys	£0.9	213	£4,132
Culverhouse Cross	£11.2	10,116	£1,108
Total	**£95.2**	**33,273**	**£2,863**

Fig. 30.3: 2012 Capacity Assessment

Centre	Turnover Potential (£m)	Target Trading Density (£ Per sq m)	Capacity (Turnover/ Target Density) Sq M net	Headroom (Capacity – Current Retail Floorspace) Sq M net
Barry	£47.7	£3,000	15,914	2,976
Penarth	£19.9	£3,000	6,632	807
Cowbridge	£10.3	£2,000	5,142	1,812
Llantwit Major	£5.2	£2,000	2,618	1,767
Dinas Powys	£0.9	£2,000	440	227
Culverhouse Cross	£11.2	£3,000	3,737	-6,379
Total	**£95.2**		**34,483**	**1,210**

Fig. 31.1: 2017 Turnover Potential

Centre	Market Potential (£m)	Turnover Potential (£m)	Adjustment	Turnover Potential (£m)
Barry	£75.2	£53.5	13.86%	£46.1
Penarth	£31.5	£22.4	13.86%	£19.3
Cowbridge	£16.3	£11.6	13.86%	£10.0
Llantwit Major	£8.3	£5.9	13.86%	£5.1
Dinas Powys	£1.4	£1.0	13.86%	£0.9
Culverhouse Cross	£17.7	£12.6	13.86%	£10.9
Total	**£150.3**	**£107.0**		**£92.2**

Fig. 31.2: 2017 Trading Density

Centre	Turnover Potential (£m)	Comparison Retail Floorspace (sq m net)	Trading Density (£ Per sq m)
Barry	£46.1	12,938	£3,565
Penarth	£19.3	5,825	£3,313
Cowbridge	£10.0	3,330	£2,999
Llantwit Major	£5.1	851	£5,962
Dinas Powys	£0.9	213	£4,007
Culverhouse Cross	£10.9	10,116	£1,073
Total	**£92.2**	**33,273**	**£2,771**

Fig. 31.3: 2017 Capacity Assessment

Centre	Turnover Potential (£m)	Target Trading Density (£ Per sq m)	Capacity (Turnover/ Target Density) Sq M net	Headroom (Capacity – Current Retail Floorspace) Sq M net
Barry	£46.1	£3,000	15,375	2,437
Penarth	£19.3	£3,000	6,432	607
Cowbridge	£10.0	£2,000	4,994	1,664
Llantwit Major	£5.1	£2,000	2,537	1,686
Dinas Powys	£0.9	£2,000	427	214
Culverhouse Cross	£10.9	£3,000	3,618	-6,498
Total	**£92.2**		**33,382**	**109**

Fig. 32.1: 2026 Turnover Potential

Centre	Market Potential (£m)	Turnover Potential (£m)	Adjustment	Turnover Potential (£m)
Barry	£78.2	£55.7	14.86%	£47.4
Penarth	£32.7	£23.3	14.86%	£19.8
Cowbridge	£17.0	£12.1	14.86%	£10.3
Llantwit Major	£8.7	£6.2	14.86%	£5.3
Dinas Powys	£1.5	£1.0	14.86%	£0.9
Culverhouse Cross	£18.4	£13.1	14.86%	£11.1
Total	**£156.4**	**£111.4**		**£94.8**

Fig. 32.2: 2026 Trading Density

Centre	Turnover Potential (£m)	Comparison Retail Floorspace (sq m net)	Trading Density (£ Per sq m)
Barry	£47.4	12,938	£3,663
Penarth	£19.8	5,825	£3,404
Cowbridge	£10.3	3,330	£3,101
Llantwit Major	£5.3	851	£6,169
Dinas Powys	£0.9	213	£4,134
Culverhouse Cross	£11.1	10,116	£1,101
Total	**£94.8**	**33,273**	**£2,849**

