

4 Land use & access to services

4.1 Where do we want to be?

Chapter 3 explained the projected population growth by ward across the Borough and the potential location of new residential development sites. At this stage, the location of new commercial sites is unknown except that significant growth in the number of these facilities is expected in the Metropolitan centre. This will be explored in the forthcoming CMC Transport Strategy (August 2010).

With population growth comes an increased demand for travel. Croydon's transport network will need to change to address existing constraints and to cope with the additional demands across the Borough on all modes. Access to public transport services across the Borough should be sufficient for these modes to be a viable option for travel to reach local services, the Metropolitan centre and locations further a field such as Gatwick and central London.

With the Metropolitan centre accommodating a significant proportion of the residential growth the centre must be highly accessible from key external destinations. This will attract high quality employment, education and retail offerings which with good urban design will build the foundations for a thriving sustainable community.

Access to services across the Borough must not be overlooked, with existing access options maintained and further investment in areas where current accessibility in high density areas is low.

4.2 Where are we now?

4.2.1 Land use distribution

Figure 4-1 and Figure 4-2 show the current distribution of land uses across the Borough. The distribution of the main land use elements can be described as follows:

Retail: includes shops supermarkets, department stores, public houses, wine bar restaurants, cafes and fish and chip shops.

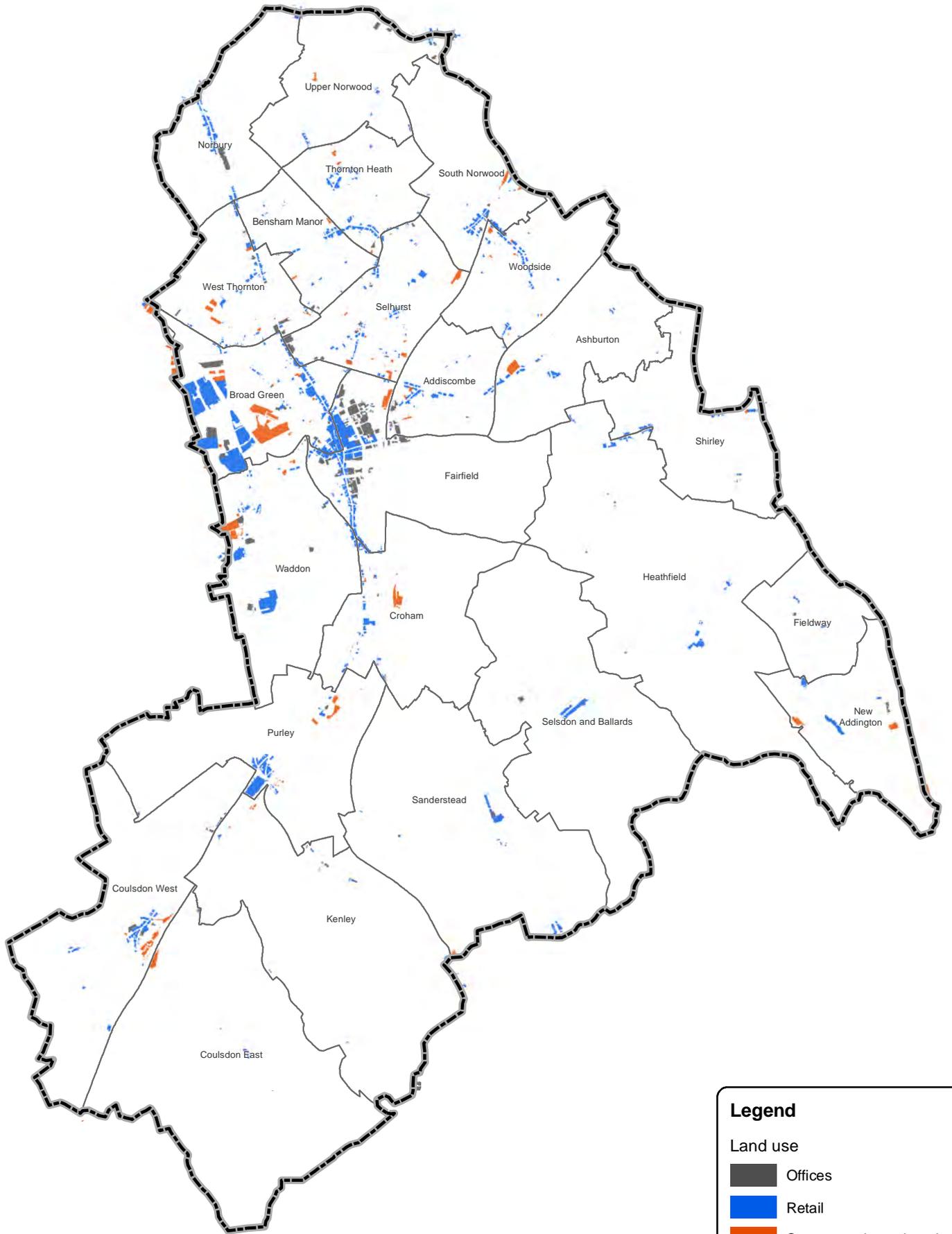
There is clearly a retail concentration within the Metropolitan centre and in the west of Broad Green ward. Further concentrations are found within all of the town centres across the Borough, as well as along the A235 leading into and out of the Metropolitan centre. Highest concentration occurs in the north of the Borough with small shop locations along many roads.

Offices: includes local and central government offices, banks, building societies and other offices.

The majority of offices are located in the Metropolitan centre, in particular the only large blocks, but there are some concentrations in Coulsdon, Broad Green, Thornton Heath Pond and Norbury town centres and in the west of Broad Green Ward. There are a number of other smaller sites in other town centres and in the north of the Borough.

Industry: Light industry, warehousing, depots.

Largest concentrations are in the west of the Broad Green and Waddon wards, also south of Coulsdon town centre and in the east of New Addington ward. There is a scattering of locations along the A235 north of Purley and throughout the northern wards of West Thornton, Nesham Manor, Selhurst, Addiscombe and Woodside where population density is highest.



Legend

Land use

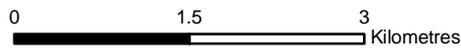
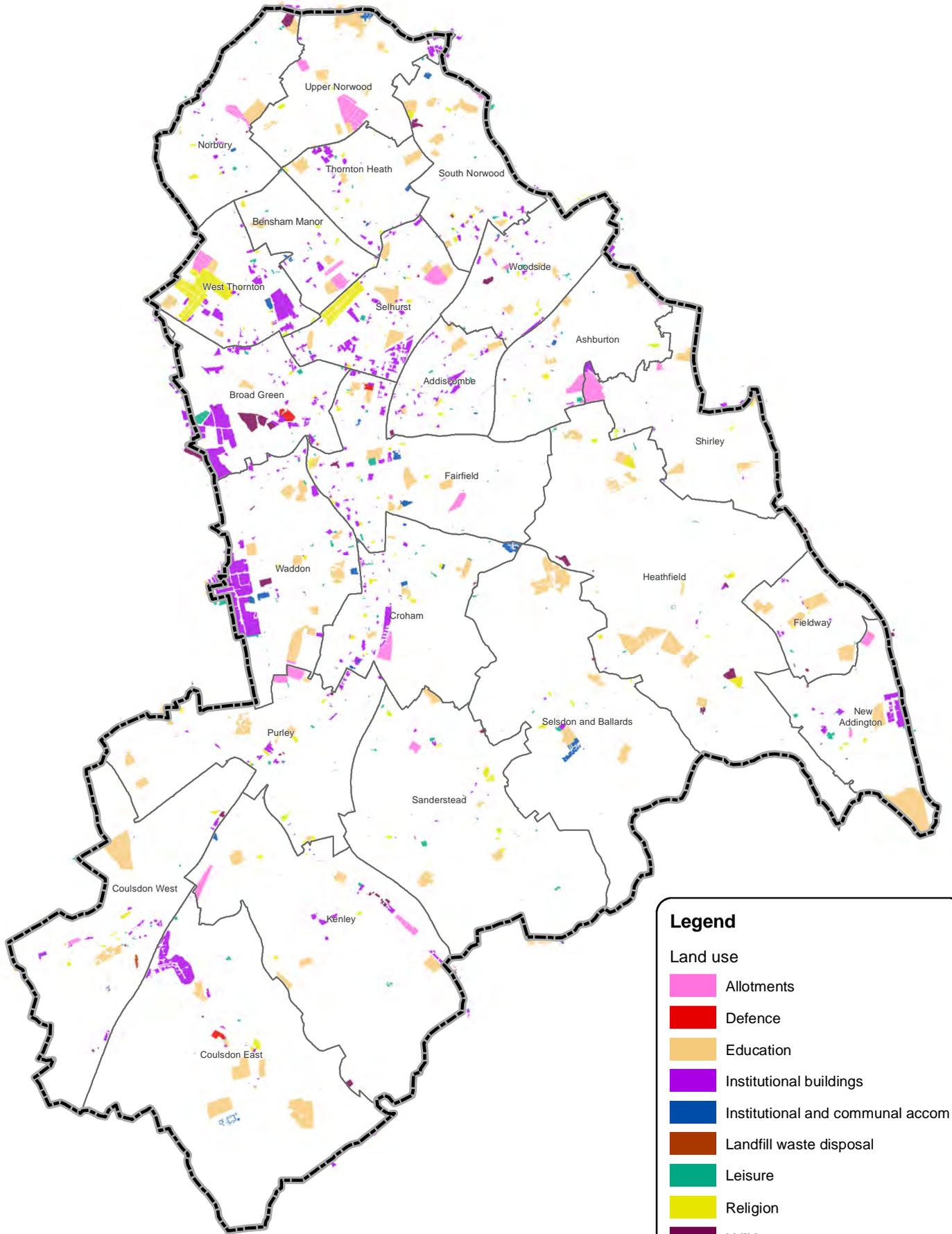
- Offices
- Retail
- Storage and warehousing
- Ward

0 1.5 3 Kilometres

Croydon Borough Wide Transport Strategy

Commercial land use distribution

Date	May 2010
Scale	1:65,000 @ A4
Drawn By	TH
Checked By	PL
Figure Number	Figure 4-1



Legend

Land use

- Allotments
- Defence
- Education
- Institutional buildings
- Institutional and communal accom
- Landfill waste disposal
- Leisure
- Religion
- Utilities
- Ward

Croydon Borough Wide Transport Strategy

Non-commercial land use distribution

Date	May 2010
Scale	1:65,000 @ A4
Drawn By	TH
Checked By	PL
Figure Number	Figure 4-2

Institutional buildings: including community centres, day nurseries, law courts, police and fire stations, hospitals and other non-residential health services.

