



Blackburn with Darwen Borough Council, Local Cycling and Walking Infrastructure Plan

Baseline Data Report

March 2022

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1 Introduction

1.1 Background

1.1.1 Local Cycling and Walking Infrastructure Plans (LCWIPs), as set out in the Government’s Cycling and Walking Investment Strategy (CWIS), are a new, strategic approach to identifying walking, cycling and wheeling improvements required at the local level. They enable a long-term approach to developing local cycling and walking networks, typically over a 10-year period, and form a vital part of the Government’s strategy to increase the number of trips made on foot or by cycle.

1.1.2 The key outputs of LCWIPs are:

- a network plan for walking and cycling which identifies preferred routes and core zones for further development;
- a prioritised programme of infrastructure improvements for future investment; and
- a report which sets out the underlying analysis carried out and provides a narrative which supports the identified improvements and network.

1.1.3 By taking a strategic approach to improving conditions for cycling and walking, LCWIPs will assist Local Authorities (LAs) to:

- identify cycling and walking infrastructure improvements for future investment in the short, medium and long term;
- ensure that consideration is given to cycling and walking within both local planning and transport policies and strategies; and
- make the case for future funding for walking and cycling infrastructure.

1.2 LCWIP Process

1.2.1 The Department for Transport (DfT) has produced guidance to develop a LCWIP; this defines 6 distinct stages in the production of an LCWIP, as outlined in Table 1.1 below.

Table 1.1 – LCWIP Process

Stage	Name	Description
1	Determining Scope	Establish the geographical extent of the LCWIP, and arrangements for governing and preparing the plan.
2	Gathering Information	Identify existing patterns of walking and cycling and potential new journeys. Review existing conditions and identify barriers to cycling and walking. Review related transport and land use policies and programmes.
3	Network Planning for Cycling	Identify origin and destination points and cycle flows. Convert flows into a network of routes and determine the type of improvements required.
4	Network Planning for Walking	Identify key trip generators, core walking zones and routes, audit existing provision and determine the type of improvements required.
5	Prioritising Improvements	Prioritise improvements to develop a phased programme for future investment.
6	Integration and Application	Integrate outputs into local planning and transport policies, strategies, and delivery plans.

1.2.2 The Blackburn with Darwen LCWIP will be split into two distinct phases:

- Phase 1: Evidence review and network development, reflecting Stages 1 to 4 of the LCWIP guidance.
- Phase 2: Development of network priorities into 'bid-ready' schemes, commensurate with Stage 5 of the LCWIP guidance.

1.2.3 The two project reports will be taken forward for integration and application (Stage 6 of the LCWIP guidance) within Blackburn with Darwen Borough Council's wider policy and strategic frameworks.

1.2.4 It is currently anticipated that separate Phase 1 and Phase 2 reports shall be prepared for the areas of the borough north and south of the M65 motorway and are to be referred to as the Blackburn study area and Darwen study area.

1.2.5 It should be noted that this baseline report has been prepared in advance of the Network Planning Reports and some of the data and information presented may be superseded. Where appropriate the most up to date data shall be used to inform the subsequent stages of the LCWIP preparation and any future updates.

1.3 Report Purpose

1.3.1 This Baseline Data Report covers Stages 1 and 2 of the LCWIP process set out above in that it:

- defines the geographical extent of the LCWIP, and sets out the arrangements for governing and preparing the plan;
- identifies existing patterns of walking and cycling and potential new journeys;
- reviews existing conditions;
- identifies barriers to cycling and walking; and
- reviews related transport and land use policies and programmes.

1.3.2 The culmination of this work is an evidence base that supports and informs development of the Blackburn with Darwen LCWIP, helping to define network connections and emerging priorities.

1.3.3 A detailed desktop research exercise has been undertaken to help establish the baseline situation and understand future trends, considering available datasets, policies and strategies. However, to ensure that the LCWIP and the resulting network plans are founded on robust evidence, this research has been supplemented by a range of data collection and consultation exercises, including:

- Site Visits: Undertaken on foot and cycle to understand travelling around the study area as vulnerable road users.
- Stakeholder Workshops: A number of stakeholder workshops have taken place with officers of Blackburn with Darwen Borough Council and selected community representatives in order to gain their input on the challenges and opportunities related to cycling and walking in the study area.
- Public Consultation: Blackburn with Darwen Borough Council is currently undertaking an online public consultation on Walking and Cycling utilising an interactive map. The consultation calls on residents, and those who travel through the borough, to provide their ideas, comments and concerns on the use of the existing network and to propose new schemes / improvements. The intention is to use the ideas, comments and concerns to inform the development of the LCWIP.
- Meetings / Conference Calls: As well as the stakeholder workshop, the project team have liaised with key internal stakeholders from BwDBC and attended workshops with neighbouring local authorities within Lancashire to gain a detailed insight to the work done relating to walking and cycle network planning and cross boundary issues and connectivity.

- Meeting with BwDBC staff as both the local planning authority and highway authority also provided an opportunity to understand proposed and committed developments in the study area that may impact and influence the final network.

1.3.4 Further consultation and stakeholder engagement shall be undertaken as part of the network planning stages of preparing the LCWIP.

1.4 Report Structure

1.4.1 This baseline report details Stages 1 and 2 of the Blackburn with Darwen LCWIP and is structured as follows:

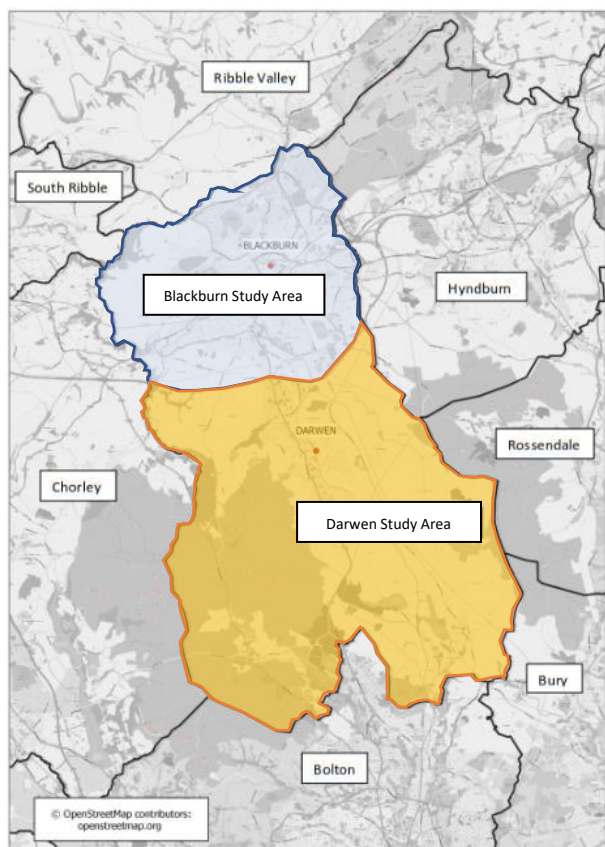
- Section 2: Scope
- Section 3: Policy Context;
- Section 4: Local Geography
- Section 5: Demographics;
- Section 6: Existing Travel Patterns;
- Section 7: Existing Transport Networks: Cycling and Walking;
- Section 8: Existing Transport Networks: Road, Rail and Public Transport;
- Section 9: Origins and Destinations; and
- Section 10: Future Situation (Developments, Infrastructure and Forecasting Growth)

2 Scope

2.1 Defining the Study Area

- 2.1.1 The borough of Blackburn with Darwen is situated in the north-west of England. Together with Burnley, Hyndburn, Pendle and Rossendale, it forms part of the Pennine Lancashire sub-region and combined with Ribble Valley forms 'East Lancashire'.
- 2.1.2 Blackburn with Darwen Borough Council borders with a number of other local authorities (Chorley, South Ribble, Ribble Valley, Hyndburn and Rossendale) within Lancashire and the Unitary Authority areas of Bolton Metropolitan District Council and Bury Metropolitan Borough Council, both within Greater Manchester.
- 2.1.3 The focus of the LCWIP process is to create a cohesive network for walking and cycling that will encourage those who do not currently walk or cycle for everyday purposes to do so, generally aligning with travel for commuting and utility purposes over shorter distances. Links between urban areas are often less likely to promote the desired modal shift, with greater benefits obtained through the provision of a denser urban network, connecting residential areas with a range of employment opportunities, schools, shops and facilities within a desirable walking or cycling distance.
- 2.1.4 The Blackburn with Darwen LCWIP will therefore focus on the towns of Blackburn and Darwen as the main urban areas and encompass nearby villages considered to be within the maximum desirable cycling distance and to have a reasonable propensity to increase active travel.
- 2.1.5 The LCWIP will also consider strategic links between the study area and outlying areas as appropriate (such as cross-boundary links or to long-distance leisure routes). The agreed study area is shown in Figure 2-1 below.

Figure 2-1 – Study Area Boundary



3 Policy Context

3.1 National Policy and Guidance

White Paper: Creating Growth, Cutting Carbon (2011)

- 3.1.1 The White Paper was published in January 2011 alongside the launch of the Local Sustainable Transport Fund (LSTF), and presents an ambitious vision for sustainable and active travel: “Our vision is for a transport system that is an engine for economic growth, but one that is also greener and safer and improves quality of life in our communities.”
- 3.1.2 The White Paper recognises the potential for a significant proportion of shorter local journeys made by car to instead be undertaken via sustainable and active modes: primarily walking, cycling, and public bus. In order to facilitate this behaviour change, the White Paper sets out the role of Localism and how Local Authorities are best placed to instigate change.

National Planning Policy Framework (NPPF) 2012

- 3.1.3 The Government’s National Planning Policy Framework (NPPF) was published on 27th March 2012 (most recently revised on 20th July 2021) and replaces all previous planning policy in England with immediate effect. The framework states that local planning authorities should support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport.
- 3.1.4 Chapter 9 of the NPPF addresses the promotion of sustainable transport, and states in paragraph 105 that “Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes.”
- 3.1.5 Paragraph 106 sets out a clear approach to promoting sustainable transport through the planning system states that planning policies should “provide for attractive and well-designed walking and cycling networks with supporting facilities such as secure cycle parking (drawing on Local Cycling and Walking Infrastructure Plans)”.

DfT Cycling and Walking Investment Strategy (2017)

- 3.1.6 At a national level, the Cycling and Walking Investment Strategy sets out the Government’s ambition for cycling and walking in England, which is to “make cycling and walking the natural choices for shorter journeys, or as part of a longer journey” by 2040. To achieve this various locations need to be made safer, better connected and more accessible for all, with high-quality design of walking and cycling infrastructure at the centre of decision making.
- 3.1.7 The Government published its first Cycling and Walking Investment Strategy (CWIS) in 2017. The CWIS states that the benefits from increased levels of walking and cycling would be substantial, potentially leading to cheaper travel and better health, increased productivity for business and increased footfall in shops, and lower congestion, better air quality, and vibrant, attractive places and communities for society.
- 3.1.8 As regards spending, the CWIS outlines a £300 million investment in cycle training and infrastructure during the current Parliament and sets out ambitious targets for the period up to 2025, including a doubling of cycling trip stages each year (from 0.8 billion in 2013 to 1.6 billion by 2025), whilst also reversing the current year-over-year decline in walking trip stages. The CWIS also identifies a need to decrease the number of cycle user fatalities and serious injuries each year.

Local Cycling and Walking Infrastructure Plans Guidance (2017)

- 3.1.9 The Local Cycling and Walking Infrastructure Plans (LCWIP) Guidance was published alongside the DfT CWIS. Local Cycling and Walking Infrastructure Plans are set out in the CWIS as a new strategic approach to identifying cycling and walking improvements required at a local level.
- 3.1.10 The LCWIP guidance sets out a recommended approach to planning networks of walking and cycling routes that connect places that people need to get to, whether for work, education, shopping, or for other reasons. The guidance brings together national and international guidance on best practice, and explains how a range of tools, such as the Propensity to Cycle Tool (PCT), can be used to help develop robust plans and schemes.
- 3.1.11 The Blackburn with Darwen Cycling Infrastructure Plan will broadly follow the guidance set out in the LCWIP guidance.

Gear Change – A Cycling and Walking Plan for England (2020)

- 3.1.12 In 2020 government published Gear Change¹, setting out bold plans to see a step-change in cycling and walking across England. Government expects councils to prepare an LCWIP to be eligible for future transport funding. Central government has explicitly stated that local authorities with LCWIPs will be better positioned to secure future funding for sustainable transport.