Fig. 32.3: 2026 Capacity Assessment

Centre	Turnover Potential (£m)	Target Trading Density (£ Per sq m)	Capacity (Turnover/ Target Density) Sq M net	Headroom (Capacity – Current Retail Floorspace) Sq M net
Barry	£47.4	£3,000	5,797	2,859
Penarth	£19.8	£3,000	6,609	784
Cowbridge	£10.3	£2,000	5,163	1,833
Llantwit Major	£5.3	£2,000	2,625	1,774
Dinas Powys	£0.9	£2,000	440	227
Culverhouse Cross	£11.1	£3,000	3,711	-6,405
Total	**£94.8**		**34,345**	**1,072**

This data reflects that there is little room for expansion of retail floorspace after recent developments, in terms of the potential catchment within the Vale of Glamorgan towns of Barry (as defined), Penarth, Cowbridge, Llantwit Major, Dinas Powys and Culverhouse Cross.

Fig. 33: Competition Assessment: Barry's Comparison Offer by Category

Retail Category	Barry	Cardiff	Bridgend	Pontypridd	Competing Centre Average	Index (Competing Centres = 100)
Womenswear	14.3%	24.0%	16.3%	11.4%	17.2%	83
Menswear	3.6%	3.9%	2.0%	2.3%	2.7%	130
Childrenswear / Maternity / Babywear	3.6%	1.7%	4.1%	2.3%	2.7%	132
Mixed Clothing	7.1%	10.0%	6.1%	6.8%	7.7%	93
Footwear	10.7%	9.6%	10.2%	9.1%	9.6%	111
Jewellers	0.0%	4.8%	4.1%	4.5%	4.5%	0
Fashion Accessories	0.0%	2.2%	4.1%	4.5%	3.6%	0
Clothing & Accessories Sub-Total	**39.3%**	**56.3%**	**46.9%**	**40.9%**	**48.1%**	**82**
Chemists	21.4%	0.9%	4.1%	9.1%	4.7%	458
Drugs & Toiletries	3.6%	3.5%	2.0%	4.5%	3.4%	106
Health Foods	0.0%	1.3%	2.0%	4.5%	2.6%	0
Health & Beauty Sub-Total	**25.0%**	**5.7%**	**8.2%**	**18.2%**	**10.7%**	**234**
Toys	0.0%	2.6%	0.0%	0.0%	0.9%	0
Music & Video	0.0%	1.3%	0.0%	0.0%	0.4%	0
Computer Software & Accessories	0.0%	2.2%	2.0%	2.3%	2.2%	0
Cards & Stationery	10.7%	2.6%	4.1%	6.8%	4.5%	238
Sportswear & Equipment	3.6%	7.0%	8.2%	6.8%	7.3%	49
Books	0.0%	1.7%	0.0%	0.0%	0.6%	0
Gifts	0.0%	4.4%	0.0%	0.0%	1.5%	0
Leisure Goods Sub-Total	**14.3%**	**21.8%**	**14.3%**	**15.9%**	**17.3%**	**82**
Drapery / Soft Furnishings	0.0%	0.0%	0.0%	2.3%	0.8%	0
Variety Stores	10.7%	2.6%	10.2%	9.1%	7.3%	147
Department Stores	0.0%	0.9%	0.0%	0.0%	0.3%	0
Household Goods Sub-Total	**10.7%**	**3.5%**	**10.2%**	**11.4%**	**8.4%**	**128**
Electrical	0.0%	1.7%	2.0%	0.0%	1.3%	0
Camera	0.0%	0.9%	0.0%	0.0%	0.3%	0
Electrical Goods Sub-Total	**0.0%**	**2.6%**	**2.0%**	**0.0%**	**1.6%**	**0**
Mobile Phones	7.1%	5.7%	10.2%	9.1%	8.3%	86
Opticians	3.6%	2.2%	6.1%	2.3%	3.5%	101
Opticians and Mobile Phones Sub-Total	**10.7%**	**7.9%**	**16.3%**	**11.4%**	**11.9%**	**90**
DIY High Street	0.0%	0.4%	0.0%	0.0%	0.1%	0
Catalogue Showrooms	0.0%	0.4%	2.0%	0.0%	0.8%	0
General Furniture	0.0%	1.3%	0.0%	2.3%	1.2%	0
Other Non-Food High Street Retailers Sub-Total	**0.0%**	**2.2%**	**2.0%**	**2.3%**	**2.2%**	**0**

4.12 CACI has employed their Retail Footprint comparison goods catchment and turnover model to estimate current and future turnover potential at each of the three main town centres. Converting this turnover potential into capacity, CACI have used target-trading densities (floorspace efficiency) to determine 'headroom' estimates for each town. A separate future floorspace needs assessment has been performed for each centre. Taking into account the impacts of resident population and Internet spend impacts, the following conclusions were drawn on present and future need.