Several sites at Thornton Heath Pond with others scattered throughout the Borough in areas where population density is greater than 50 people per hectare. Greater concentration in the north of the Borough where population is greatest. However, very few are located within the densely populated Addiscombe and Woodside wards.

Indoor leisure and recreation: includes art galleries, museums, theatres, amusement arcades, cinemas, night clubs, skating rinks, leisure centres, sports halls, swimming baths.

Located evenly throughout the Borough with a slightly higher concentration in the more densely populated in the north and in the Metropolitan centre.

Education: Schools and Colleges.

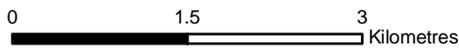
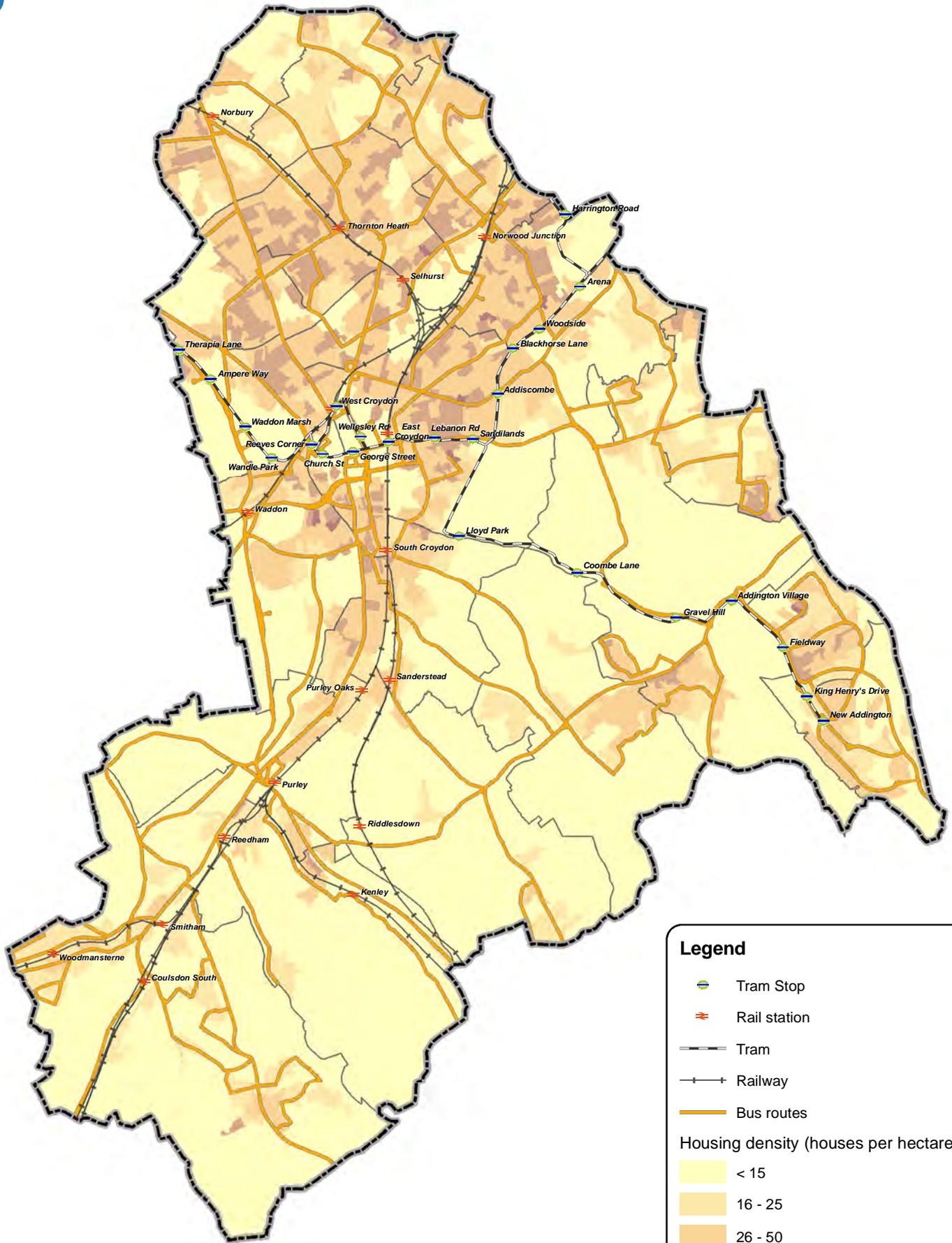
Many locations throughout the Borough, broadly in line with population density patterns.

4.2.2 Public transport accessibility

Chapter 3 presented the 2001 population density and described the trend of residential density across the Borough; higher density in the northern wards and lower in southern wards where a combination of topography and green spaces has constrained development to some extent.

Figure 4-6 begins to look at relating current density to accessibility. The figure shows that the current public transport networks appear complementary to population density; the networks are denser in the more densely populated areas (as would be expected). Towards the east and south of the Borough, the pockets of more densely populated areas are connected to the Metropolitan centre by the rail and tram networks and to each other by local bus services.

In viewing this figure it becomes apparent that significant areas of the south – albeit areas of low population density – have little or no public transport network immediately adjacent to them. In order to determine what this means in terms of public transport accessibility, we must consider public transport catchment.



Legend

- Tram Stop
- Rail station
- Tram
- Railway
- Bus routes

Housing density (houses per hectare)

- < 15
- 16 - 25
- 26 - 50
- 51 - 100
- > 100

Borough Transport Strategy

Draft Final

Figure 4-4 identifies public transport nodes, i.e. bus stops, rail and tram stations and projects a 10 minute walk (800 metres) from these points. The dark green circles show areas that are within 10 minutes walk of a bus stop and rail or tram station, while the lighter green circles show areas within a 10 minute walk of bus services only. It can be seen that more than half of the Borough has access to bus *and* rail or tram services within a 10 minute walk while almost all of the rest of the Borough has access to at least a bus service within a 10 minute walk of their home. The only areas without access to any public transport service within a 10 minute walk are the areas of lowest population density.

While it appears that public transport *coverage* is good, what this does not tell us is how good these services are. In Chapters 9, 10 and 11 we describe public transport service provision in greater detail, but for now the Public Transport Accessibility Level (PTAL) map in Figure 4-5 provides us with an indication of how good access to services are across the Borough.

PTALs are a detailed and accurate measure of the accessibility of a point from a development site to the public transport network, taking into account walk access time and service availability. The method is essentially a way of measuring the density of the public transport network at particular points.

Walk times are calculated from the specified point(s) of interest to all public transport access points: bus stops, light rail stations, underground stations and Tramlink halts, within pre-defined catchments. The PTAL then incorporates a measure of service frequency by calculating an average waiting time based on the frequency of services at each public transport access point. A reliability factor is added and the total access time is subsequently calculated. A measure known as an Equivalent Doorstep Frequency (EDF) is then produced for each point. These are summed for all routes within the catchment and the PTALs for the different modes (bus, rail, etc) are then added to give a single value.

The measure therefore reflects:

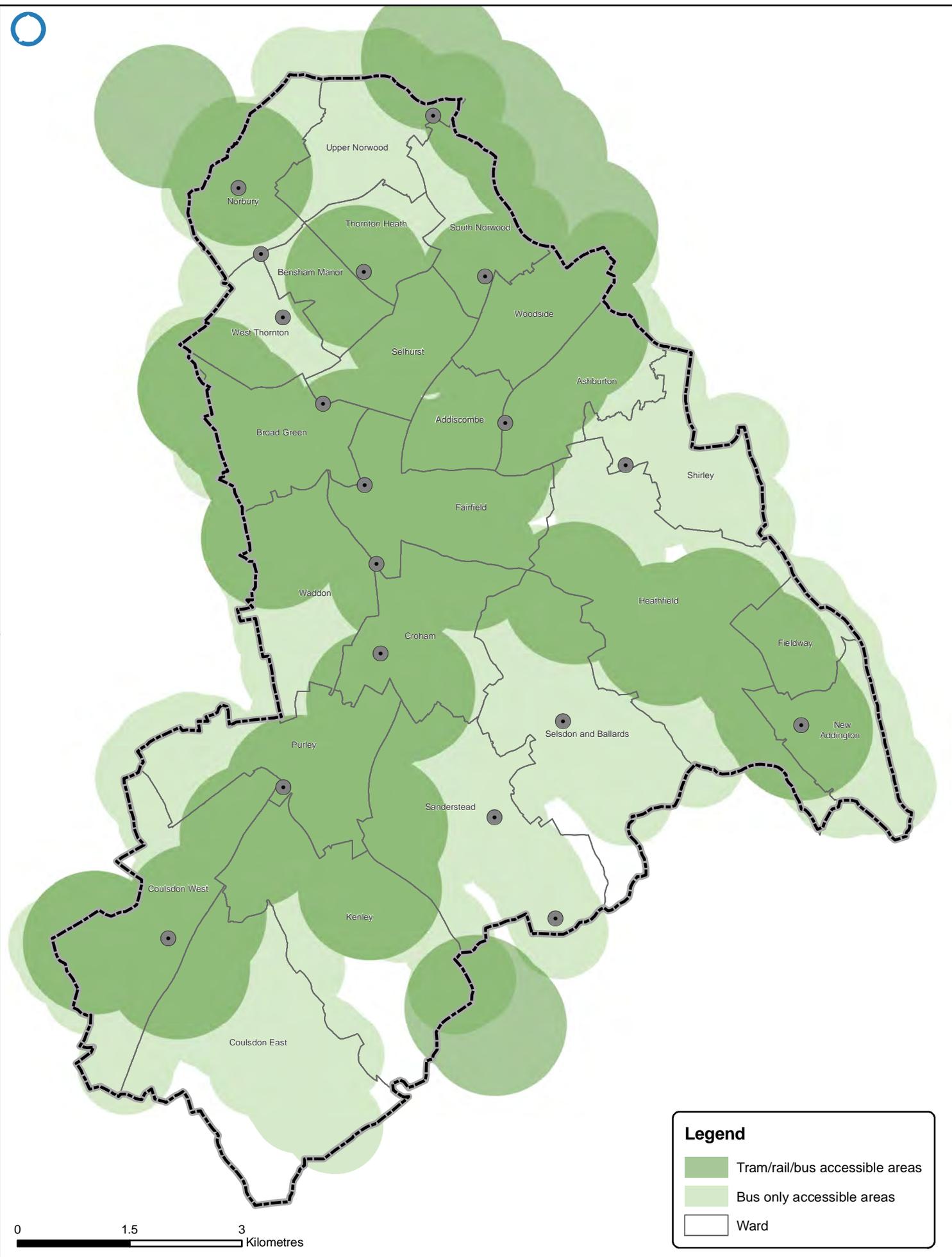
- Walking time from the point-of interest to the public transport access points;
- The reliability of the service modes available;
- The number of services available within the catchment; and
- The level of service at the public transport access points - i.e. average waiting time.