Local Transport Note 1/20 (2020) and Manual for Streets 1 / 2 (2007/2010)

- 3.1.13 This local transport note (LTN) provides guidance to local authorities on delivering high quality, cycle infrastructure including:
- planning for cycling
 - space for cycling within highways
 - transitions between carriageways, cycle lanes and cycle tracks
 - junctions and crossings
 - cycle parking and other equipment
 - planning and designing for commercial cycling
 - traffic signs and road markings
 - construction and maintenance
- 3.1.14 This information replaced ‘Shared use routes for pedestrians and cyclists (LTN 1/12)’ and Cycle infrastructure design (LTN 2/08).
- 3.1.15 The ‘Manual for Streets’ explains how to design, construct, adopt and maintain new and existing residential streets.
- 3.1.16 This manual provides guidance about the design, construction, adoption and maintenance of new residential streets. Information inside it can also be applied when redesigning existing residential streets.
- 3.1.17 ‘Manual for streets 2 - wider application of the principles’ is a companion guide to ‘Manual for streets’ and extends its practices beyond residential streets to encompass both urban and rural situations. It is intended to assist those in the planning, construction and improvement of our streets to deliver more contextually sensitive designs.

¹ <https://www.gov.uk/government/publications/cycling-and-walking-plan-for-england>

- 3.1.18 Manual for street 2 fills the gap in design advice that lies between ‘Manual for streets’ and the design standards for trunk roads as set out in the ‘Design manual for roads and bridges’.

3.2 Local Policy

Blackburn with Darwen Local Transport Plan 3 (2011-2021)

- 3.2.1 The Blackburn with Darwen Local Transport Plan 3 (LTP) presents transportation priorities for ten years from 2011 to 2021. It sets out a strategy which pledges to support Blackburn with Darwen’s economy, tackle deep-seated inequalities in people’s life chances and to revitalise communities by providing safe high-quality neighbourhoods.

- 3.2.2 The LTP sets out the following priorities:

- Improve access to areas of regeneration and economic growth
- Reduce carbon emissions
- Improve road safety
- Improve access to education and employment
- Improve quality of life and wellbeing
- Maintain our transport assets in good condition

- 3.2.3 This LCWIP is considered to be consistent with the priorities of the LTP3 although this is expected to be replaced by an updated LTP4, later in 2022.

Blackburn with Darwen Local Transport Plan 4 (in preparation)

- 3.2.4 The LCWIP will contribute to the delivery of transport objectives outlined within an emerging LTP4 covering Lancashire, Blackburn with Darwen and Blackpool. These presently include, but are not limited to:

- Reduce the impact of harmful emissions from transport, addressing air quality and climate change concerns;
- To improve local public transport, networks and interchanges;
- To improve public transport for better inter-urban and rural connectivity;
- To deliver sustainable transport systems that are accessible and inclusive for all;
- To transform our streets and places to enable an increase in active travel;
- To reduce the need to travel by private car particularly for shorter journeys;
- To reduce all road casualties and progress towards zero killed and seriously injured;
- To facilitate economic growth and regeneration;
- To manage our transport assets efficiently and effectively; and
- To improve the efficiency of our local road networks.

Blackburn with Darwen Local Plan

- 3.2.5 Blackburn with Darwen Borough Council currently has a two-part Local Plan made up of the Core Strategy (adopted 2011) and Local Plan Part 2: Site Allocations and Development Management Policies (adopted 2015). Together these documents set out the land use planning strategy for the Borough up to 2026. New planning regulations introduced in 2017 require local authorities to review Local Plans at least every five years from the date of their adoption.

- 3.2.6 In response to the new regulations, an assessment of the two adopted local plan documents was undertaken. The Council approved a new Local Development Scheme (LDS) in February 2018 confirming its intention to develop a single new Local Plan. The Council is preparing a new Local Plan for the Borough to cover the period 2021-2037. It will replace the existing two-part Local Plan made up of the Core Strategy (adopted 2011) and Local Plan Part 2: Site Allocations and Development Management Policies (adopted 2015).
- 3.2.7 A number of key consultations on the new Local Plan have already taken place. The Council has now prepared its final pre-submission Regulation 19 ‘Publication’ version of the new Local Plan ready for public consultation. Consultation on the ‘Publication’ version is the final opportunity for people and organisations to comment before submission of the Plan to the Government’s Planning Inspectorate for independent Examination in Public. The ‘Publication’ Plan (Background Paper 1) illustrates the Council’s proposal for a “balanced growth” strategy in a way that ensures social, environmental and economic net gains.
- 3.2.8 Evidence based policies seek to attract new homes (around 7,000), new jobs (around 5,000 net new jobs) and new growth opportunities whilst tackling the climate emergency and addressing inequalities in health and deprivation.
- 3.2.9 A ‘Climate Impacts Framework’ (CIF) document accompanies the Local Plan. The Plan proposes that all new development will be required to demonstrate how it contributes to reducing carbon emissions as part of mitigation and adaptation to climate change. The CIF is the practical way of doing so and will be subject to consultation alongside the ‘Publication’ Plan.
- 3.2.10 The preparation of the new local plan is supported by a range of transport-related evidence and supporting documents including a Local Plan Transport Study, Connectivity Studies, a Southeast Blackburn Sustainable Transport Study and the Infrastructure Delivery Plan.

Blackburn with Darwen Safer Roads Strategy 2022-2026

- 3.2.11 The Safer Roads Strategy sets out the priorities and plans to help improve safety on Blackburn with Darwen’s roads. This includes safety of people walking and cycling, vehicle drivers and all other road users.

3.3 Climate Emergency

- 3.3.1 The Council Declared a Climate Emergency in July 2019 and published the first draft of its Climate Emergency Action Plan in February 2020. The Action Plan sets out the objectives and actions that have been identified as necessary to contribute to the Council’s ambition for a carbon neutral Borough and concentrates on activity that the Council can influence.
- 3.3.2 This includes an action to promote active travel including the following measures:
- Provide facilities for cycling and walking in the borough using the Active Travel Fund to support access to key employment and education sites and increase levels of active travel for everyday journeys – Capability Funding of £272,528 was received in October 2021. This revenue funding was used to deliver business/school grants to improve onsite facilities to encourage more walking and cycling, for example cycle parking, shower and locker facilities.
 - Implement an action plan of cycling and walking activities, as submitted to DfT, which will enable businesses, schools and hard to reach communities to be encouraged to engage in active travel through adult and family cycle training, led walks and rides, bike hire and community based cycling and walking activities The final delivery action plan will be available when our allocation has been confirmed by DfT;

- Utilising Capability funding we will be developing the first three stages of this Blackburn with Darwen Local Cycling and Walking Infrastructure Plan (LCWIP)
- A Walking and Cycling Plan (2021-2024) has now been produced and approved and will be used as a daughter document to the Local Transport Plan (LTP4). Delivery of the plan will be supported through engagement activities delivered through the impending capability Fund, infrastructure delivery will be supported as part of future Active Travel Funding and funding aligned with Local Cycling and Walking Infrastructure plans (LCWIP's). Policy, aims and objectives will be supported through LTP4.
- Develop a strategic East Lancashire LCWIP with Lancashire County Council, Hyndburn and Rossendale Councils. This is progressing well, with Stage 2 'Gathering information stage' nearly complete and some of Stage 3 'Network planning' partially underway.
- Work with education and employment settings to influence and change travel behaviour. This is a particular focus within the capability funding delivery;
- In partnership with Public Health, CCGs and Primary Care Network we have recently submitted an Expression of Interest to deliver an Active Travel Social Prescribing Pilot. £100k is available for successful LAs to develop feasibility studies and detailed project planning on how we can provide cycling and walking interventions as part of the primary care and CCG social prescribing offer.

Blackburn with Darwen Borough Council – Walking and Cycling Plan 2021-2024

- 3.3.3 The Blackburn with Darwen Walking and Cycling Plan envisions a future where walking and cycling are first choice methods for making shorter journeys and enjoying local communities in a safe and healthy way. The plan aims to coordinate efforts by multidisciplinary stakeholders to increase walking and cycling uptake within the borough. The Plan's aims complement national, regional and local priorities in the realms of health and wellbeing, air quality, climate change, road safety, planning and transport.
- 3.3.4 The Walking and Cycling Plan 2021-2024 aims to contribute to achieving important strategic corporate goals for the council and formulates as a daughter document to the impending Local Transport Plan 4 and vision for the upcoming renewal of The Local Plan. The plan pulls together what work is ongoing around walking and cycling, aims to increase co-ordination between partners and stakeholders, and lays out our future ambitions for active travel. The principles running through the plan include:
- Taking a life course approach
 - Aiming to increase access and reduce inequalities in walking and cycling uptake
 - Focusing on joined up and partnership working

3.4 Summary

- 3.4.1 The policy review presented above demonstrates how the Blackburn with Darwen LCWIP will contribute to a range of policy objectives at local and national scale. The principles of the LCWIP are to contribute towards the Government's national level objectives of supporting sustainable development by contributing to economic growth in a sustainable manner.
- 3.4.2 The Government recently released the Cycling and Walking Investment Strategy (CWIS) and Local Cycling and Walking Infrastructure Plan (LCWIP) guidance. The LCWIP represents part of Blackburn with Darwen Borough Council's contribution to support the CWIS objectives.
- 3.4.3 At a local level, the LCWIP will support and contribute toward existing and emerging Local Transport Plan objectives due to the wide-ranging way that walking and cycling, as a mode of transport, can deliver benefits to individuals and wider society.

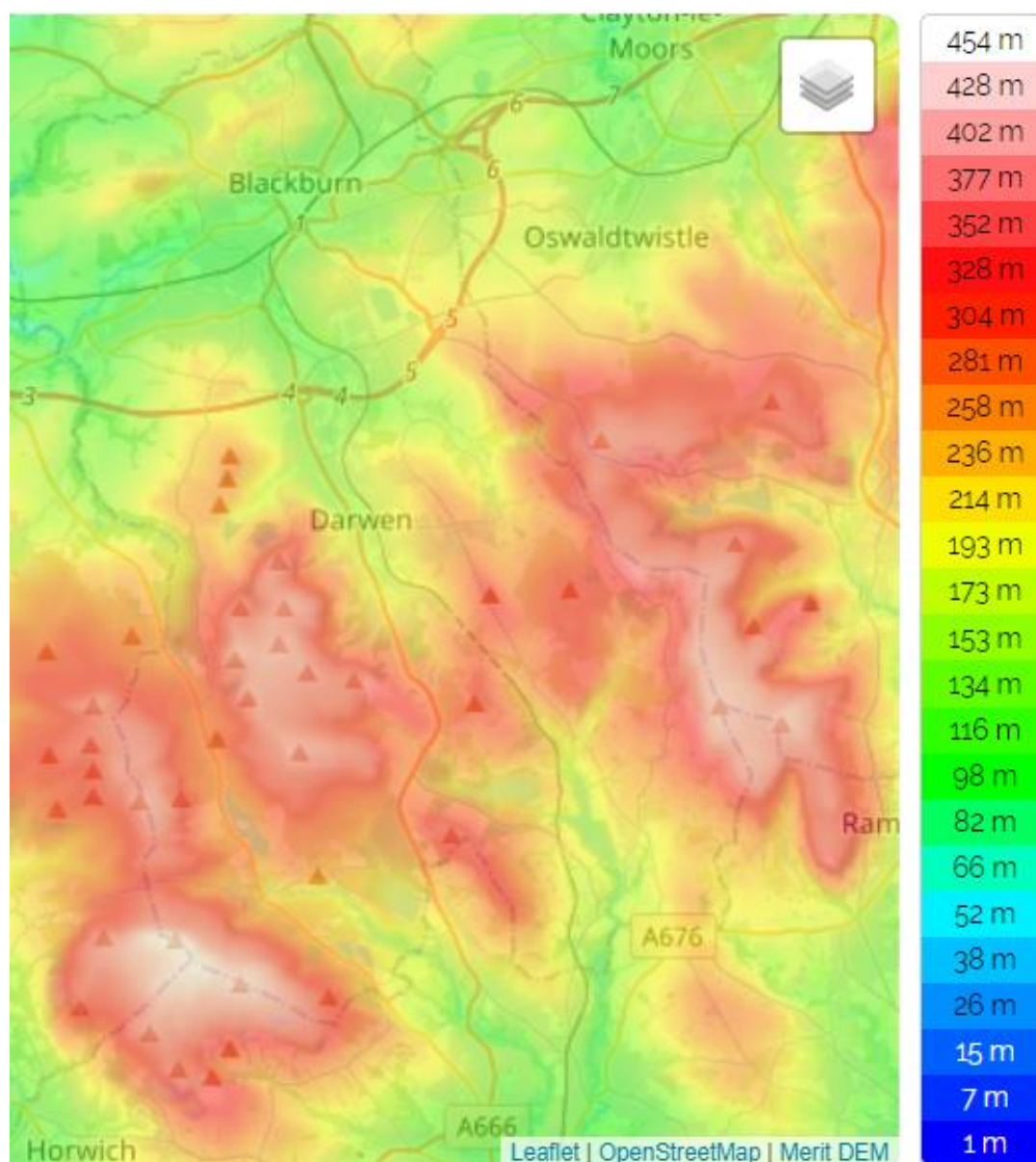
- 3.4.4 The LCWIP will also complement Blackburn with Darwen Borough Council's Local Plan vision, for sustainable development, providing opportunities for walking and cycling, enhancing the borough's tourist offering and access to the countryside, and potentially enhance community infrastructure and spaces, while also promoting environmental, health, and social equality agendas.
- 3.4.5 The LCWIP can also help tackle climate change through modal shift. If adopted as a Supplementary Planning Document (SPD), as per the DfT's LCWIP guidance, the Blackburn with Darwen LCWIP will provide a policy basis for development to contribute towards a cohesive walking and cycling network and helps ensure Blackburn with Darwen Borough Council's significant growth aspirations come forward in a sustainable manner.