4.13 Barry town centre draws strong performance from its high percentage (87%) of independent comparison retail, and despite the proximity of Cardiff it has a relatively strong hold on its primary catchment. The current turnover potential is £40.5m (see Fig 29.2). At a target trading density for comparison goods of £3,000 per m², only small comparison headroom is currently supported - an addition of 577m² (see Fig 29.3). Under current population projections however, this headroom will increase to 5,797m² (see fig 32.3) by 2026. Barry's retail mix highlights the areas that would increase the appeal of Barry and reclaim more shoppers from secondary and tertiary catchments - the crucial categories that are underrepresented are Clothing, Leisure Goods and Electrical Goods.

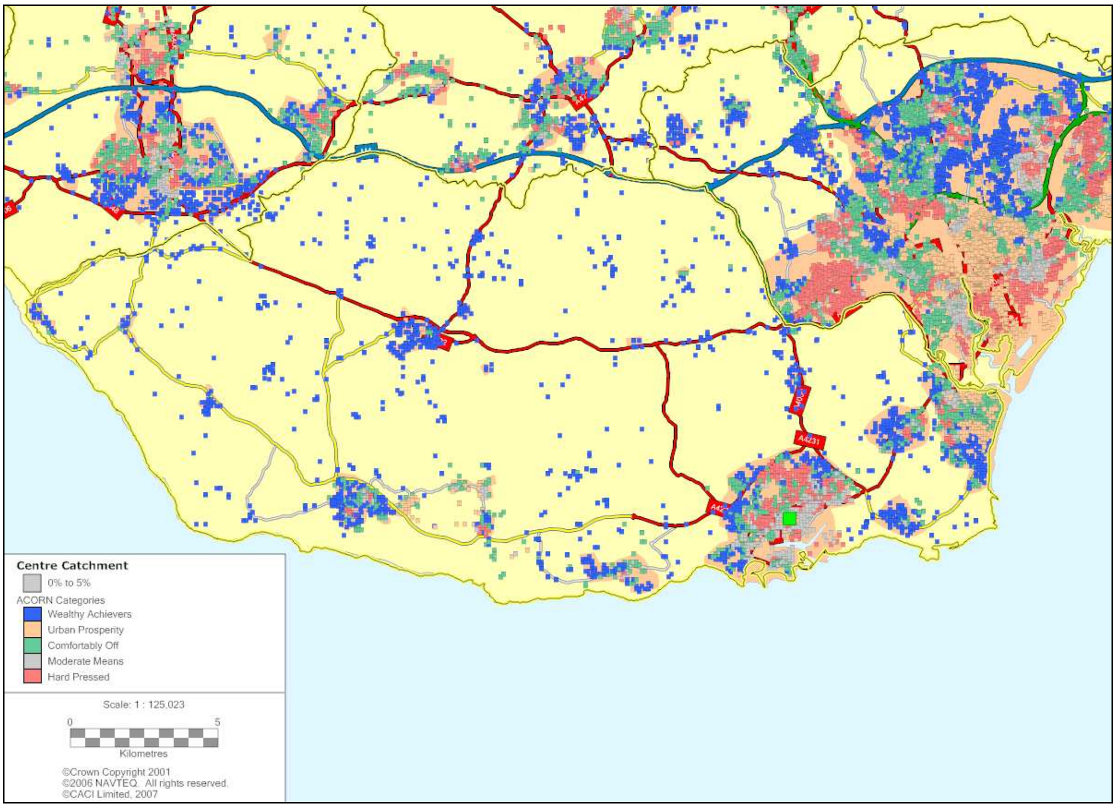
4.14 Penarth town centre has a current turnover potential of £19.9m (see Fig. 29.2) with a trading density of £3,420 per m². It currently supports slightly more comparison headroom than Barry, at 816m² (see Fig 29.3), however the comparison headroom in Barry will overtake that of Penarth by 2012. Despite the population adjustments the amount of headroom supported in Penarth will not change significantly going forward to 2026.