It does not consider:

- The speed or utility of accessible services;
- Crowding, including the ability to board services; or
- Ease of interchange.

The PTAL range is based on 1 being a very poor level of accessibility and 6 being an excellent level.

As expected, public transport services are best around the Metropolitan centre, which has the highest possible level of public transport accessibility. Other areas of high public transport accessibility (PTAL 5 or above) are found in Upper and South Norwood, Brighton Road South and Purley. In terms of a Borough-wide trend, most of the north of the Borough lies within a moderate or above (PTAL 3 to 6) level of public transport accessibility while most of the south and east have low or poor (PTAL 1 to 2) access to public transport services. As the more densely populated areas are in the north of the Borough, this means that a large proportion of the Borough population has moderate to excellent access to public transport services.

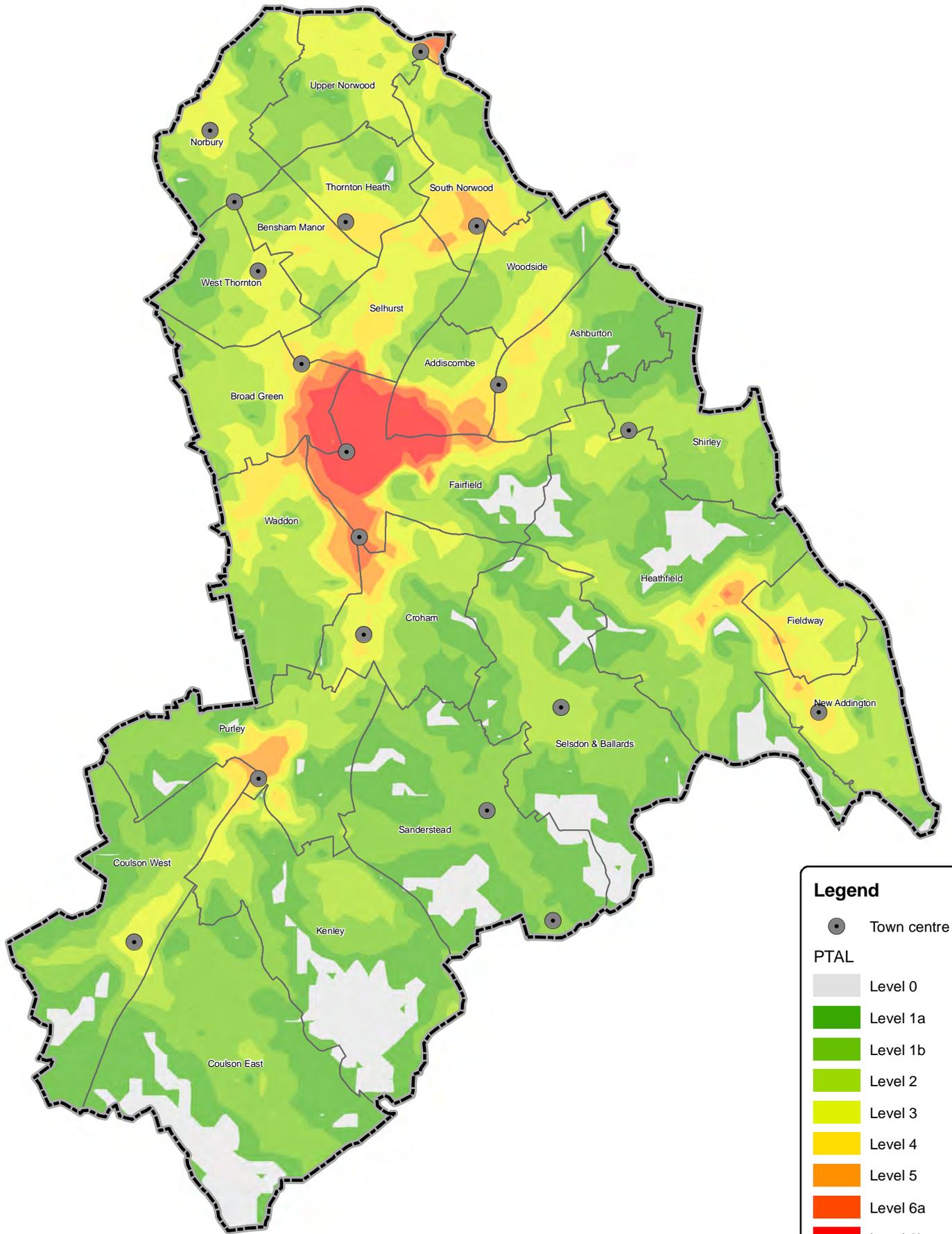


0 1.5 3 Kilometres

Croydon Borough Wide Transport Strategy

Public transport coverage - 10 minute walk catchment

Date	May 2010
Scale	1:65,000 @ A4
Drawn By	TH
Checked By	PL
Figure Number	Figure 4-4



Legend

- Town centre

PTAL

- Level 0
- Level 1a
- Level 1b
- Level 2
- Level 3
- Level 4
- Level 5
- Level 6a
- Level 6b
- Ward

Croydon Borough Wide Transport Strategy

2006 public transport accessibility level (PTAL)

Date	May 2010
Scale	1:65,000 @ A4
Drawn By	TH
Checked By	PL
Figure Number	Figure 4-5

As mentioned previously, PTAL ratings reflect walking time to public transport stops and stations, the number and frequency of service and the reliability of each mode. The rating does not therefore reflect the utility of the service (what facilities you can access using the service provided), crowding on the services and ease of interchange. Again, detailed comment on these factors is made in later chapters, which highlights locations on the public transport network that experience congestion and therefore affect the attractiveness of the service.

Unfortunately, details of bus passenger loading and therefore the level of crowding on bus services have not been available so we are unable to comment in detail on bus service utilisation within the Borough. What Figure 10-6 can show us is that rail services that serve the densely populated northern wards have little spare capacity in the AM peak. This implies that, although public transport accessibility is greatest where it is most required, i.e. where population and therefore demand is greatest, service levels do not appear to be able to match this demand in the most densely populated areas of the Borough.

4.2.3 Private car travel

The public transport accessibility analysis has concluded that density of public transport services is highest in the most densely populated areas, i.e. the northern wards. The wards in the south have low or poor access to these services and large areas of the south are not directly adjacent to public transport interchanges and therefore have further to walk to access fewer services.

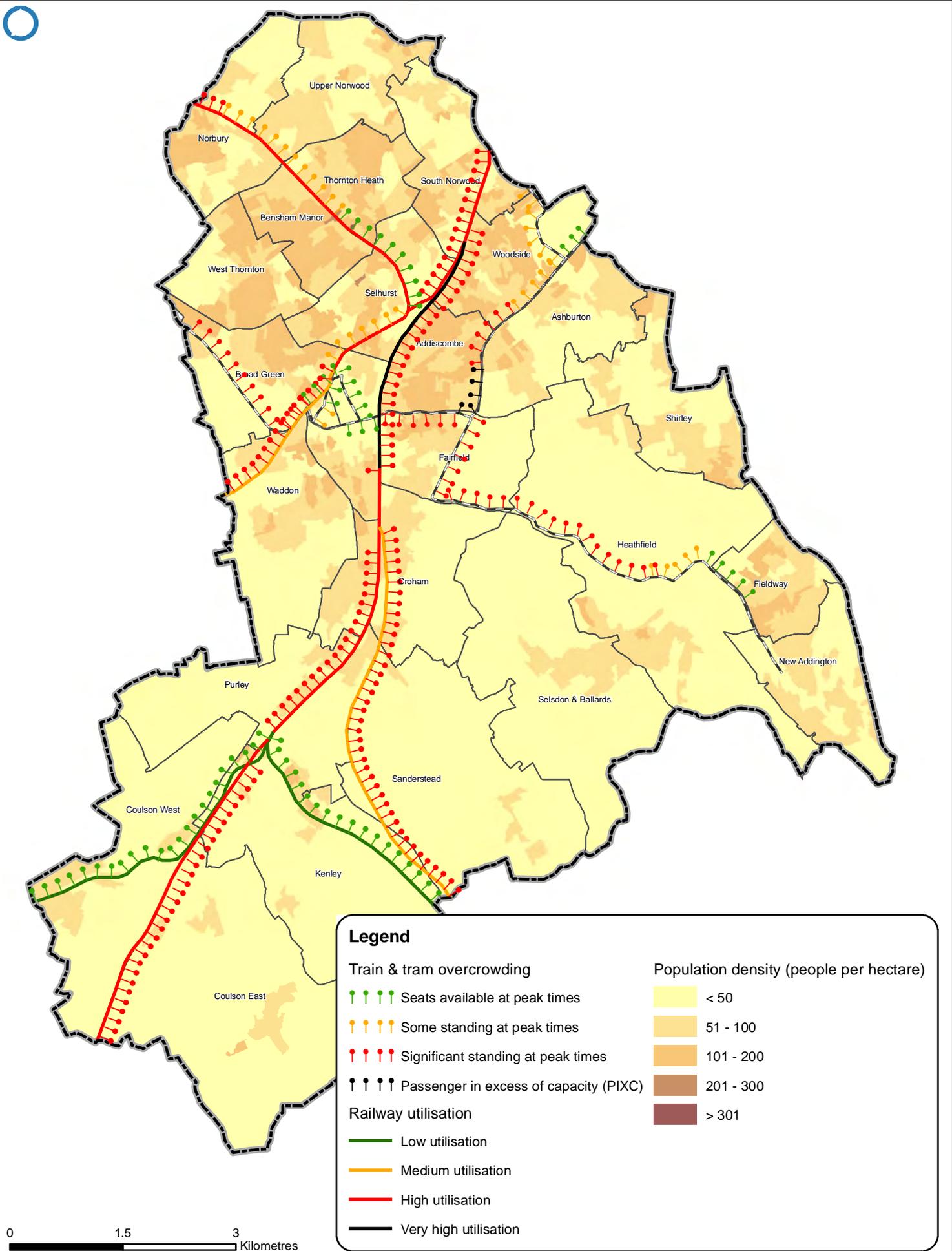
This level of public transport service provision is partially reflected in levels of car ownership in these areas. Figure 4-7 shows car ownership in the Borough is highest in southern wards while in the northern wards 30 per cent of the population or more do not have access to a car. While car ownership is perhaps more closely related to socio-economic factors than levels of public transport provision, the trend for high car ownership in wards with low public transport accessibility cannot be mistaken.