4 Local Geography

4.1 Topography

- 4.1.1 Figure 4.1 below identifies the general topography of Blackburn with Darwen. The LIDAR Topographic Survey Map (or Digital Terrain Model (DTM)) demonstrates that the central parts of Blackburn, where the River Darwen and Blakewater meet, lie at a height of approximately 100 metres above sea level.

Figure 4.1 – Representation of Topography in Blackburn with Darwen²



- 4.1.2 The northern part of Blackburn is located at a higher elevation. The south eastern and south western parts of Blackburn, either side of the River Darwen are also located at a higher elevation.
- 4.1.3 Darwen lies at approximately 220 metres above sea level and occupies the narrow valley between Darwen Moor and Grey Stone Hill. Darwen is surrounded to the west, east and south by moorland.
- 4.1.4 The southern part of the Borough falls within a second river catchment, the River Irwell, which drains south to the Mersey Basin. The boundary between Darwen and the Irwell catchment rises to a height

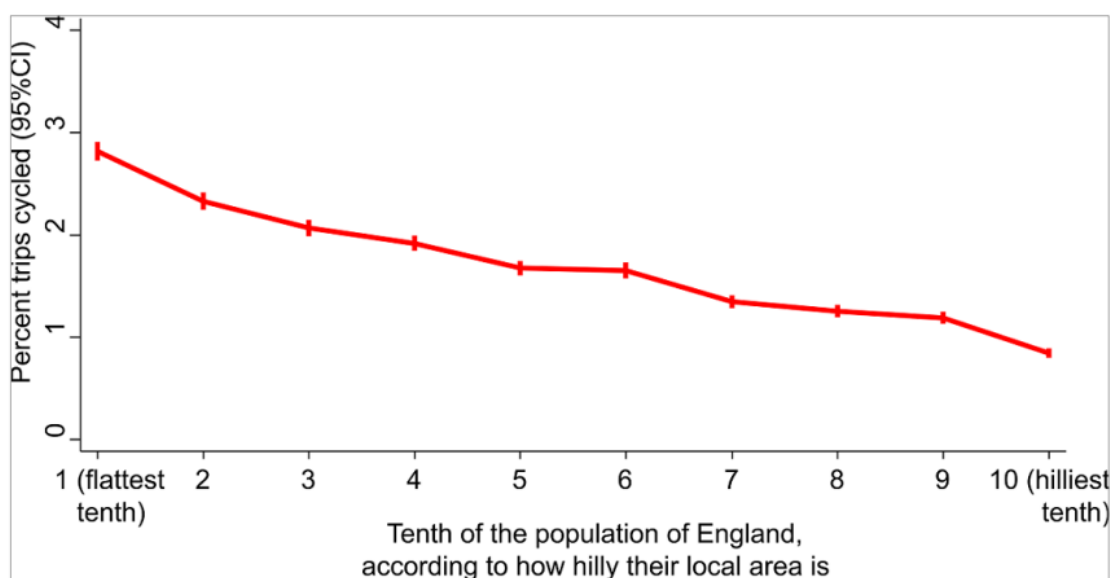
² [Blackburn with Darwen topographic map, elevation, relief \(topographic-map.com\)](https://topographic-map.com/blackburn-with-darwen-topographic-map-elevation-relief/)

approaching 400 metres on Turton Moor and Causeway Height. The rural population is largely located to the west, south and east in river valleys or reservoir valleys and include the villages of Edgworth and Turton Bottoms, Belmont and Hoddlesden.

4.1.5 Hilliness is an important predictor of cycling levels in England, with the probability of cycling a trip falling steadily as the hilliness of the local area increases. Recent University of Leeds research showed that “hilliness was found to be, by far, the most significant determiner of the proportion that cycled to work in a district³ “

4.1.6 Furthermore, as demonstrated in Figure 4.2, overall, people in the tenth of the population of England in the flattest areas are three times more likely to cycle a trip than the tenth of people in the hilliest areas (2.8% trips cycled vs. 0.8%⁴). This makes the topography within the study area an important, influencing factor on the cycle network development. Certain areas within the study area may be too hilly and deter potential cycle users from using those routes.

Figure 4.2 – Proportion of Trips Cycled in England (According to ‘Hilliness’ of Local Area)



4.1.7 Gradient also plays a major role in the perceived ‘comfort’ or ‘attractiveness’ of pedestrian routes (footpaths and footways), and thus, the propensity to walk a route. As highlighted in DfT’s 2005 ‘Inclusive Mobility’ guidance⁵, steep gradients can have a particular impact on older people, those with physical difficulties and parents with pushchairs.

4.1.8 The guidance recommends that as a general rule, a gradient of 5% (1 in 20) should be the desirable maximum in most situations and 8% (1 in 12.5) should be used as the absolute maximum unless justifiable. Research by Meeder et al (2017)⁶ concluded that slope (and by inference ‘hilliness’) has a significant influence on walking attractiveness primarily due to the effort (or energy) required to scale the slope, suggesting that for every 1% increase in incline there is a 10% reduction in walking attractiveness.

³ Estimation of the determinants of bicycle mode share for the journey to work using census data, 2007

⁴ Centre for Diet and Activity Research, 2016

⁵ Inclusive Mobility, Department for Transport, 2005

⁶ ‘The influence of slope on walking activity and the pedestrian modal share’, Meeder M. et al., 2017

4.2 Barriers to Movement

4.2.1 Although the topography of the area has been identified as generally conducive to walking and cycling, there are a number of physical barriers which can impede active travel movements. The key features that can cause high levels of severance, creating barriers to movement across many desire lines with the study area include the M65 motorway, major A-roads, the Leeds & Liverpool canal, and rail lines. Significant engineering interventions may be required to mitigate this impact.

4.3 Environmental Considerations

4.3.1 Environmental considerations have the potential to form a key part of the LCWIP process. Protected areas of land can restrict the type of infrastructure that can be implemented, or even prevent a route from being adopted at all. This section of the report presents a brief overview of environmental constraints that could impact on the overall LCWIP proposals.

4.3.2 Figure 4.3 illustrates the various environmental constraints that may need to be considered as part of the emerging Blackburn with Darwen LCWIP. While not shown in Figure 4.3 there are several waterways with adjacent areas threatened by flooding. New infrastructure in these areas would need to consider resilience to flooding, and how it could contribute towards mitigation of flood risk.

4.3.3 Darwen is largely surrounded by a Site of Special Scientific Interest (SSSI) and there are several ancient monuments across the study area that will need to be considered. There are numerous historic parks & gardens, local nature reserves, conservation areas and air quality management areas within Blackburn with Darwen as shown in Figure 4.3.

4.3.4 Consideration shall be given to all the various designations within the study area through the development of the LCWIP and to how the walking and cycling networks can interact with and enhance these features. Networks could enhance access to tourist locations, or conversely redirect users away from sensitive areas. The specific design of interventions may also need to consider designations such as conservation areas.

4.4 Air Quality Management Areas

4.4.1 Since 1997 all local authorities have been carrying out reviews and assessments of air quality. If this monitoring highlights areas where the national air quality objectives are unlikely to be met, under the Environment Act 1995 they are required to designate an Air Quality Management Area (AQMA).

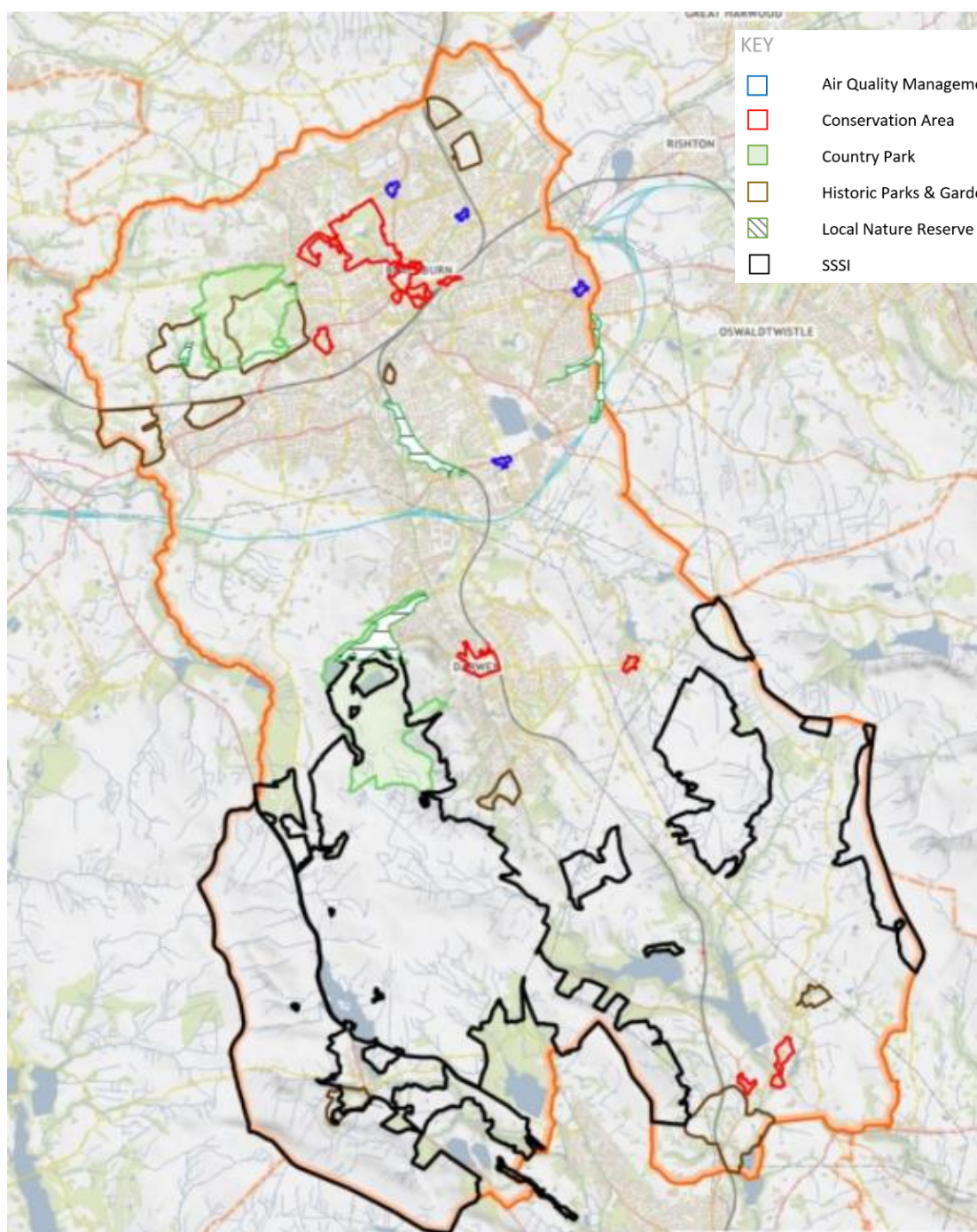
4.4.2 There are four AQMAs within Blackburn with Darwen where air quality failed to meet the national health based annual target for nitrogen dioxide, mainly because of road vehicle exhaust emissions.

4.4.3 The four AQMAs are as follows and can be seen in Figure 4.3:

- AQMA Order No.1 Intack
- AQMA Order No.2 Bastwell
- AQMA Order No.6 Blackamoor
- AQMA Order No.7 Four Lane Ends

4.4.4 A number of other AQMAs within Blackburn with Darwen have been revoked in recent years following positive work through Air Quality Action Plans. Ongoing monitoring suggests that the Blackamoor AQMA is also likely to be revoked with further measures to address the remaining AQMAS set out in the councils Safer Roads Strategy and Climate Emergency Action Plan.