4.15 Cowbridge has a current turnover potential of £10.4m (see Fig 29.2) and a trading density of £3,134 per m². Due to market scale, a target trading density of £2,000 per m² is used to assess capacity and headroom. Currently 1,887m² (see Fig 29.3) of additional comparison floorspace is supported in Cowbridge, and under current housing and population projections this does not change significantly going forward to 2026.

4.16 No headroom for additional floorspace was identified at Culverhouse Cross. Its current turnover potential is £11.2m (see Fig 30.1), less than the turnover the current retail operators on the site are expected to be making. Looking ahead to 2026, the lack of headroom is not expected to change significantly across any of the planning period years. Currently Culverhouse Cross is categorised as Retail Park Minority Fashion, having only 5.8% of its retail offer as fashion. Higher comparison goods figures are achieved in Retail Parks where there is a stronger presence of fashion retailers.

4.17 The analysis has confirmed that the other two retail centres in the Vale, Llantwit Major a Rural Centre and Dinas Powys a Local Centre, do not contribute significantly to comparison goods turnover within the Vale of Glamorgan. (See Fig 29.1).

Fig. 34: Study Area by ACORN Type Concentrations



ACORN groups the UK population into 5 categories and 56 types. By analysing key census variables and lifestyle characteristics, it provides an understanding of the different types of consumers.