4.2.4 Access to facilities by mode

The previous sections have identified that public transport accessibility is high and car ownership is low in the densely populated northern areas, while the opposite can be said for the less densely populated areas of the southern wards.

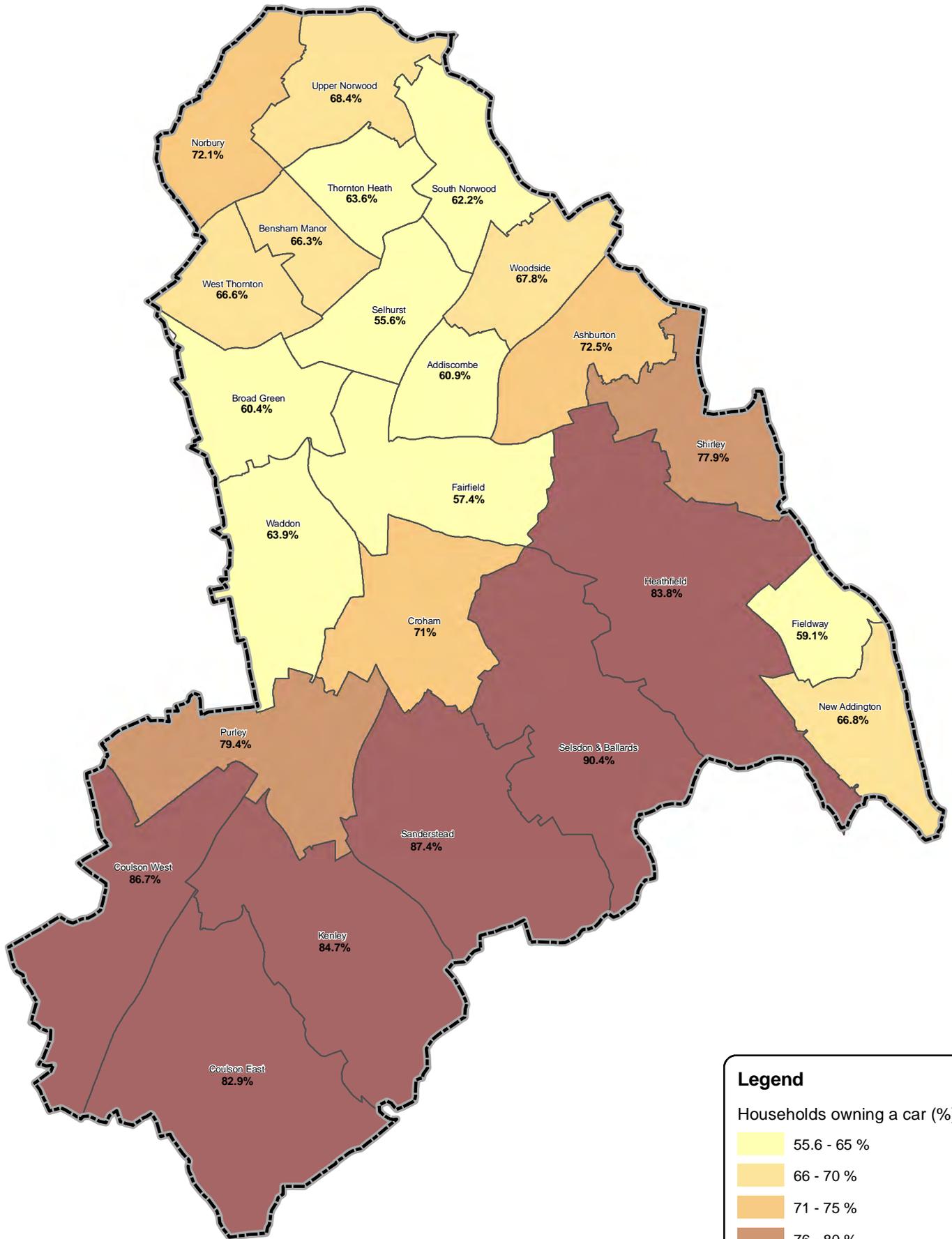
When considering access to local facilities we can assume that access by private car is constrained by road network coverage, congestion on this network and the ability to park at a destination. Although parts of the network do suffer from road congestion, as will be explained in Chapter 8, road network coverage is considerable. In this respect, local facilities can easily be accessed by private car providing parking is available within reasonable distance of a facility.

Unfortunately, details of on-street parking availability across the Borough are unavailable at this time. A comment on the accessibility of facilities by private car would therefore be incomplete without this information. What can be said at this stage is that the 'few' – those living in less populated areas with high car ownership – have good access to facilities by car while the 'many' – those living in densely populated areas with no access to a car – will rely heavily on public transport to access essential local facilities.



Croydon Borough Wide Transport Strategy

Population density and public transport congestion



0 1.5 3 Kilometres

Legend

Households owning a car (%)

- 55.6 - 65 %
- 66 - 70 %
- 71 - 75 %
- 76 - 80 %
- 81 - 90.4 %

Borough Transport Strategy
Draft Final

4.2.5 Access to commercial facilities

Figure 4-8 demonstrated that almost everyone in the Borough has access to a public transport service within a 10 minute walk of their home. In order that the 'many' have access to local facilities, the strategy now needs to consider whether these public transport services provide good access to desirable destinations across the Borough, particularly for those in the northern wards.

Figure 4-8 presents locations of employment and retail (commercial) facilities in comparison with the public transport network. The first feature to notice is that these facilities are not equally spread across the Borough; the focus of the commercial facilities is along the A23 corridor and through the Metropolitan centre and other larger town centres.

These facilities along the A23 corridor south of the Metropolitan centre are located in areas that are not only accessible by car, but also have a good PTAL rating (4 or above).

Some of the employment and retail areas in the north, i.e. around South Norwood and Thornton Heath town centres, have good access by public transport. However, the large number of commercial facilities located on the A23 in Broad Green and north of the Metropolitan centre are in areas of poor public transport accessibility. This promotes travel to work by car in an area of the Borough that has low car ownership and high unemployment.

Large areas of the south and most of the eastern areas have few commercial facilities. With the exception of parts of New Addington and Fieldway, these areas have low or poor public transport accessibility. As mentioned previously, the population living in these areas have high car ownership levels. For this reason, whether residents work or shop locally, in Croydon Metropolitan centre or outside the Borough, the easiest way to travel to reach these facilities from these areas would currently appear to be by car.

4.2.6 Access to non-commercial facilities

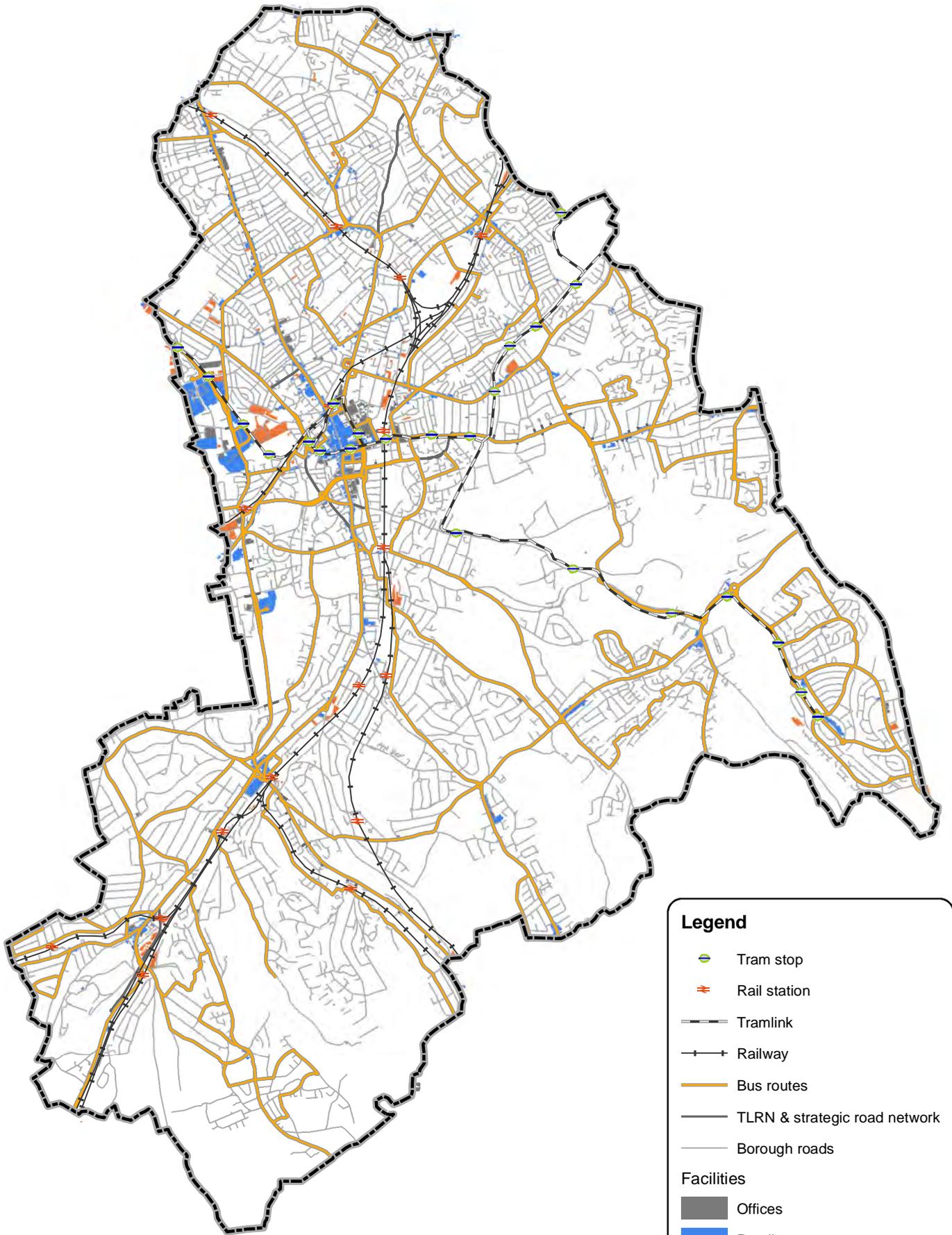
Figure 4-9 plotted the location of 'non-commercial' facilities such as educational establishments, health and leisure facilities.