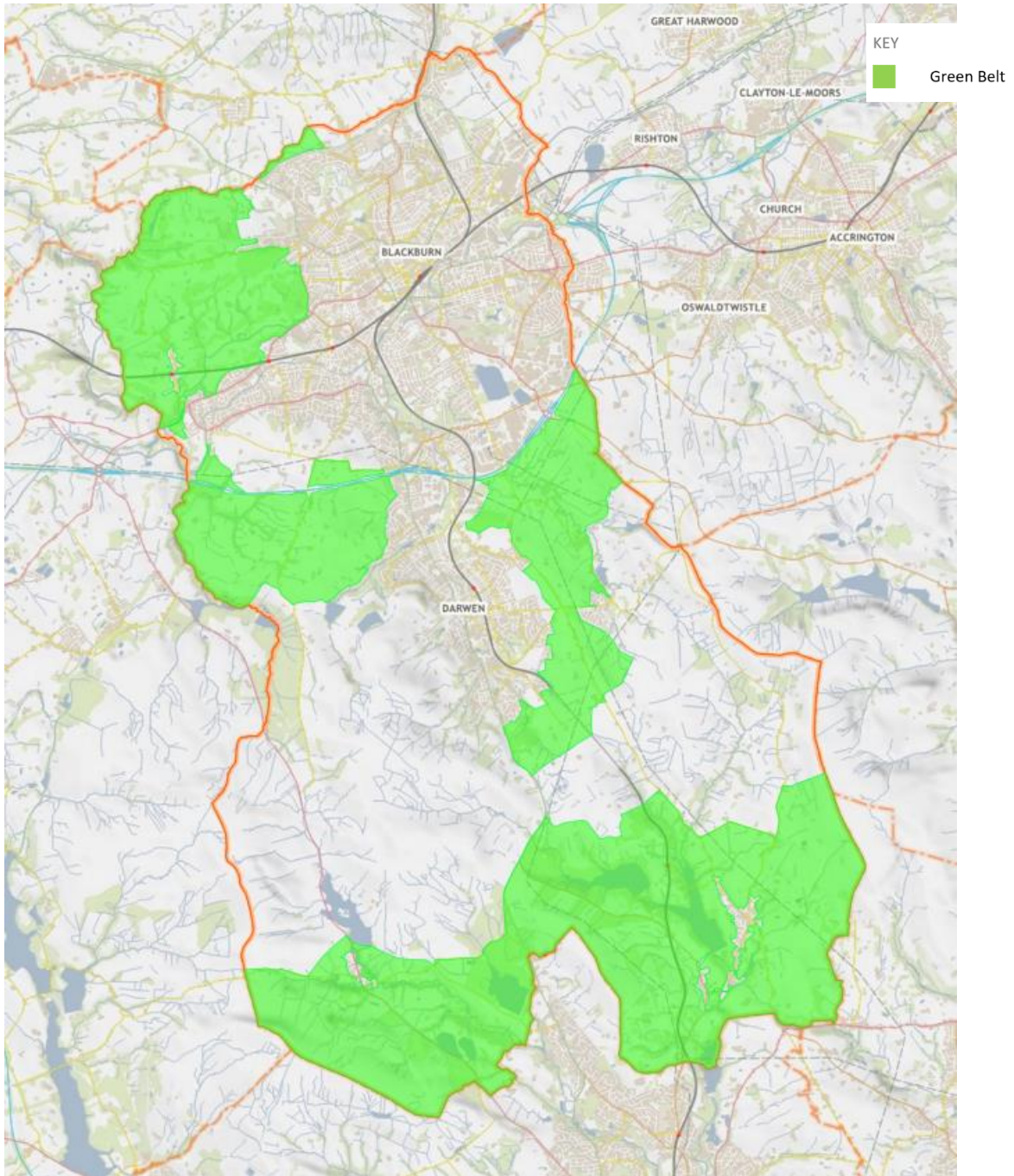
Figure 4.3 – Environmental Constraints



4.5 Greenbelt

4.5.1 Within the UK, the greenbelt is an area of open land around an urban area where building is restricted. The greenbelt should be taken into account when looking to increase cycling in an area as it may restrict the design of any infrastructure proposed. Hard infrastructure such as segregated routes may not be a realistic proposal in a greenbelt area; however, softer alternative measures such as signed routes may be implemented. Figure 4.4 shows the present extents of the greenbelt and how the greenbelt land impacts on the study area (note the emerging Local Plan is proposing removal of greenbelt land near Junction 5 of the M65).

Figure 4.4 – Greenbelt Extents



5 Demographics

5.1 The Local Population

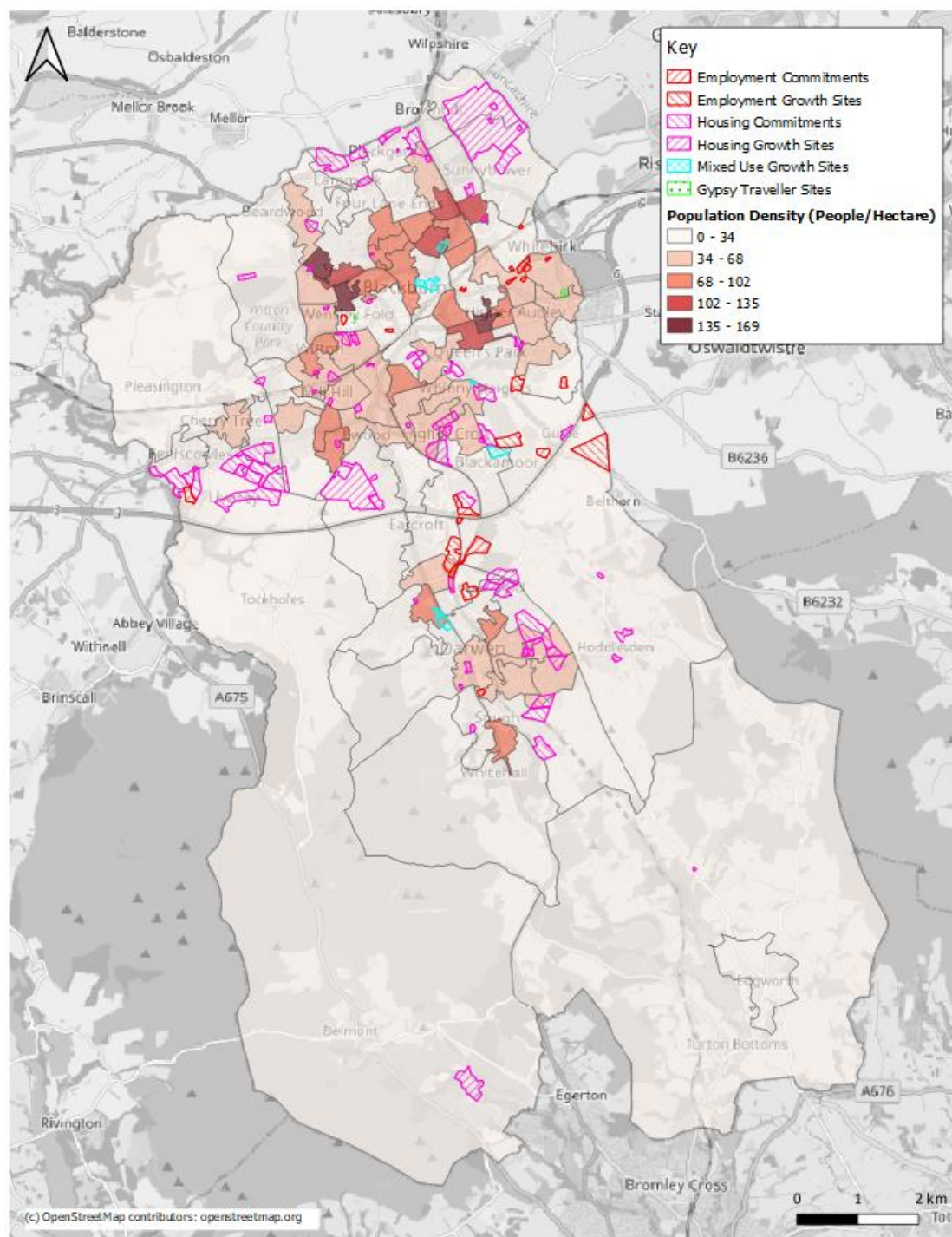
5.1.1 The population of the authority has, in general, been on an upward trend over recent years, and the 2020 result of 150,030 represented a small rise over the previous year. This gives Blackburn with Darwen the highest population for any of the 14 Lancashire local authorities and the first one to exceed 150,000. Blackburn with Darwen has a noticeable Asian population (2011 census) as part of its ethnic mix.

5.1.2 Since the 1980's live births have been consistently greater than deaths over the long term in Blackburn with Darwen. The large positive results for the natural rate of change are usually big enough to offset substantial losses through outward migration with population growth expected to continue.

5.2 Population Density

5.2.1 Figure 5.1 shows the population density within the borough, for each Lower Super Output Area (LSOA). The borough has a relatively low population density overall, with large rural areas outside of the towns of Blackburn and Darwen having a population density of 0-35 people per hectare. Areas of higher population density are situated around Blackburn and Darwen town centres, as would be expected.

Figure 5.1 - Population Density



5.3 Indices of Multiple Deprivation

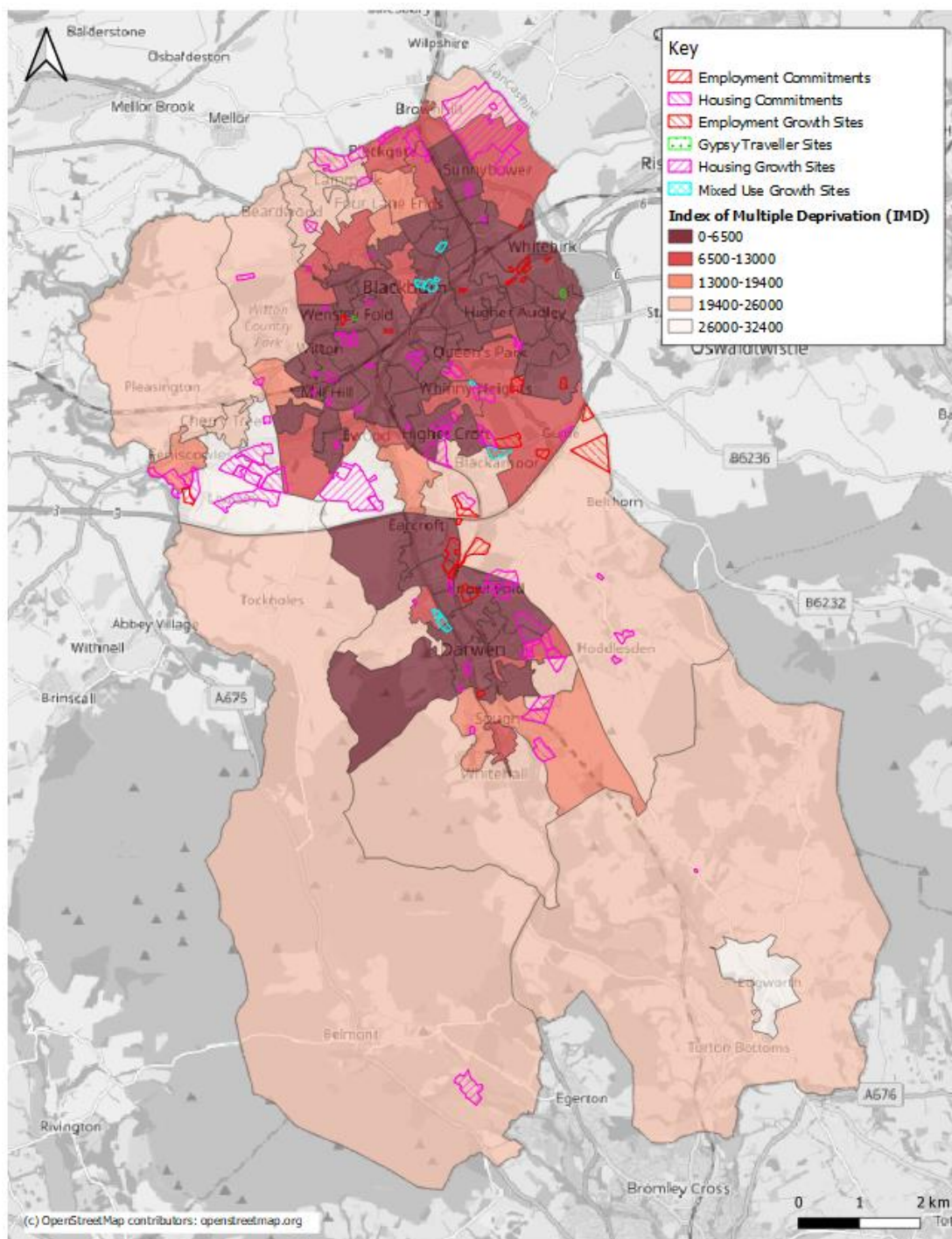
5.3.1 The Index of Multiple Deprivation (IMD) is the official measure of relative deprivation for neighbourhoods (classified as LSOAs) in England. The IMD ranks every LSOA in England from 1 (as the most deprived area) to 32,844 (the least deprived area). The IMD measures deprivation across seven domains: Income; Employment; Health Deprivation & Disability; Education, Skills Training; Crime; Barriers to Housing and Services; and Living Environment.