Fig. 34.1: Drive times around Barry

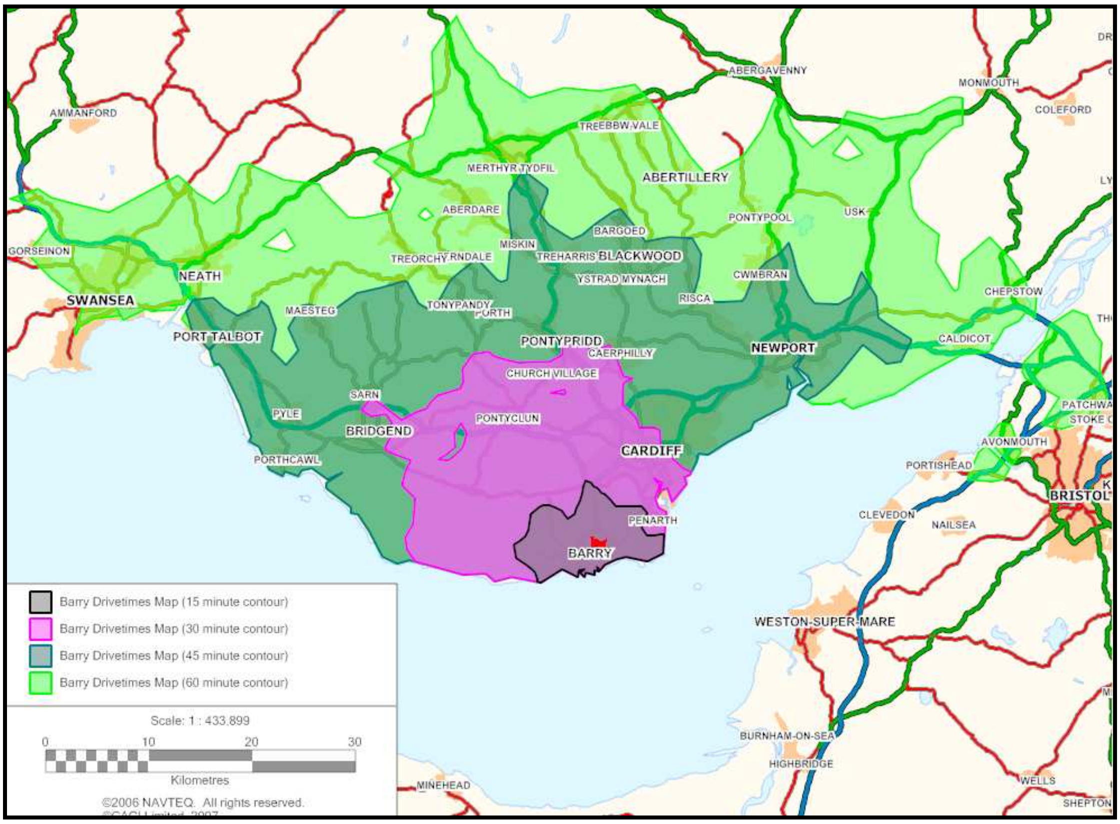


Fig. 34.2: Drive times around Cowbridge

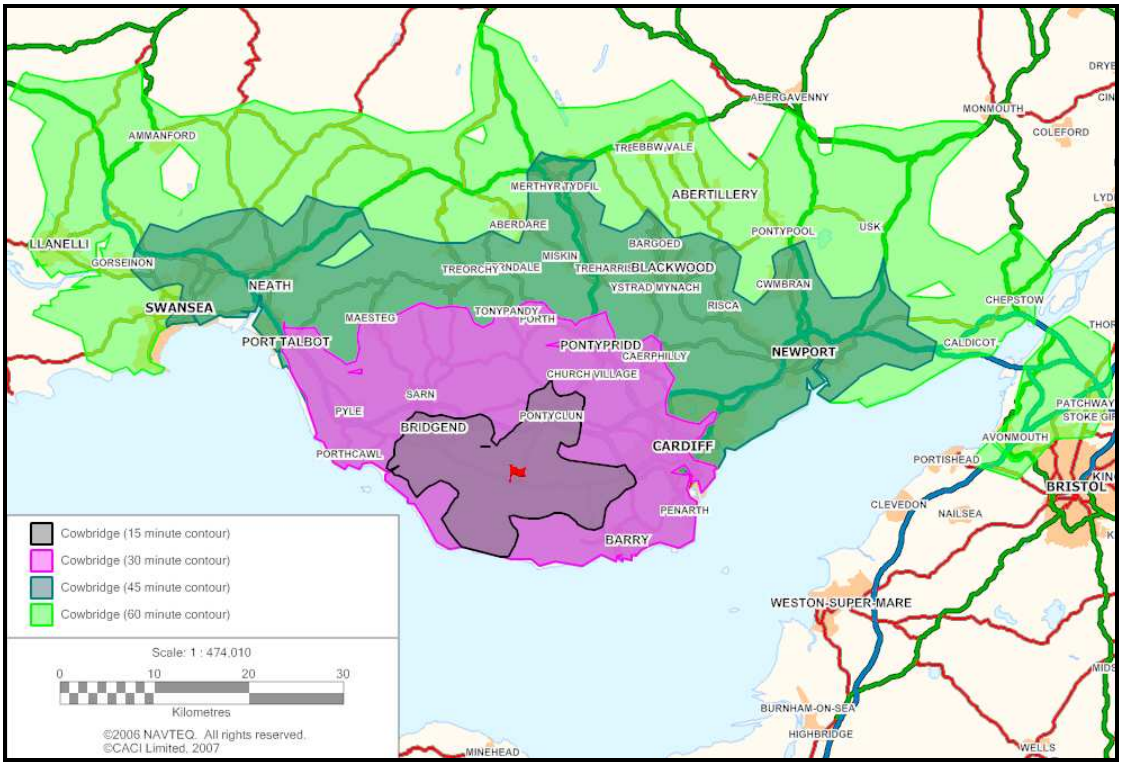


Fig. 34.3: Drive times around Dinas Powys

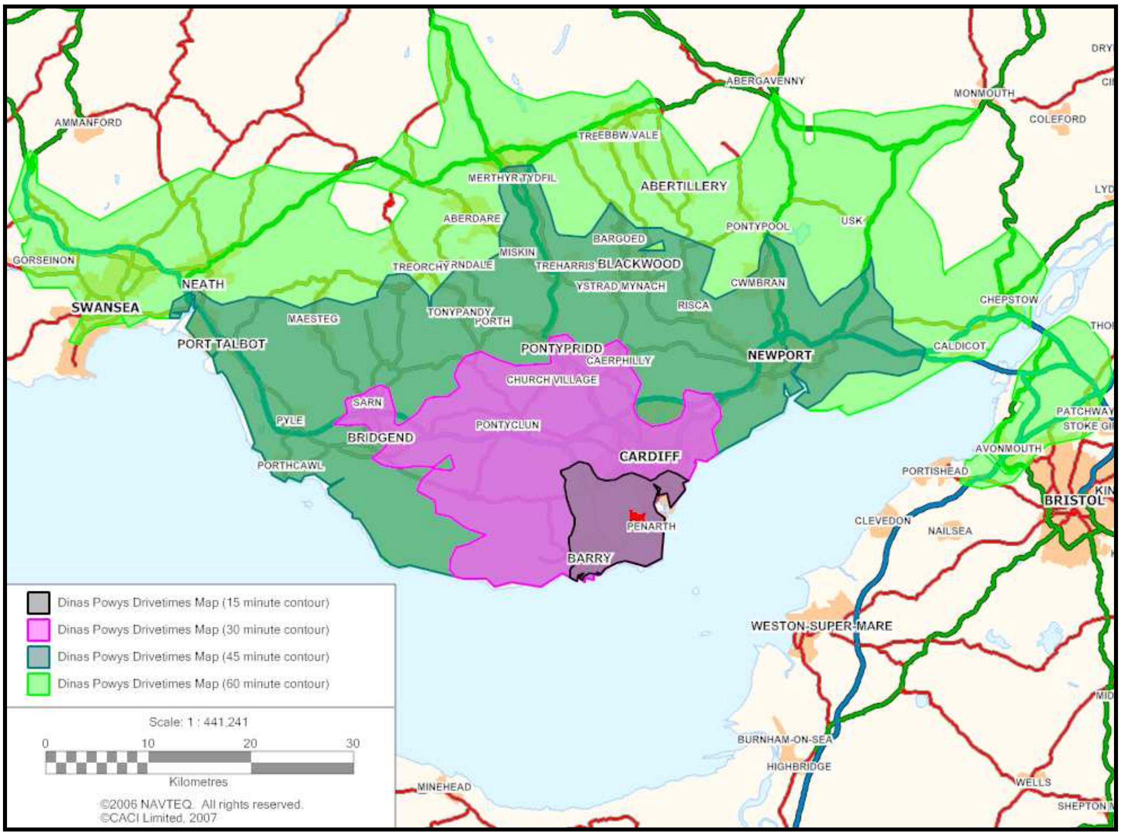


Fig. 34.4: Drive times around Llantwit Major

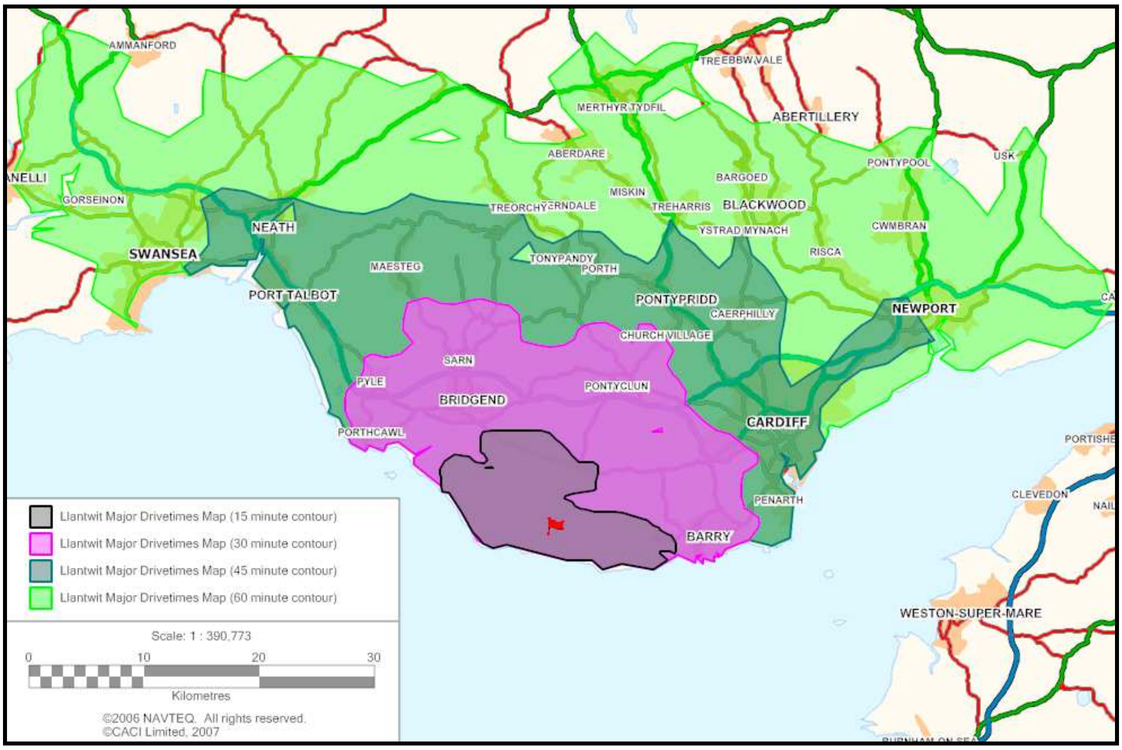


Fig. 34.5: Drive times around Penarth

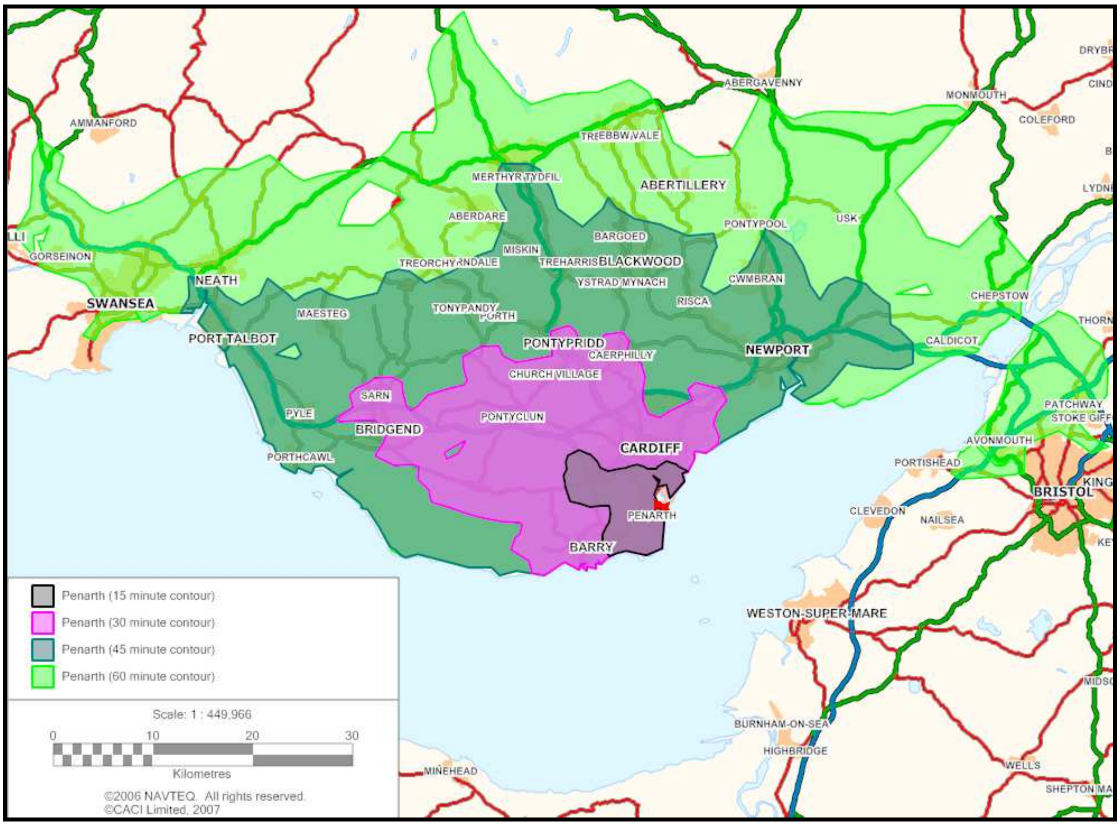