Unlike the commercial facilities, these facilities are more dispersed throughout the Borough. As educational facilities appear equally dispersed across the Borough, the distance to travel to these facilities could be considered to be similar across the Borough. However, this means that many schools are located in areas of low accessibility by public transport.

While the size of each of these educational facilities will vary, if the strategy considers that northern wards are more densely populated than those in the south and east, it would seem that educational facilities in the north could be under greater stress than those elsewhere.

In the case of institutional facilities, it would appear that provision is better-aligned with population density with more facilities in northern areas than in the south. It is noted that a number of these facilities in the Broad Green and Waddon wards are located in areas of low public transport accessibility.

Borough Transport Strategy
Draft Final



Legend

- Tram stop
- Rail station
- Tramlink
- Railway
- Bus routes
- TLRN & strategic road network
- Borough roads

Facilities

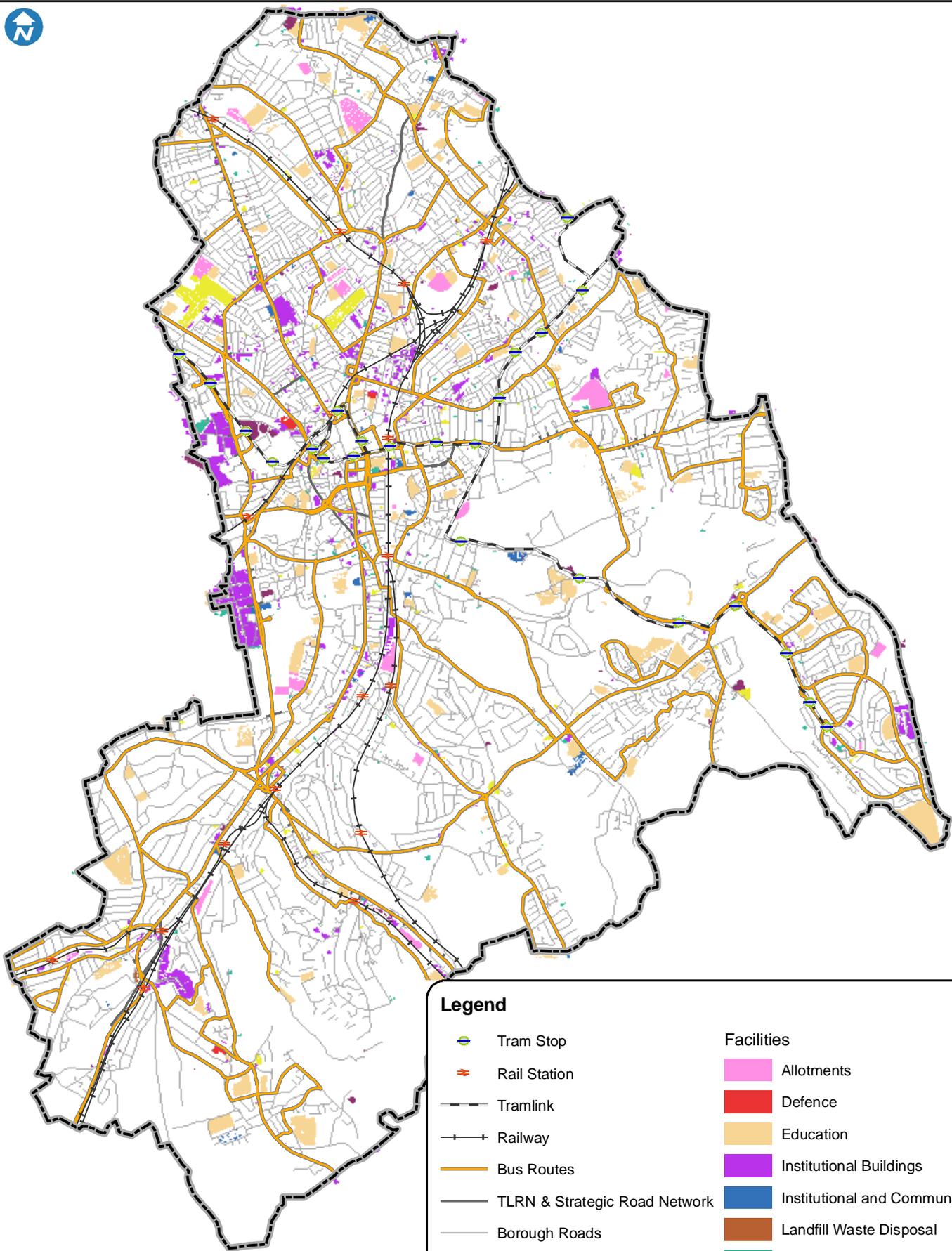
- Offices
- Retail
- Storage and warehousing

0 1.5 3 Kilometres

Croydon Borough Wide Transport Strategy

Commercial facilities and transport networks

Date	May 2010
Scale	1:65,000 @ A4
Drawn By	TH
Checked By	PL
Figure Number	Figure 4-8



Legend

- | | | | | |
|--|-------------------------------|-------------------|----------------------------------|------------|
| | Tram Stop | Facilities | | Allotments |
| | Rail Station | | Defence | |
| | Tramlink | | Education | |
| | Railway | | Institutional Buildings | |
| | Bus Routes | | Institutional and Communal Accom | |
| | TLRN & Strategic Road Network | | Landfill Waste Disposal | |
| | Borough Roads | | Leisure | |
| | | | Religion | |
| | | | Utilities | |

0 1.5 3 Kilometres



Client
CROYDON COUNCIL

Croydon Borough Wide Transport Strategy

Non-Commercial Facilities and Transport Networks

Date January 2010

Scale 1:65,000 @ A4

Drawn By TH

Checked By PL

Figure Number

Figure 4-9

Offices throughout the UK, Ireland, continental Europe, Africa, Asia and Australia.
www.pba.co.uk
Peter Brett Associates LLP
LONDON
Tel: 0207 268 6600 Fax: 0207 268 6533

Reproduced from based upon Ordnance Survey material with the permission of Ordnance Survey © on behalf of The Controller of Her Majesty's Stationery Office. Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Licence No. 100021575. Year of Publication 2009. Owner/Purchaser of Mapping.

4.3 What are the options for change?

4.3.1 Net population change and constraints

Figure 4-11 and Figure 4-12 show the projected net population change by ward along with the road network and public transport issues and constraints while Figure 4-13 and Figure 4-14 show this population change in comparison with the location of existing facilities. In the following sections the strategy considers these maps by area.

Northern wards

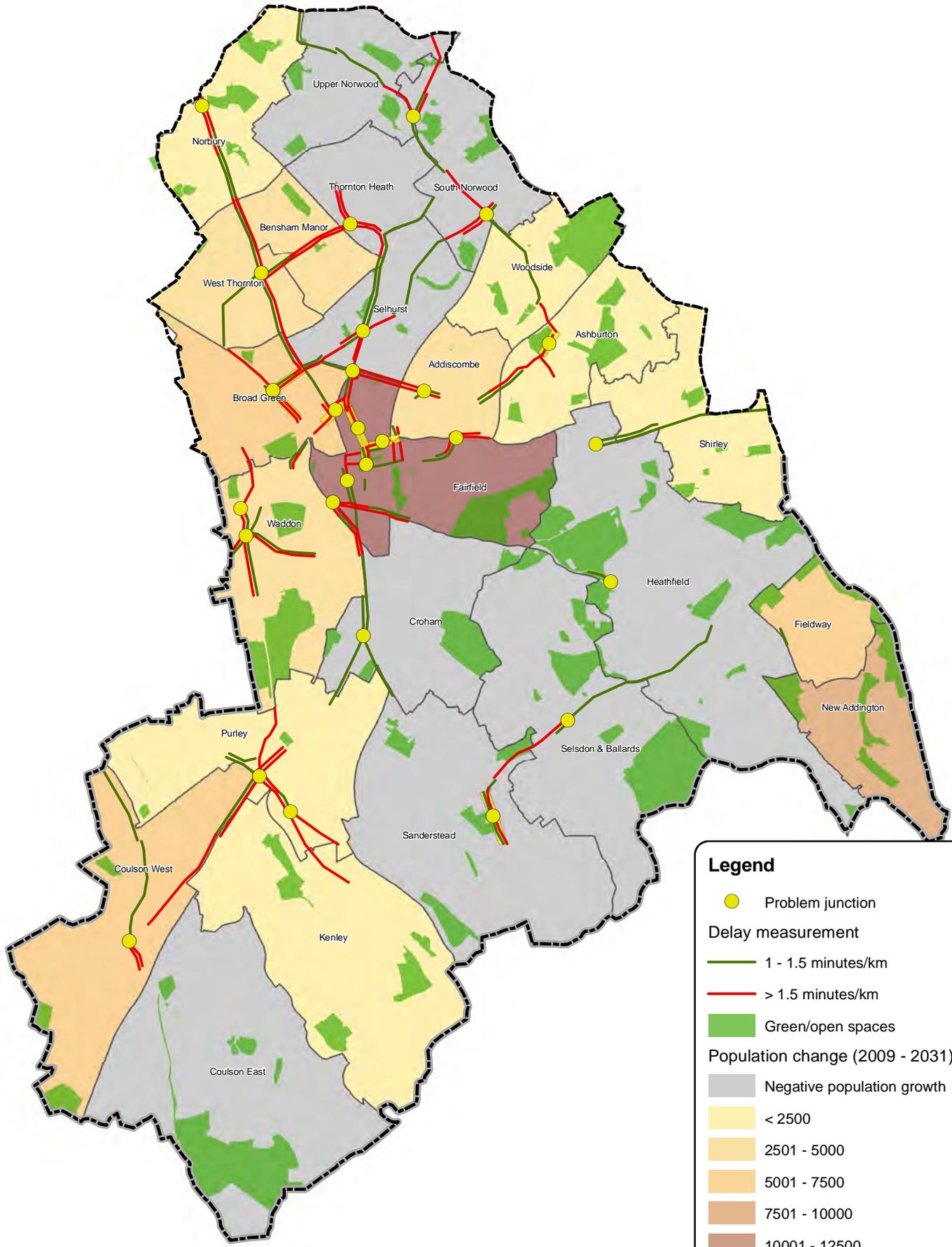
With regard to the road network map, with the exception of the growth in New Addington, the wards that are expected to experience most growth coincide with the areas that currently experience peak hour network delays.