5.3.2 The IMD can be a useful indicator of the propensity to travel by particular modes of transport within a given neighbourhood. More deprived areas of the borough may have lower levels of access to

privately owned vehicles and therefore have a greater propensity to use public transport or active travel modes for a higher proportion of their journeys.

5.3.3 Figure 5.2 below shows the IMD levels within the borough. The figure shows that the borough contains some of the least and most deprived areas in England. The most deprived areas are located in Blackburn and Darwen urban areas, with the more rural areas of the borough being amongst the least deprived.

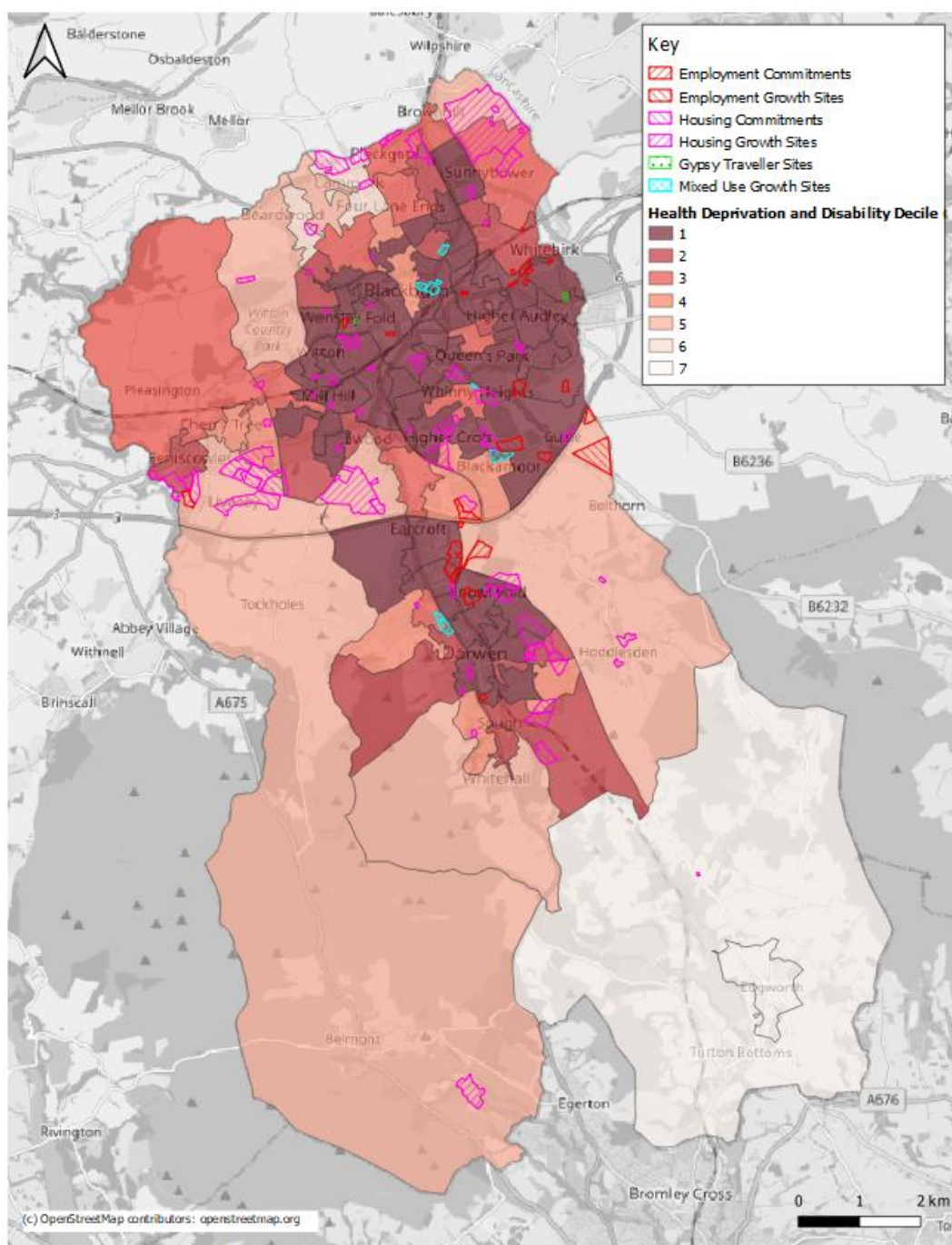
Figure 5.2 – Index of Multiple Deprivation



5.4 Health Deprivation and Disability

- 5.4.1 Figure 5.3 shows the Index of Health Deprivation and Disability by LSOA. This Index analyses those living in poor physical and mental health. The analysis shows that when analysing this IMD factor in isolation, it can be seen that the towns of Blackburn and Darwen rank within the 20% most deprived areas in the country.
- 5.4.2 Ensuring good accessibility in areas of high health deprivation and disability is important so as to not socially exclude a proportion of the vulnerable population. Some physical health issues prevent the ability to use a car, therefore car ownership could be lower in these areas. Good public transport networks and well lit, well maintained, wide footpaths are desirable for all of the population, but for the vulnerable population, these measures provide independence and essential accessibility to and from their home.

Figure 5.3 – Index of Health Deprivation and Disability

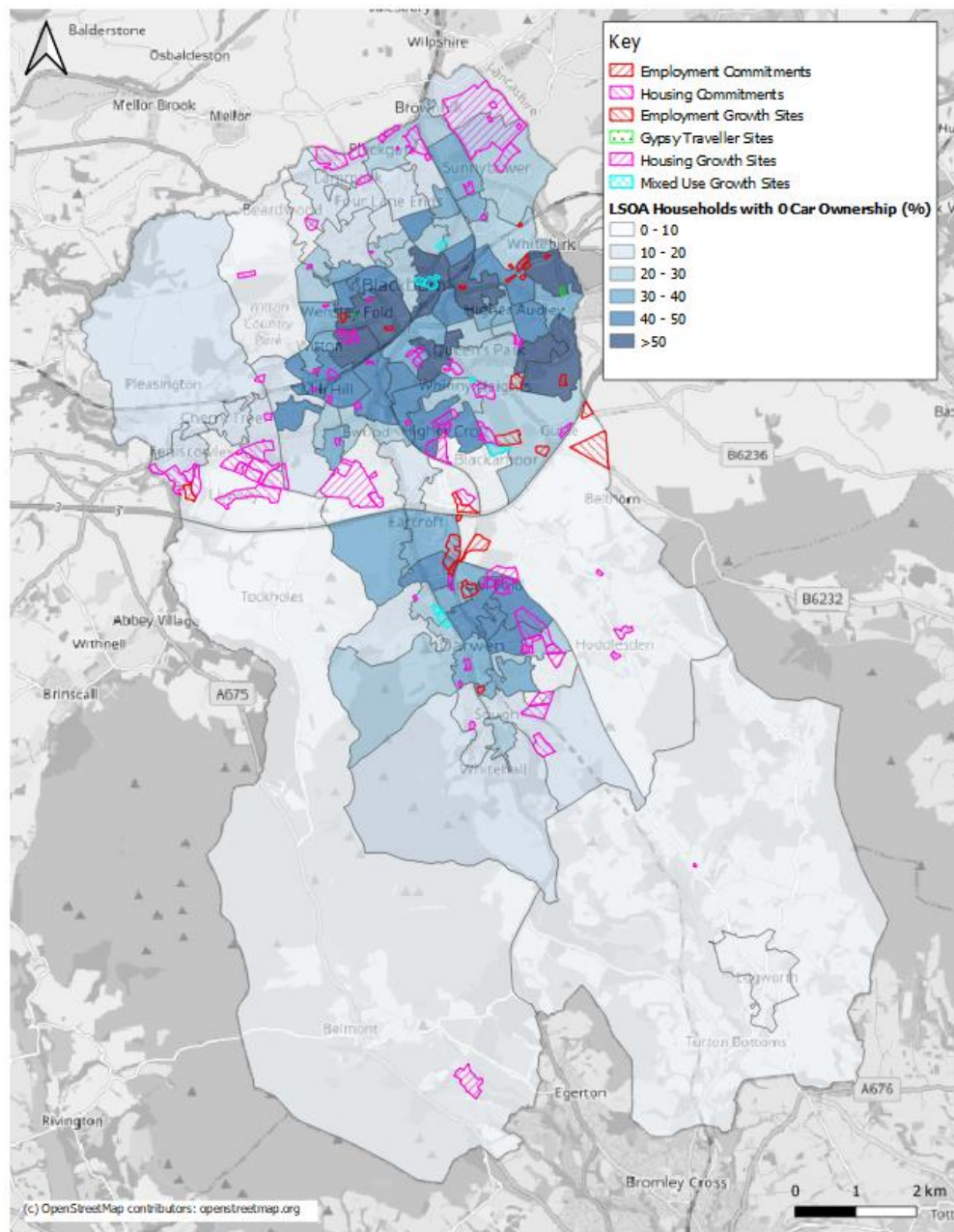


5.5 Vehicle Ownership

- 5.5.1 Vehicle ownership levels within an area have a significant influence on travel patterns. High levels of vehicle ownership typically positively correlate with high levels of vehicle usage, potentially reducing the propensity to travel by active or sustainable methods.
- 5.5.2 Figure 5.4 below shows the percentage of households that do not own a car, by LSOA. Similar to typical trends evident in the majority of UK towns and cities, car ownership levels decrease with increased proximity to town and city centres. It can be seen that the proportion of households that do not own a car increases towards the centre of Blackburn with over half the number of households in LSOAs around the A6078 Barbara Castle Way not owning a car.

5.5.3 Outside of town and city centre locations where car ownership is not deemed necessary for travel, car ownership is often an indication of levels of income. Levels of higher car ownership can be an indication of more affluent areas and areas of lower car ownership can indicate lower income households.

Figure 5.4 – Percentage of Households with Zero Car Ownership



5.6 Ultra-Low Emission Vehicles

5.6.1 Analysis has been undertaken of the level of ownership of Ultra Low Emission Vehicles (ULEVs) in the borough, compared to the figures for Lancashire, the North-West, and the UK. An Ultra-Low Emission Vehicle is defined as a low emission car or van that emits 75g/km CO₂ or less, based on the NEDC test. ULEVs include pure electric vehicles, electric range-extender vehicles, and plug-in hybrids (PHEVs).

5.6.2 The data in Table 5.1 below shows that Blackburn with Darwen has a lower proportion of ULEVs as a percentage of its total vehicles in comparison with all Lancashire authorities (including Blackburn with

Darwen & Blackpool), as well as being below the average for the North-West and UK (as of 2020). This highlights potential opportunities to increase the percentage of ULEV uptake within the borough.

Table 5.1 – 2020 ULEV Ownership⁷

Area	Plug-in Cars and LGVs	Total ULEVs	Total Vehicles	ULEVs as % of all vehicles	Total Public Charging Devices	Total Public Rapid Charging Devices
BwDBC	176	189	70,200	0.27	20	2
Lancashire	2,796	2,982	860,600	0.35	317	92
North West	13,227	13,979	3,945,800	0.35	-	-
UK	253,956	269,377	39,890,500	0.68	17,947	3,107

⁷ DfT Vehicle Licensing Statistics

6 Travel Patterns

6.1 Introduction

- 6.1.1 This section of the report focuses on the movement patterns within the study area, looking at how people travel, why they travel and where they travel to and from. The purpose of this section is to provide an understanding of the demand for movement within the study area and how walking and cycling could offer the potential for addressing some of this demand.
- 6.1.2 A range of data sources have been utilised to understand the travel patterns within the study area, such as the 2011 Census and the National Travel Survey. It is understood that these sources have their limitations, such as the age of the data and the geographical disaggregation. However, it is acknowledged that there are no comparative alternatives to use without commissioning data collection for a specific purpose.
- 6.1.3 It should also be noted that the LCWIP is not intended to continue the ‘status quo’ in terms of existing modal split or provide infrastructure that only caters for existing travel patterns which are predominantly based on the mobility and ubiquity of the private motor vehicle. The fundamentals of the LCWIP are based on a principle of providing active travel infrastructure for all people, for all purposes.