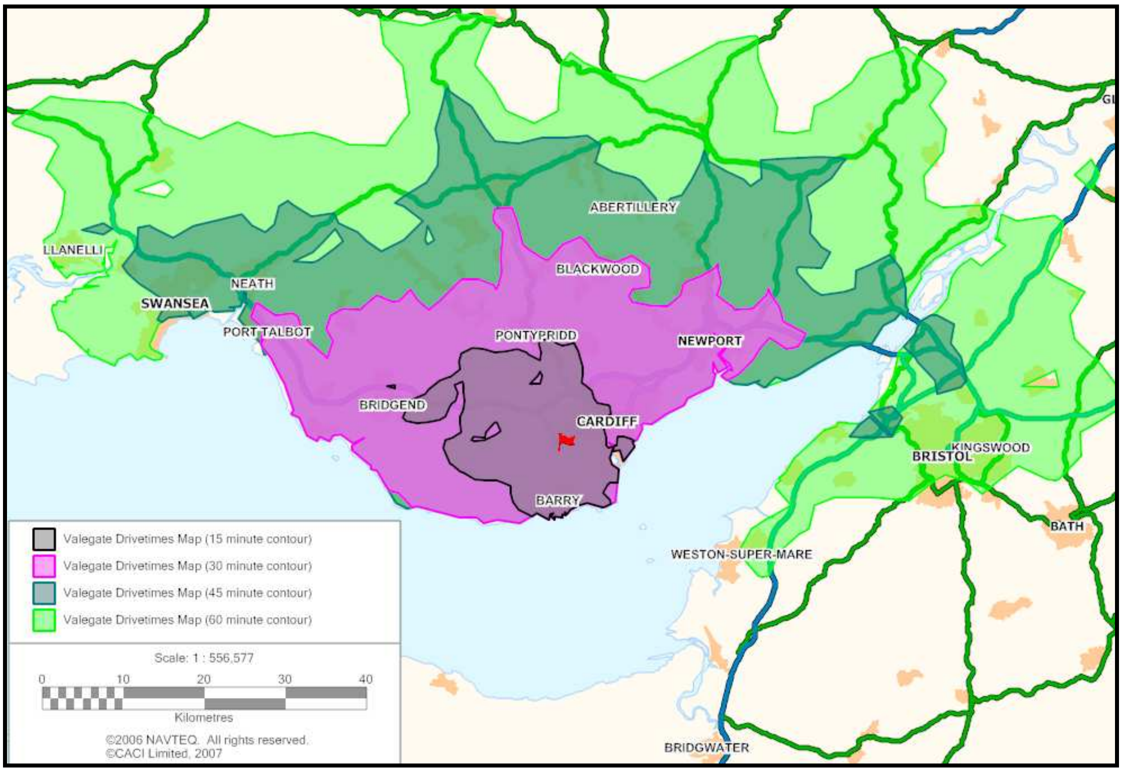


Fig. 34.6: Drive times around Valegate



5.0 Conclusion

5.1 Given the geographic proximity, there is significant leakage to Cardiff.

5.2 Within the UDP period 1996-2011, in the remaining time, CACI do not foresee significant changes in retail patterns of shoppers.

5.3 To minimize any further leakage, CACI advises the consolidation of existing retail within the town centres.

5.4 A suggestion is that in order to achieve this aim would be to establish the guiding principles for the development and management of the town centres.

5.5 There is extremely low representation in the area of retail categories such as Drapery/Soft Furnishings, DIY High Street Stores China/Glass/Giftware.

5.6 There is significant under representation of Ladieswear and to a lesser extent Menswear.

5.7 It is advised that a Town Centre "Action Plans" strategy is set up to include public/private affiliations.

5.8 A clear "retail vision" should be identified for Barry and the district centres.

5.9 An assessment of the future demographic profile of Vale of Glamorgan should be considered regarding the impact of progress, such as:

- Any projected economic growth;
- The impact of any new residential or mixed use developments in and around the Vale of Glamorgan.