As has been identified, the A23 corridor north of the Metropolitan centre is already densely populated, has a number of commercial facility destinations and has low public transport accessibility. While existing trends suggest that residents in this area have lower car occupancy, it would still appear that growth along this corridor has a likelihood of negatively impacting on an already constrained road network. Investment in public transport infrastructure along this route would therefore seem to be necessary.

The majority of educational facilities in northern wards appear to be located in those wards that are expected to experience a net reduction in population. Whilst this may lead to reduced stress on these facilities from residents inside these wards, the fact that growth will occur in wards with fewer educational facilities could mean people will have to travel greater distances to school. In addition, as these northern growth wards currently have low public transport accessibility, people forced to travel eastwards for educational purposes may find it easier to do so by private car.

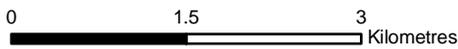
In considering this potential preference to travel eastwards from the northern growth wards to school by private car, it must be remembered that many people currently in these wards do not have access to a car.

Key issues for northern wards: *local bus services are likely to be a primary means of transportation for local movements. With the expected increase in young people proportionately in the BME community, bus services carrying school children could experience additional strain in the AM peak. The placement of new facilities must be mindful of the localised increases in population and existing public transport accessibility.*



Legend

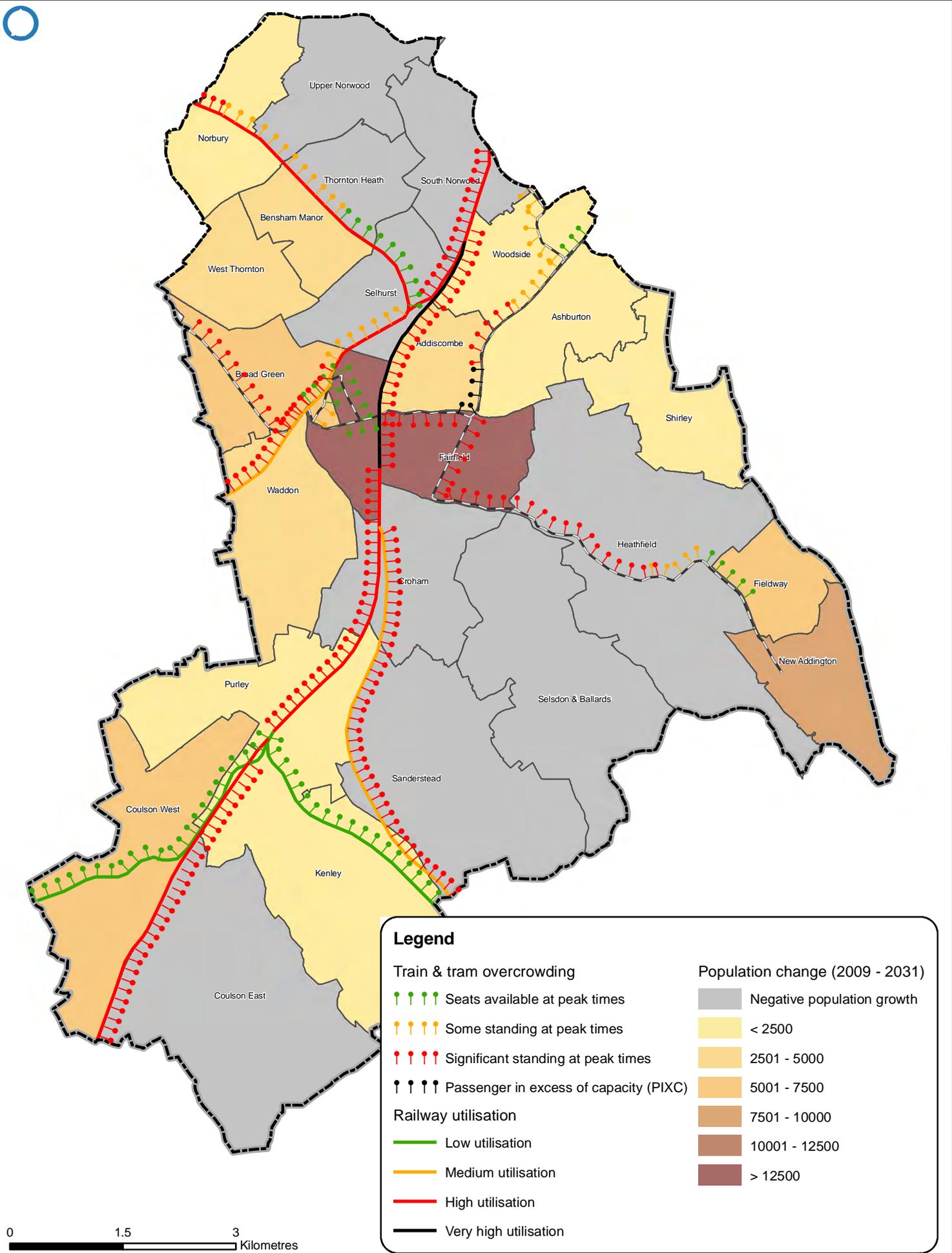
- Problem junction
- Delay measurement**
- 1 - 1.5 minutes/km
- > 1.5 minutes/km
- Green/open spaces
- Population change (2009 - 2031)**
- Negative population growth
- < 2500
- 2501 - 5000
- 5001 - 7500
- 7501 - 10000
- 10001 - 12500
- > 12500



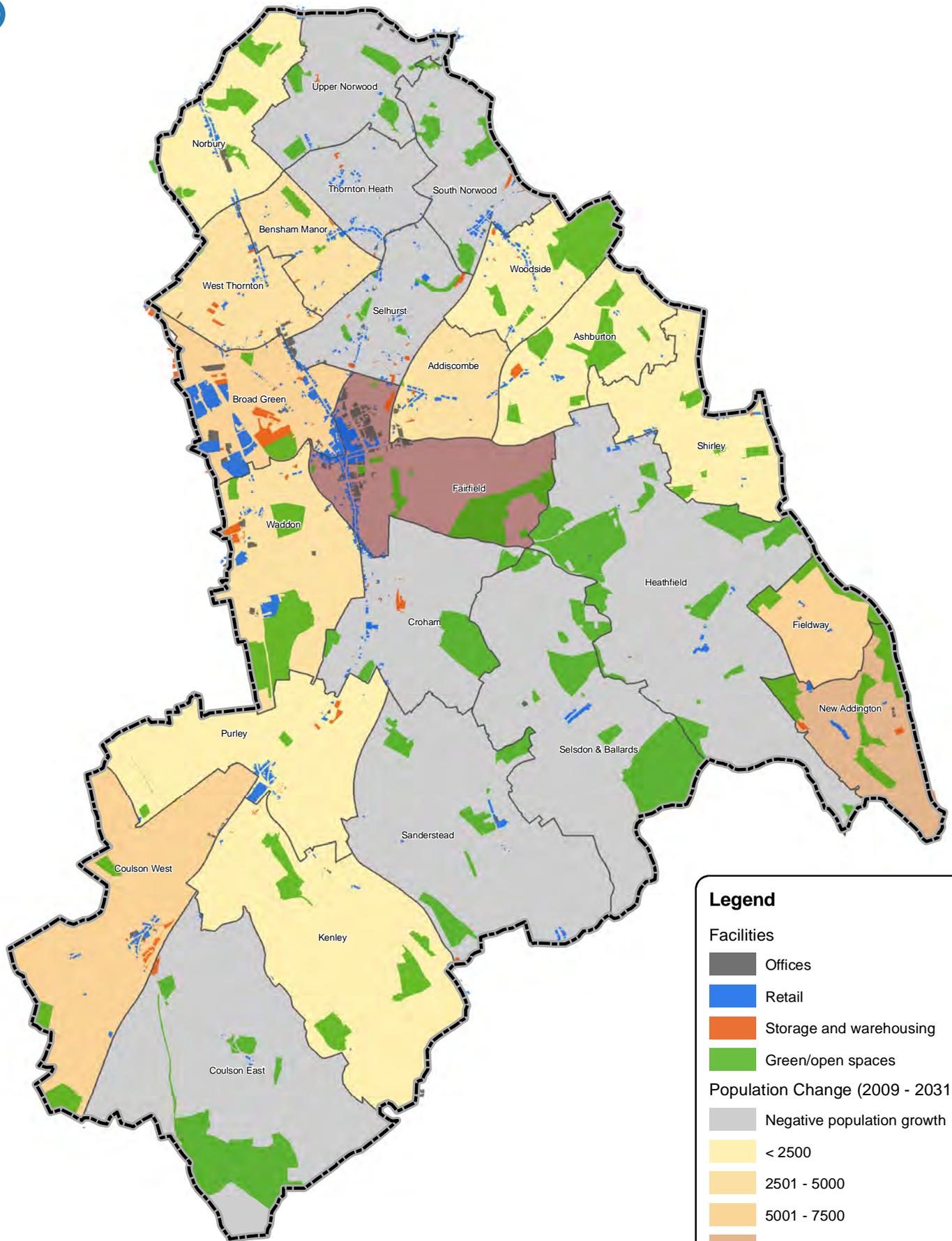
Croydon Borough Wide Transport Strategy

Net population change and road network constraints

Date	May 2010
Scale	1:65,000 @ A4
Drawn By	TH
Checked By	PL
Figure Number	Figure 4-11