6.2 Economic Context

- 6.2.1 Employee numbers in Blackburn with Darwen increased in the decade to 2008, albeit at a rate below the national and county averages. Between 2009 and 2016, employment in the authority showed strong growth and increased by 7.9% to 68,000. In 2021, there are a substantial 5,225 active enterprises in Blackburn with Darwen.
- 6.2.2 In Blackburn with Darwen as in most places, the manufacturing sector has shed jobs over the years whilst the service sector has grown to become a far greater source of employee jobs. However there still continues to be a bias towards a larger proportion of employees in the manufacturing sector in Lancashire and in Blackburn with Darwen than is the norm.
- 6.2.3 Average earnings in Blackburn with Darwen are noticeably higher when measured by place of work in comparison to place of residence therefore the authority records a net loss from commuter flows. The figure by place of residence is well below the national average.
- 6.2.4 Gross value added is a measure of economic activity and the 2016 results for Blackburn with Darwen reveal a per head figure that was 75.7% of the UK average. The authority also has a history of low overall employment rates.
- 6.2.5 Gross disposable household income is effectively the amount of money that after taxes, social contributions, pensions and housing interest payments, households have available for spending or savings. The per-head figure for Blackburn with Darwen was far below the county and UK averages. In general terms the per-head figure for the authority is in long-term decline in comparison to the UK average.
- 6.2.6 In comparison to the national average, there is a high percentage of the working age population that is reliant on welfare benefits. The authority has a large number of employment and support allowance claimants and the number of people in receipt of housing benefit and universal credit is also high.

6.3 Education Context

- 6.3.1 Overall Blackburn with Darwen performs above the national average on the Progress 8 measure of attainment at Key Stage 4, although there are significant differences between progress in the

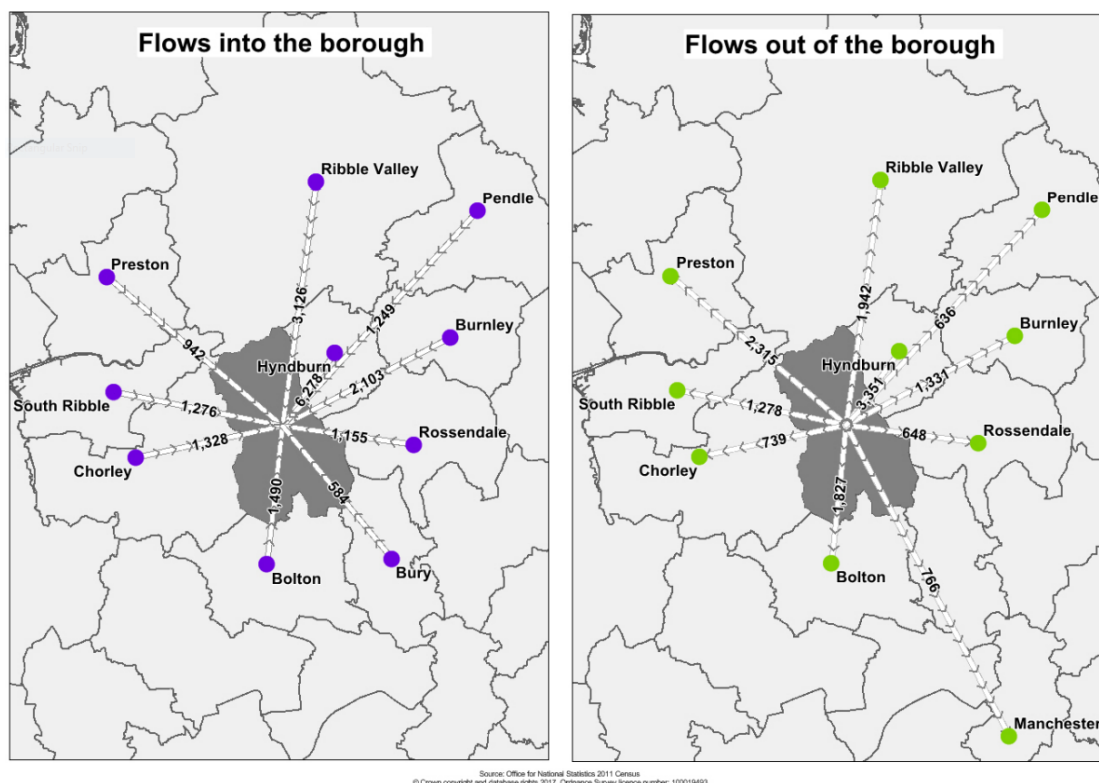
borough's schools. On overall attainment, the borough scores 50.3, just above the England average of 48.5.

- 6.3.2 After secondary education, a greater proportion of the borough's young people stay on in full time education or training and a smaller proportion in apprenticeships, compared to Lancashire Local Education Authority (LEA). On average, a lower proportion of students who study A Levels in Blackburn with Darwen schools and colleges achieve top grades compared to the England average.
- 6.3.3 Working age residents of the borough have on average lower levels of higher-level qualifications and a greater proportion have no qualifications; although the gap to the regional and national averages with no qualifications is narrowing. The UK wide Employer Skills Survey estimates that around 3% of businesses in Blackburn with Darwen stated that they had a skills shortage vacancy (which is due to a shortage of skills or experience that the employer is looking for).
- 6.3.4 Blackburn town centre is home to Blackburn College that contains a university centre validated by Lancaster University. Other sites in the town that have a presence that goes beyond the authority boundary include St. Mary's College, with a sixth form and university centre, Queen Elizabeth's Grammar School, and the fee-paying Westholme School.
- 6.3.5 Accessibility and demand for good education can affect travel patterns, and result in additional trips on the transport network, contributing to issues of congestion. The education provision available in Blackburn with Darwen attracts daily trips from surrounding areas; as such, good transport links are vitally important to enable pupils to have opportunities to access education, whilst not adding pressure to the transport network.

6.4 Commuting Origin - Destination

- 6.4.1 The 2011 census results on commuter flows highlight the numbers of people commuting to and from Blackburn with Darwen (on census day) from neighbouring authorities, and some that are further afield. Whilst dated, this remains the primary source of data on travel patterns. Excluding people who live and work in the borough, work at home, have no fixed place of work or who work offshore or outside the UK, the census estimates that 24,014 people commute into the borough to work, whilst 19,806 travel out of the borough for work (not including those who work offshore out outside the UK).
- 6.4.2 The borough therefore sees a net inflow of around 4,208 people. Including those who travel within, work from home and who have no fixed place of work, 67.2% of employed Blackburn with Darwen residents live and work in the borough; this is the largest proportion of all the local authorities that make up the Pennine Lancashire area.
- 6.4.3 Figure 6.1 shows the top ten flows of employees (people aged 16 and over in employment) into and out of Blackburn with Darwen. Of the 19,806 people who commute out of the borough to work the largest flows are to the local authorities of Hyndburn, Preston and Ribble Valley. Of the people who travel into the borough for work, the largest flows are from Hyndburn, Ribble Valley and Burnley.

Figure 6.1 – Top ten flows of employees into and out of Blackburn with Darwen, people aged 16 and over in employment



6.5 Mode Share – Journey to Work

6.5.1 One of the questions asked in the 2011 Census was regarding method of travel to work; the question asked: “How do you usually travel to work? Tick the box for the longest part, by distance, of your usual journey to work.”¹⁴ Table 6.1 presents the results of the question in relation to the Study Area at an LSOA level, compared to regional and national data.

Table 6.1 - Method of Travel to Work (% of Trips)

Method of Travel to Work	England	North West	Blackburn with Darwen
Work mainly at or from home	10.64%	9.43%	8.61%
Underground, metro, light rail, tram	3.94%	0.63%	0.07%
Train	5.14%	2.67%	1.57%
Bus, minibus or coach	7.30%	8.09%	5.32%
Taxi	0.48%	0.76%	1.81%
Motorcycle, scooter or moped	0.79%	0.60%	0.52%
Driving a car or van	53.71%	59.15%	60.35%
Passenger in a car or van	4.88%	5.96%	8.07%
Bicycle	2.86%	2.13%	0.97%
On foot	9.76%	10.11%	12.26%
Other method of travel to work	0.49%	0.48%	0.45%

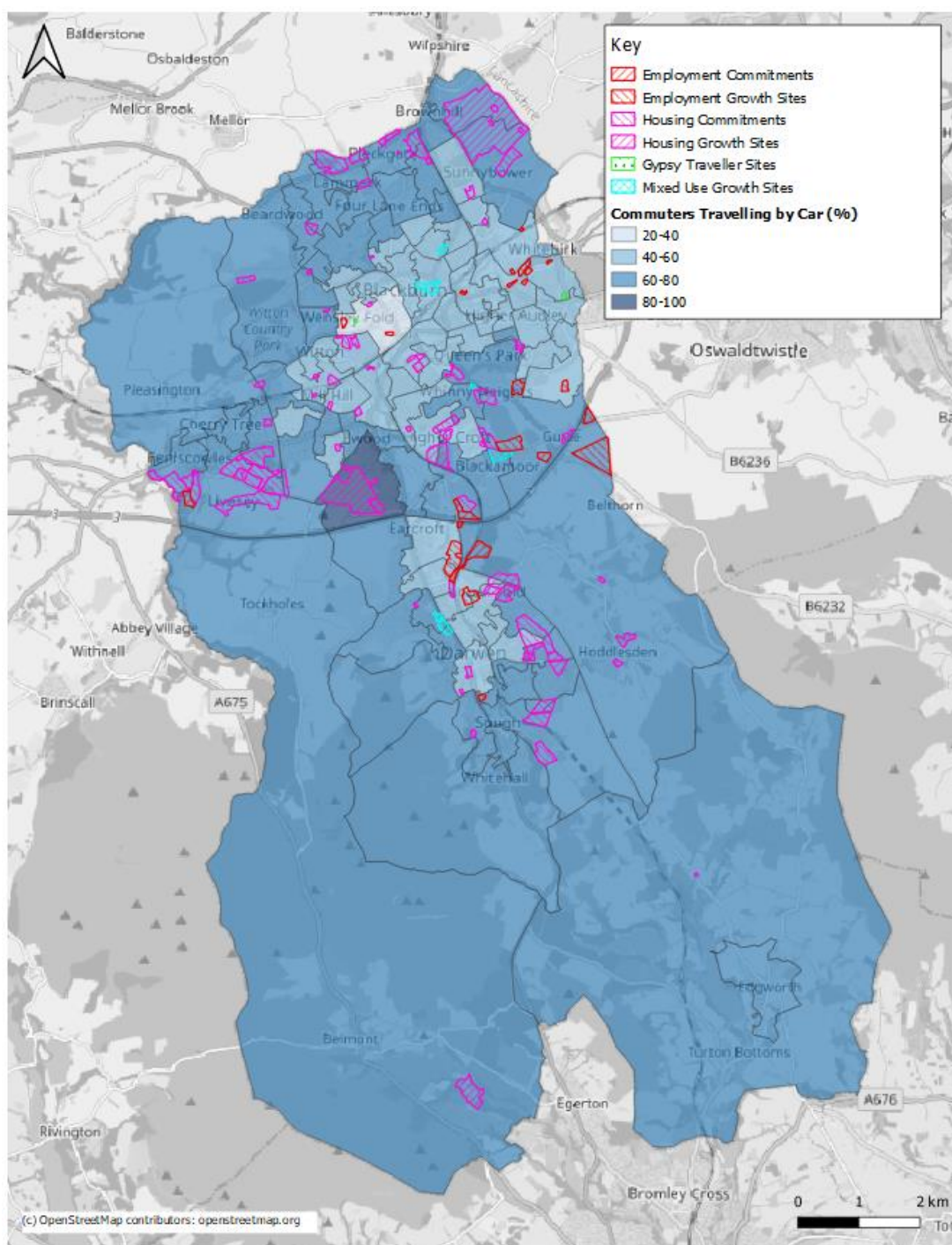
6.5.2 The data in Table 6.1 has been updated to exclude those who are unemployed and shows that there are some differences in the methods of travel to work in Blackburn with Darwen as compared to the regional and national levels.

- 6.5.3 Despite the low levels of car ownership in the borough there is a higher proportion of people travelling to work as a driver or passenger of a car or van than the regional or national at 68.4% as compared to 58.6% for England. The proportion of people using public transport to travel to work in Blackburn with Darwen is also much lower than regionally or nationally at 7% as compared to 10.8% for the Northwest and 16.4% nationally. Blackburn with Darwen is ranked 3rd in England and Wales in terms of travel to work by taxi at 1.81% which compares with 0.48% nationally.
- 6.5.4 As regards walking and cycling, the 2011 census travel to work data provides a mixed picture with Blackburn with Darwen having a higher proportion of people travelling to work on foot but a lower proportion cycling as compared to the Northwest and England.
- 6.5.5 It is likely that the higher proportion of journeys on foot reflects the relatively compact urban areas and the wide variety of facilities, services and employment opportunities in and around the towns of Blackburn and Darwen. The low proportional use of cycling as a mode for travel to work may be indicative of issues relating to the attractiveness of cyclin, due to existing infrastructure and facilities, which may contribute to a perception that it is not a viable commuting mode in the area.

Mode Share – Journey to Work: Car

- 6.5.6 Figure 6.2 shows the percentage of commuters travelling to work by car, for each LSOA of the borough.
- 6.5.7 A higher percentage of people travel to work by car in the borough than any other mode of transport. The percentage of commuters that travel to work by car decreases towards the town centres of Blackburn and Darwen. The town centre has the lowest percentage of commuting by car, which is likely to be influenced by better access to other modes of transport such as bus and rail, and potentially shorter distances to places of work.
- 6.5.8 The more rural areas of the borough typically have higher percentages of car commuters, which could be due in part to limited availability of public transport. These areas include Huddlesden, Edgeworth, Belmont and Belthorn.

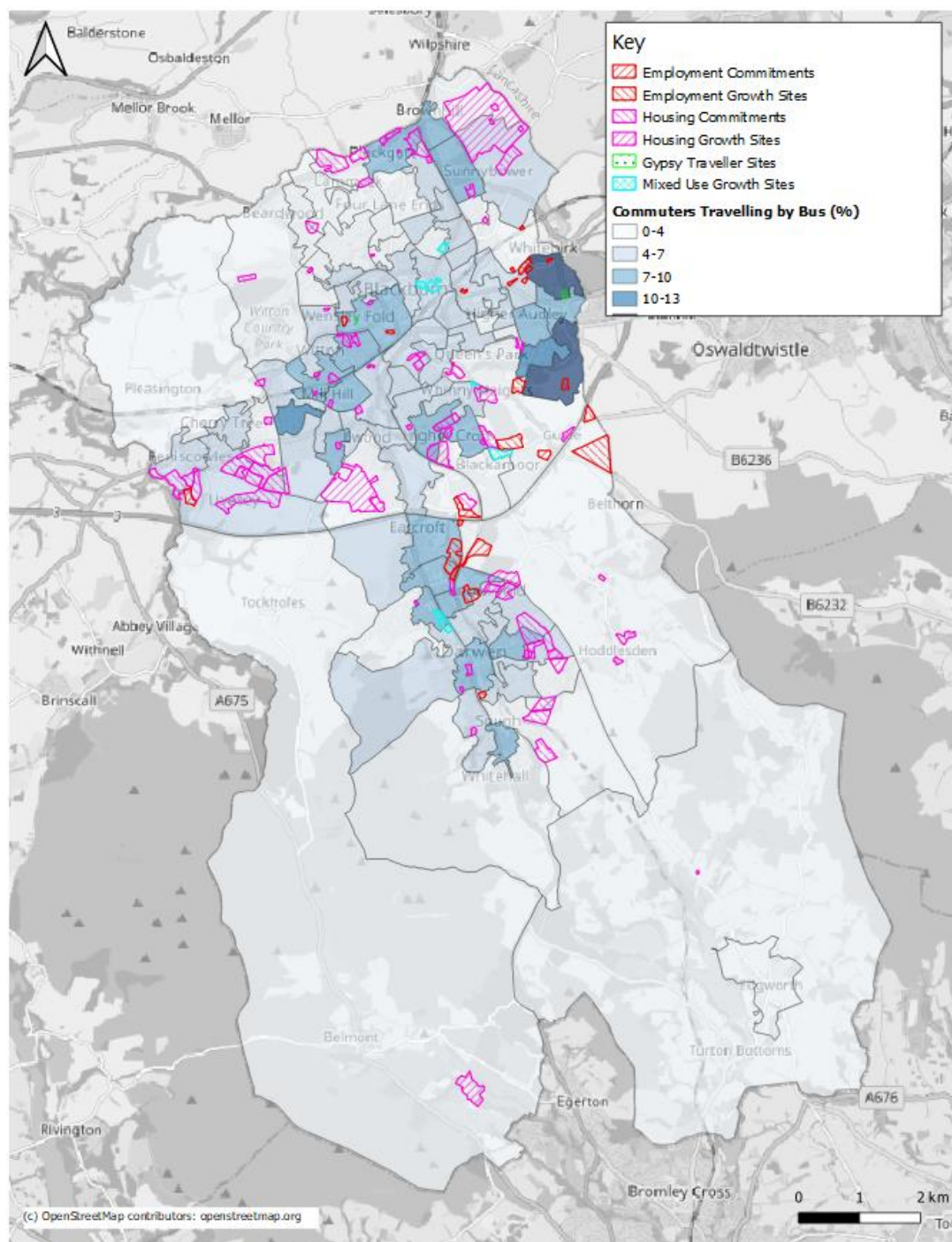
Figure 6.2 – Percentage of commuters travelling to work by car



Mode Share – Journey to Work: Bus

6.5.9 Bus travel is the third most popular mode for travel to work in the borough. Figure 6.3 shows the percentage of commuters travelling to work by bus.

Figure 6.3 – Percentage of commuters travelling to work by bus

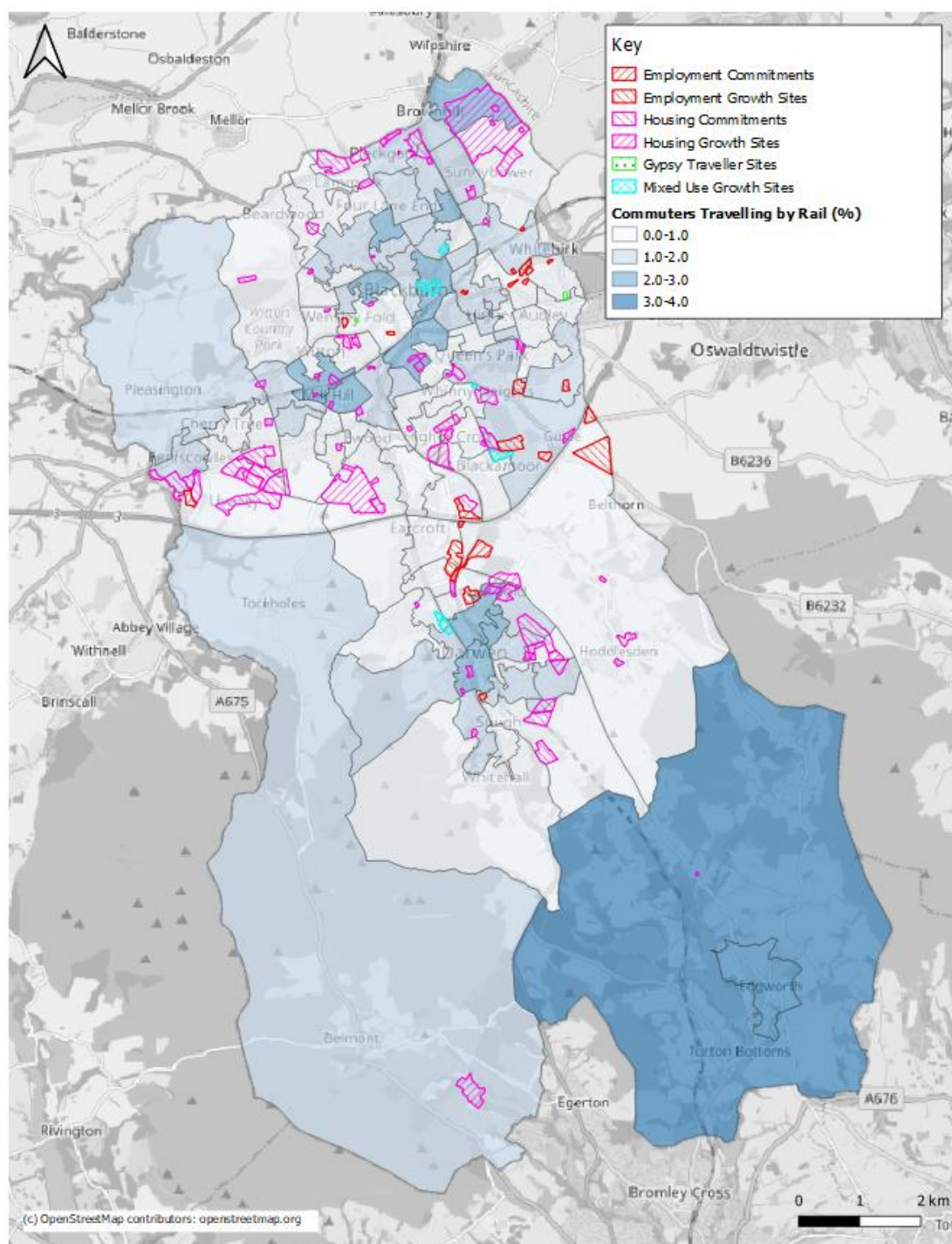


- 6.5.10 The highest percentage of bus commuters is focused around the centre and north east of the borough. The areas of Shadsworth, Intack & Knuzden Brook show some of the highest percentages of bus commuters. This is usually reflective of frequent and reliable bus services which are accessible to commuters.
- 6.5.11 Blackburn town centre sees a convergence of a number of high-quality, high frequency bus routes. The percentage of commuters travelling by bus is relatively low, however this may be indicative of the proximity to employment sites which can be accessed by walking or cycling. Bus usage is known to be higher for shopping and education trips.

Mode Share – Journey to Work: Rail

6.5.12 Figure 6.4 below shows the percentage of commuters travelling to work by rail.

Figure 6.4 – Percentage of commuters travelling to work by rail



6.5.13 Overall, the percentage of travel to work by rail in the borough is low. As expected, the highest rail mode share is found near to the railway stations of Blackburn, Darwen, Ramsgrave & Wilpshire, Mill Hill, Cherry Tree, Pleasington and Entwistle. The large rural area to the southeast of the borough, around Entwistle railway station, has a high percentage of rail commuters. Whilst the mode share here is around 5%, the actual number of users will be relatively low due to the lower population in this part of the borough.