0 1.5 3 Kilometres



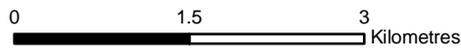
Legend

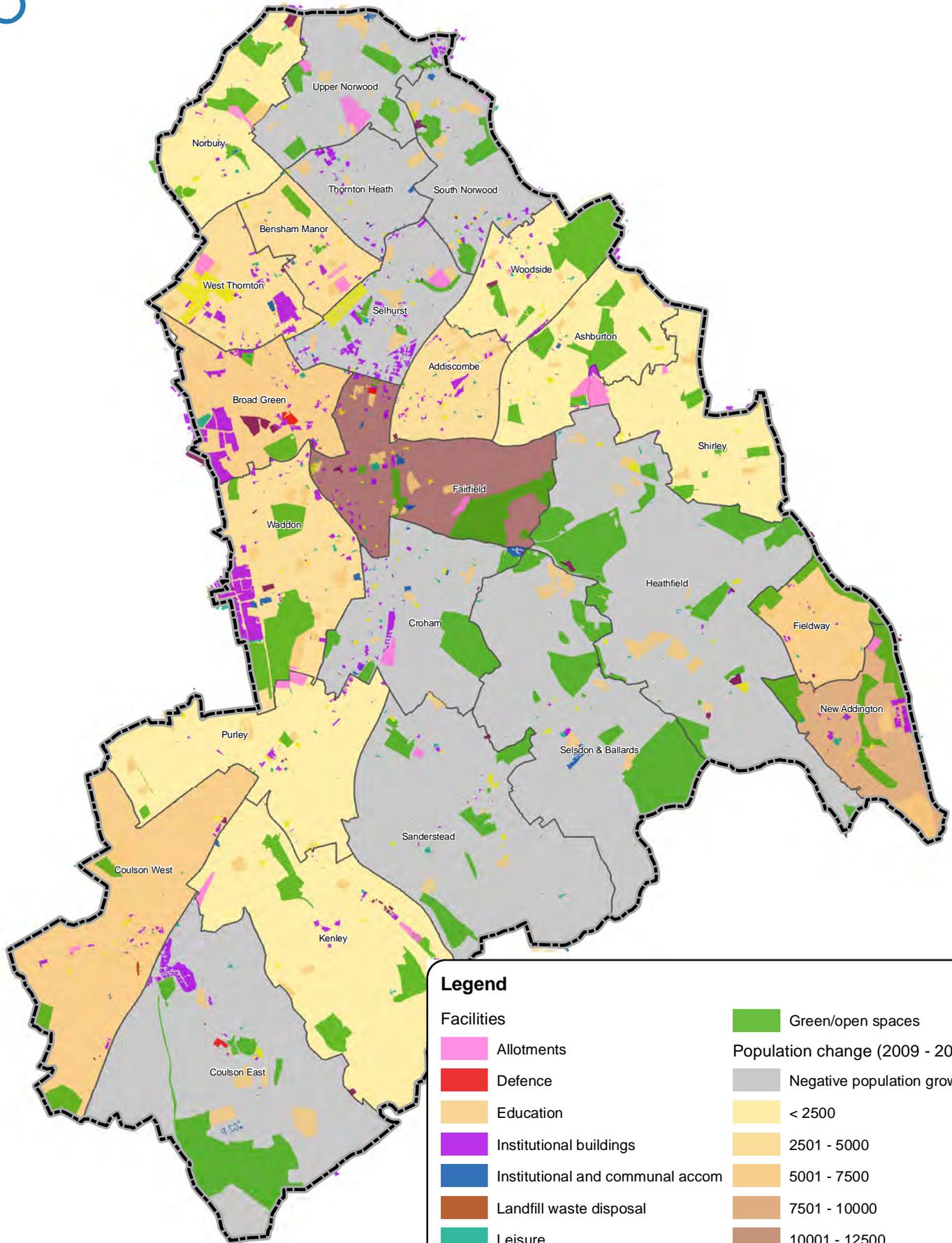
Facilities

- Offices
- Retail
- Storage and warehousing
- Green/open spaces

Population Change (2009 - 2031)

- Negative population growth
- < 2500
- 2501 - 5000
- 5001 - 7500
- 7501 - 10000
- 10001 - 12500
- > 12500





0 1.5 3 Kilometres

Legend

Facilities

- Allotments
- Defence
- Education
- Institutional buildings
- Institutional and communal accom
- Landfill waste disposal
- Leisure
- Religion
- Utilities

Green/open spaces

Population change (2009 - 2031)

- Negative population growth
- < 2500
- 2501 - 5000
- 5001 - 7500
- 7501 - 10000
- 10001 - 12500
- > 12500



Client
CROYDON COUNCIL

Croydon Borough Wide Transport Strategy

Net population change and location of non-commercial facilities

Date May 2010

Scale 1:65,000 @ A4

Drawn By TH

Checked By PL

Figure Number

Figure 4-14

Offices throughout the UK, Ireland, continental Europe, Africa, Asia and Australia
www.pba.co.uk
Peter Brett Associates LLP
LONDON
Tel: 0207 268 6500 Fax: 0207 268 6533

Reproduced from based upon Ordnance Survey material with the permission of Ordnance Survey © on behalf of The Controller of Her Majesty's Stationery Office. Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Licence No. 100021575. Year of Publication 2009. Owner/Purchaser of Mapping.

Croydon Metropolitan Centre

The same principles apply to the Metropolitan centre where the most significant population, employment and retail growth is expected. If travel by car by residents in the centre or visitors to the centre is facilitated by permitting the provision of parking at new residential and commercial developments, the road network delays currently experienced can only become worse.

The public transport network constraints map (Figure 4.6) suggests that the rail and tram services are overcrowded once they reach the Metropolitan centre and that line utilisation, for the rail services at least, is already very high. Squeezing more people onto these modes without significant expansion of capacity would therefore seem difficult. Key public transport infrastructure improvements in the Metropolitan centre are therefore required.

With an increase in residential population will also come an increase in employment and retail facilities for the centre. However, the map of non-commercial facilities (Figure 4-2) in the town centre perhaps illustrates that the current offering may result in residents travelling out of the centre to meet their requirements.

Key Issues for the Metropolitan Centre: while residential population growth centred on the Metropolitan centre is supported by TfL and the GLA, there will undoubtedly be a need to provide more local services and facilities. Constraints on all modes of transport means a significant infrastructure investment will be required to support growth aspirations.

New Addington

Aside from the Metropolitan centre, New Addington is also expected to support significant growth. This proposal would appear to be backed up by the evidence of limited network congestion in this area, with no significant road traffic delay and spare capacity on the tram network in peak periods. The PTAL rating for New Addington town centre is the highest in the east of Croydon due to the presence of the tram.

However, as has been determined, the tram network becomes congested as it reaches the Metropolitan centre. If the new population of New Addington are drawn to travel into the Metropolitan centre for work or retail needs the tram will be their best option for travel. If these journeys are made during peak travel times it will inevitably cause further congestion westbound from Gravel Hill onwards.

In addition, this increase in population has been proposed in an area that is considered one of the most deprived in the Borough in terms of unemployment, training skills, income and the living environment. Therefore the type of housing and population growth needs careful consideration.

Key Issues for New Addington: *Although the local transport services suggest spare capacity for development, the impact on service capacity further a field must be considered. In addition, the living environment requires improvements and the issue of a continued lack of local employment opportunities for a population with a low skills base must be considered.*

Coulsdon & Purley

Rail services through Coulsdon and Purley are already very busy during peak times with significant numbers of standing passengers suggesting that population growth in these areas could not be supported by rail alone.

Since this area is high in car ownership and relatively low in public transport accessibility new residents are likely to prefer to travel by car, without a concerted effort to make bus travel more attractive. Coulsdon town centre and, in particular, the Purley Way Gyratory experience peak period road congestion, the latter causing a bottleneck on the A23.

While the A23 corridor from Coulsdon town centre to the Metropolitan centre benefits from being a high frequency bus corridor, the Purley gyratory does inhibit bus movement through this area.

Key Issues for Coulsdon and Purley: *if sustainable development is to be achieved in this area a step change towards travel by modes other than the car is required. Rail capacity enhancements are a requirement if this mode is to help facilitate this change. To ease or mitigate increased congestion on the A23 corridor in terms of local movements by private car investment in significant supplementary public transport modes along this route may be necessary.*

Other South & South Eastern Wards

These areas of low population density and high travel demand by private car are expected to experience a population decline in comparison with other parts of the Borough.

Public transport accessibility in these areas is low and access to local facilities is likely to be mostly achieved through use of the private car. Facilities are spread out in these areas further encouraging the use of the car.

Key Issues for other South and South Eastern Wards: *with a potentially declining population, investment in additional public transport services is unlikely. However, in an area where travel by car is necessary to access local and Borough-wide facilities, initiatives such as car clubs and school bus services could help remove car trips from the network.*

4.3.2 Provision of housing

Table 4-1 shows the projected completions of new homes in Croydon over the period 2009-2031. The data is based on the Housing Land Availability (SHLAA) data presented in Figure 3-6 except for OAPF area that is based on calculations previously done for the former Croydon Metropolitan Centre Area Action Plan. The range of new homes completed between 2021 and 2031 will depend on the type of housing mix (i.e. family housing/social/market/rented).

Within the AOPF area growth in housing would appear to match the expected growth in population. However, for some areas outside the OAPF area, indicated by the red figures in Table 4-1, a comparison of population and housing growth predictions suggests a potential shortfall in housing. These areas are as follows:

- **Bensham Manor:** this ward is currently among the most densely populated in the Borough. Between 2021 and 2031 the population of Bensham Manor is predicted to rise by around 3,200. In this time between 103 and 160 houses are forecast to be completed. During this period the population of neighbouring Selhurst is expected to decrease by over 2,000 while between 325 and 508 new houses would be built;
- **Ashburton:** net population growth between 2009 and 2021 is expected to be low while around 130 new houses are forecast. However, the population is forecast to rise by around 1,900 people between 2021 and 2031 while around 64-128 new houses are expected to be completed in this period suggesting an overall shortfall between 2009 and 2031;
- **West Thornton:** this ward is expected to experience a population increase of around 3,200 between 2009 and 2031 during which time between 523 and 615 new houses are forecast;
- **Fieldway and New Addington:** a significant number (between 942 and 958) of new houses are forecast for this region between 2009 and 2031. However, population during this period is forecast to rise by around 14,000.

Borough Transport Strategy

Draft Final

Table 4-1: Housing growth by ward 2009-2031

Area	Ward	2009-2011	2011-2021	2021-2031	2009-2031	Area Total
AOPF	Part of Fairfield, Addiscombe and Broad Green	611	5,784	3,708	10,103	10,103
Northern	Norbury	11	324	122 – 228	457 – 563	2,354 – 2,932
	Upper Norwood	55	308	145 – 248	508 – 611	
	South Norwood	65	446	330 – 553	841 – 1,064	
	Thornton Heath	7	318	223 – 369	548 – 694	
North Central	Bensham Manor	6	136	103 – 160	245 – 302	1,890 – 2,308
	Selhurst	213	464	325 – 508	1,002 – 1,185	
	Addiscombe	58	357	228 – 406	643 – 821	
North East	Woodside	20	335	190 – 357	545 – 712	842 – 1,103
	Shirley	0	73	31 – 61	104 – 134	
	Ashburton	1	128	64 – 128	193 – 257	
Central	Fairfield	23	210	143 – 213	376 – 446	376 – 446
Eastern	Broad Green	1,023	334	1,264 – 1,300	2,621 – 2,657	5,127 – 5,506
	West Thornton	75	272	176 – 268	523 – 615	
	Waddon	78	493	535 – 695	1,106 – 1,266	
	Purley	28	716	133 – 224	877 – 968	
West	Fieldway	14	18	509 – 518	541 – 550	942 – 958
	New Addington	2	93	306 – 313	401 – 408	
South Central	Croham	85	335	201 – 345	621 – 765	941 – 1,144
	Heathfield	0	32	16 – 32	48 – 64	
	Selsdon and Ballards	0	118	17 – 33	135 – 151	
	Sanderstead	15	67	55 – 82	137 – 164	
Southern	Kenley	21	437	71 – 141	529 – 599	1,924 – 2,093
	Coulsdon West	13	1,118	111 – 196	1,242 – 1,327	
	Coulsdon East	0	138	15 – 29	153 – 167	
Total		2,424	13,054	9,021 – 11,115	24,499 – 26,593	24,499 – 26,593

Source: LB Croydon

4.3.3 Provision of housing and facilitates in the CMC

Table 4-2 presents the interim growth projections for the Metropolitan Centre provided by the Borough in February 2010. Again the data has been provided for two scenarios that assume different levels of investment and concentration of growth in the Metropolitan Centre.

Table 4-2: CMC proposed development scenarios

Land Use	Existing + Growth to 2011	Scenario A			Scenario B		
		2011-2021	2021-2031	Total	2011-2021	2021-2031	Total
Residential (units)	4,000	+10,000	+10,240	+20,240	+10,000	+11,970	+21,970
Offices (m2)	334,073	+197,600	+90,100	+287,700	+197,600	+135,150	+332,750
Retail (m2)	183,246	+50,000	0	+50,000	+50,000	+50,000	+100,000
Services (m2)	30,099	+3,298	+3,298	+6,596	+3,298	+3,298	+6,596

Source: LB Croydon

The Draft Replacement London Plan housing target for the Borough is 13,000 new homes by 2021 with an annual target of 1,330 per annum thereafter (i.e. 13,300 between 2021 and 2031). It is proposed that the Metropolitan Centre will 10,000 (77% of the Borough total) of the 13,000 new homes by 2021. Scenario A assumes that 77% of the 13,300 to be required between 2021 and 2031 would also be provided in the CMC. Scenario B assumes 90% between 2021 and 2031 with the assumption that the Metropolitan Centre will have considerable more opportunity for new housing compared with the rest of the Borough. These scenarios would mean an increase of between 20,000 and 22,000 new homes between 2011 and 2031 compared to the existing number of 4,000.

The office floorspace projections are those from the 2007 PACEC Croydon Office Market Study “partially constrained projections” and are considered the minimum if the Metropolitan Centre is to fulfil its potential as a Strategic Office Location and include private and public sector floorspace although the figures for the latter are due to decline. Scenario B assumes a uniform growth after 2026 while Scenario A assumes a halving of the 2021-26 growth in that period. In the absence of any extant planning permissions for office space outside of the Metropolitan Centre it is assumed that all the growth in office floorspace within the Borough will occur within the Metropolitan Centre.

The retail floorspace predictions are extracted from the Drivers Jonas study (2007) for retail floorspace requirements up to 2021, primarily resulting from reconfiguration within the Core Retail Area. Scenario A assumes no growth beyond 5 years as estimates beyond 5 years need to be treated with particular caution. Scenario B assumes replicated growth for the following ten years on the basis that the improvement in the image of the Metropolitan Centre would enable it to continue to attract quality retail offer to meet the growth in need. These estimates do not include future convenience floorspace figures which may exceed existing supply due to the growth in housing. Convenience floorspace estimates were excluded from the figures provided to us on the basis that it was assumed to be unlikely that the convenience stores would attract trips from outside the Metropolitan Centre on their own.

The ‘Services’ – mainly cafes, travel agents and banks – are also extracted from the Drivers Jonas study with figures extrapolated up to 2031. It is worth noting that, while the number of residential units

is expected to increase five-fold between 2011 and 2031 with office space almost doubling and potentially growing between a quarter and a half the level of service provision is expected to only grow by around 20%.

4.3.4 Public transport accessibility improvements

Figure 4-15 shows the forecast PTAL map for Croydon for 2016 as calculated by Transport for London.

In compiling this map TfL have made the following assumptions with regards to changes in public transport services across all of London between now and 2016:

- **Bus frequencies:** Includes an overall increase in bus frequencies of 2.5 per cent. In terms of PTAL this will translate to only a small change in PTAL values, raising an area by one PTAL level only where the index value is already near the threshold;
- **Transit schemes:** Assumes both the East London Transit and Greenwich Waterfront Transit Phase 1 works have been implemented – although development of GWT has subsequently been abandoned. As these schemes will operate in areas currently poorly served by public transport, PTALs in the areas affected will rise between 1 and 2 levels;
- **Crossrail:** included in the 2016 scenario although scheduled for opening in 2017. In outer London values will rise by one PTAL level;
- **Rail:** HLOS enhancements will result in some increases in PTALs at locations near the affected stations though the majority of changes relate to capacity increases rather than increases in service frequency.

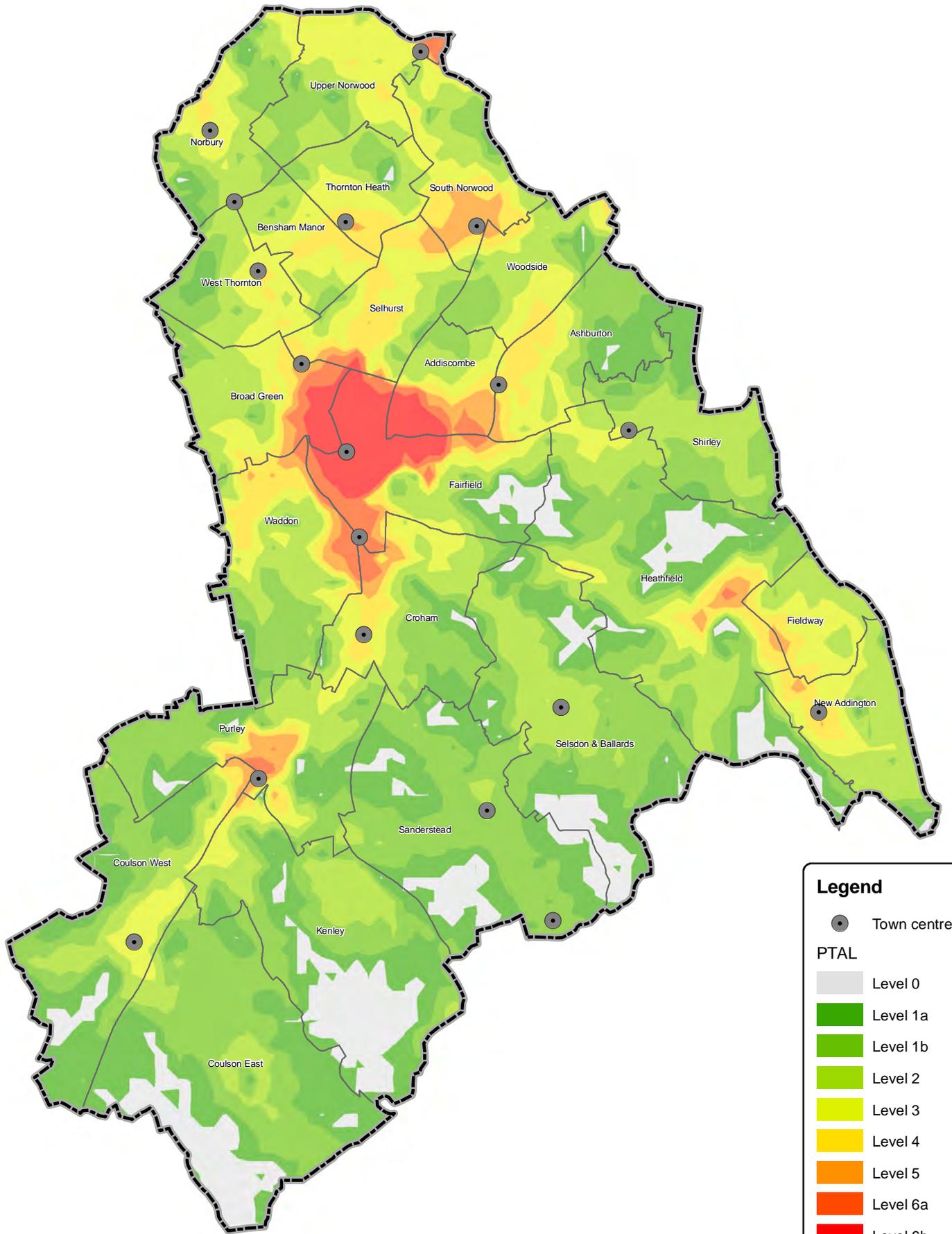
If this is compared to the 2001 PTAL map in Figure 4.5 improvements in PTAL values at some locations can be clearly seen. Areas around the Metropolitan centre within a PTAL 5 score have increased, notably within Waddon where a number of potential sites for population growth have been identified. Addiscombe and Selhurst also benefit with a rise to PTAL 5 in some areas.

Areas in the north of the Borough around South Norwood and Thornton Heath town centres are also expected to lie within a PTAL 5 catchment in future. Interestingly, these areas coincide with wards that are expected to experience a decrease in population between now and 2031.

To the east, parts of New Addington and Fieldway are set to increase from PTAL 3 to 5 and 6 while areas with PTAL 4 will be increased. This will be important considering the significant population increase expected in this area.

To the south, PTAL values around Purley town centre will improve. Otherwise, PTALs in the south and east of the Borough are set to remain low at PTAL 1 and 2 with little improvement.

PTAL in the Broad Green ward where population increase is expected to be one of the highest outside of the Metropolitan centre is expected to remain low.



0 1.5 3 Kilometres

Legend

- Town centre

PTAL

- Level 0
- Level 1a
- Level 1b
- Level 2
- Level 3
- Level 4
- Level 5
- Level 6a
- Level 6b
- Ward

pba
peterbrett

Offices throughout the UK, Ireland, continental Europe, Africa, Asia and Australia

www.pba.co.uk

Peter Brett Associates LLP
LONDON

Tel: 0207 268 6500 Fax: 0207 268 6533

Client
CROYDON COUNCIL

Reproduced from based upon Ordnance Survey material with the permission of Ordnance Survey (©) on behalf of The Controller of Her Majesty's Stationery Office. Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. License No. 100021575. Year of Publication 2009. Owner/Purchaser of Mapping.

Croydon Borough Wide Transport Strategy

Predicted 2016 public transport accessibility level (PTAL)

Date	May 2010
Scale	1:65,000 @ A4
Drawn By	TH
Checked By	PL
Figure Number	Figure 4-15