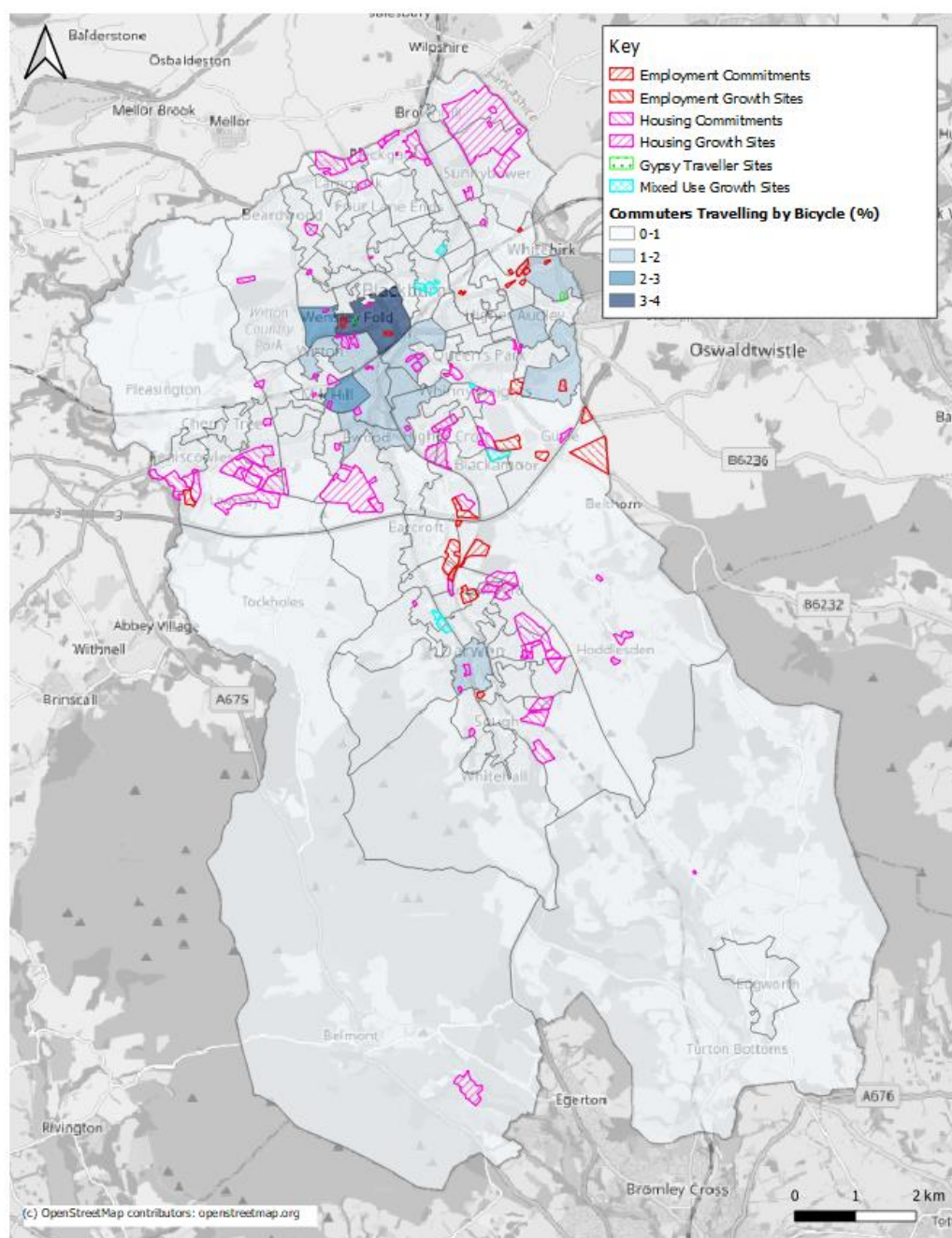
6.5.14 To encourage travel to work by rail, consideration must be given to how easily the commuters can access the nearest railway station and by what mode. Rail trips are usually accompanied by a secondary mode due to proximity of home and work locations to a railway station. For those commuters whose home and work are near to a railway station, walking is often the secondary mode. However, for those who live or work outside of a reasonable walking distance, the car is the preferred choice of secondary mode.

6.5.15 To encourage sustainable travel choices for rail users' secondary mode, railway stations should be accessible to residential areas via frequent bus services and safe, well-connected pedestrian and cycle routes.

Mode Share – Journey to Work: Cycle

6.5.16 Figure 6.5 below shows the percentage of commuters travelling to work by cycling.

Figure 6.5 – Percentage of commuters travelling to work by cycling

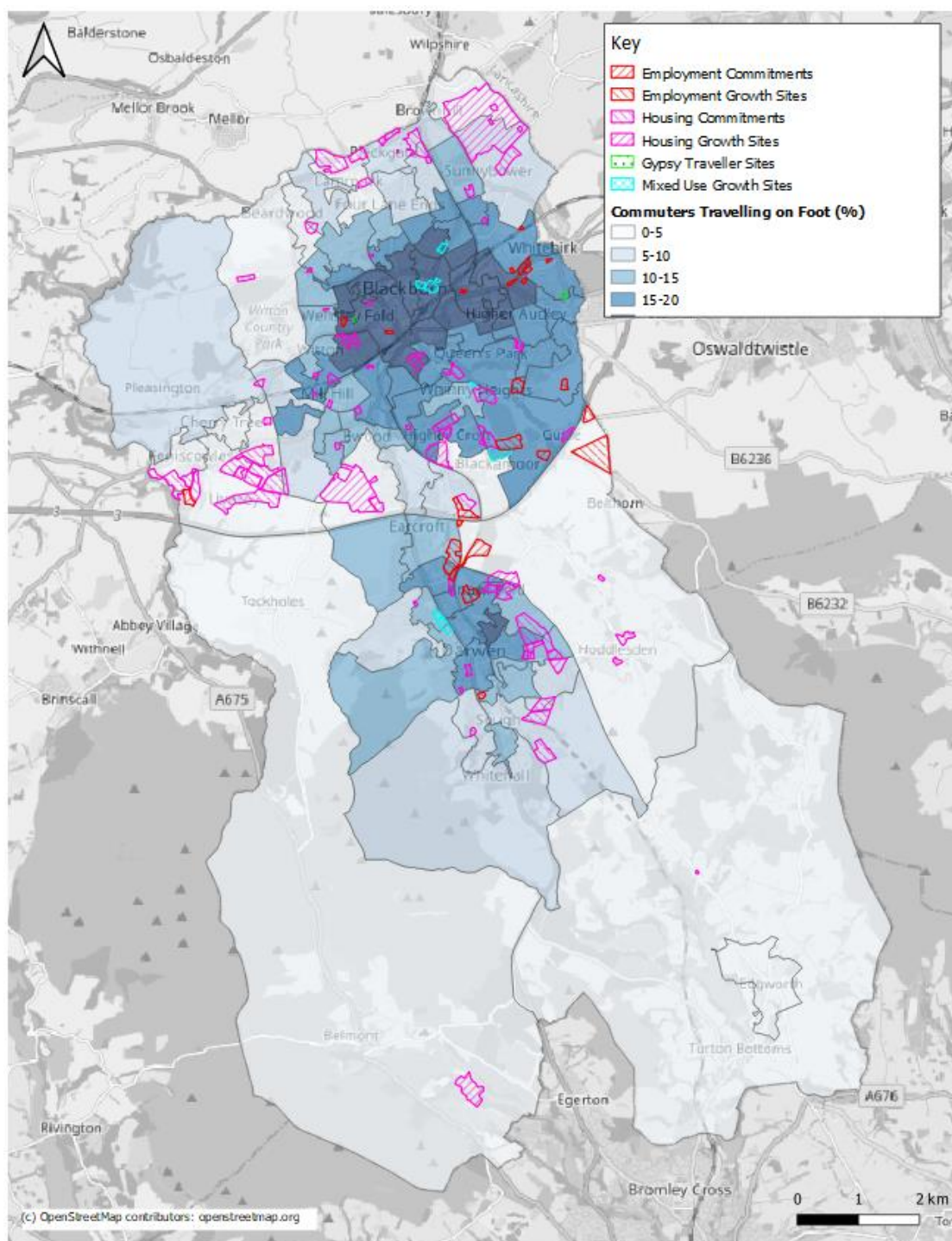


6.5.17 Compared to other modes, there is a low number of commuters currently cycling to work. The areas with the highest percentage of cycling are located to the west of Blackburn town centre. This is usually indicative of good cycle provision and relative proximity of residential areas to employment land uses. It may also be due to commuters undertaking linked trips to work, via cycling and rail. This may be occurring in the borough, as the highest cycle usage is located in areas where rail station accessibility is good.

Mode Share – Journey to Work: Walk

6.5.18 Figure 6.6 below shows the percentage of commuters travelling to work on foot.

Figure 6.6 – Percentage of commuters travelling to work by foot



6.5.19 As expected, the neighbourhoods with higher percentages of walking commuters are located in urban areas where the proximity of residential areas to employment opportunities is closer than in rural areas. Blackburn and Darwen town centres show the highest percentage of commuters travelling on foot.

Mode Share – Study Area Internal Trips

6.5.20 Further analysis was undertaken to isolate those trips that are internal to the LCWIP study area using Census (2011) Origin – Destination data at the MSOA level, identifying methods of commute for those trips with both an origin and destination within the study area. The modal split for internal journeys to work is displayed in Table 6.2.

Table 6.2– Method of Travel with Origin and Destination within Blackburn with Darwen Study Area

Method of travel to work	Number	Percentage
Train	178	0.6%
Bus, minibus or coach	2,168	6.8%
Taxi	870	2.7%
Motorcycle, scooter or moped	167	0.5%
Driving a car or van	18,197	57.2%
Passenger in a car or van	3,165	10.0%
Bicycle	447	1.4%
On foot	6,497	20.4%
Other method of travel to work	106	0.3%
Total	31,801	100%

6.5.21 A total of 31,801 internal commuter trips within the study area are made per day. The most preferred method of traveling to work is driving a car or a van, which accounts for 57.2% of all trips made. The second most preferred method of commuting, as before, is on foot at 20.4%. This is a significant increase in comparison with the modal split when assessing all trips, likely reflecting the average shorter distance of internal trips, and it could be anticipated that other active modes of transport, such as cycling, would also be accordingly higher. Yet, the cycle commuting trips are only 1.4%, which remains less than the regional and national average levels.

6.5.22 When considering all possible destinations (internal and external), a total of 51,467 journeys to work were identified, meaning approximately 61.8% of journeys to work that originate in the study area are internal. The vast majority of these trips likely occur over a desirable walking or cycling distance and yet do not use these modes, indicating the potential to induce more active travel trips through the provision of high-quality infrastructure.

Journey Purpose

6.5.23 The National Travel Survey, published yearly by the DfT, is a household survey designed to monitor long-term trends in personal travel and to inform the development of policy. It is the primary source of data on personal travel patterns by residents of England within Great Britain.

6.5.24 While the data can be assessed at a national and regional level, as well as by different types of rural-urban residence classification, the data cannot be obtained at any further level of disaggregation and therefore the applicability of the analysis is limited. Table 6.3 compares the percentages of trip rates by trip purpose for the Northwest to those of England overall.

Table 6.3 - Average Proportion of Trips per Person by Trip Purpose

Trip Purpose	2020		2018/19	
	Northwest	England	Northwest	England
Commuting	14%	15%	16%	16%
Business	2%	2%	3%	3%
Education (including escort)	17%	14%	14%	14%
Shopping	23%	23%	21%	20%
Other escort & Personal Business	17%	18%	20%	19%
Visit friends	14%	14%	14%	15%
Other leisure	13%	14%	12%	13%

6.5.25 Table 6.3 suggests that the breakdown of purposes for making trips for residents in the Northwest is nearly identical to that of England overall. It shows that trips are being made for a wide variety of reasons, and that if the LCWIP adopts a strategy that only addresses a particular purpose (or a small number of purposes), it will only reach a relatively small portion of trips.

6.6 Trip Length

6.6.1 Distance Travelled to Work data obtained from the 2011 Census was analysed to determine average trip lengths and evaluate the potential for shorter trips undertaken by other modes to be converted into walking or cycling trips.

6.6.2 Table 6.4 below shows the percentage of usual residents in employment travelling certain distances to work under 10km, and compares the data for the study area, Northwest, and England. The table also shows the average commute distance for all trips to work. Note that beyond a distance of approximately 7km, the propensity to cycle significantly reduces.

Table 6.4 - Distance Travelled to Work (% of Workers)

Distance	Blackburn with Darwen	North West	England
Less than 2km	22%	18%	17%
2km to less than 5km	25%	21%	18%
5km to less than 10km	16%	19%	17%
10km or more	24%	26%	29%
Work mainly at or from home	8%	9%	10%
No fixed place	6%	7%	8%
Total Under 5km	47%	39%	35%
Total Under 10km	62%	58%	52%
Average distance (km)	9.7	14.5	14.5

6.6.3 Walking is often considered the most important mode of travel at a local level; guidance on the preferred maximum walking distances to amenities is given in the Chartered Institute of Highways and Transportation [CIHT] document Providing for Journeys on Foot (2000), which states a preferred maximum walking distance for commuting of 2km. While journeys under 2km are generally recognised as those with the potential to be undertaken on foot, it stands to reason that with a conducive environment these trips could also be undertaken by bicycle.

6.6.4 It is widely recognised that cycling can act as a substitute for short car journeys, particularly those up to 5km in length; 3 miles (5km) is referred to in the DfT's 'Cycle Infrastructure Design' (2008) guidance as being appropriate for many utility cycle journeys. More recent guidance within 'Creating Growth & Cutting Carbon' (2011) identifies a greater 5-mile (8km) distance.

- 6.6.5 Table 6.4 shows that Blackburn with Darwen currently has significantly higher proportions of people travelling less than 2km and 5km to work than the North West and England averages. This is likely to be a result of the LCWIP study area being made up of two distinct urban areas in Blackburn and Darwen with various small villages surrounding these.
- 6.6.6 Of those currently travelling under 10km, many journeys are likely to involve trips between these areas along routes lacking cycling infrastructure, with many also be lacking footways. This is likely reflected in the high proportion of trips within the study area currently being made by car, rather than other modes.

7 Existing Transport Networks: Cycling and Walking

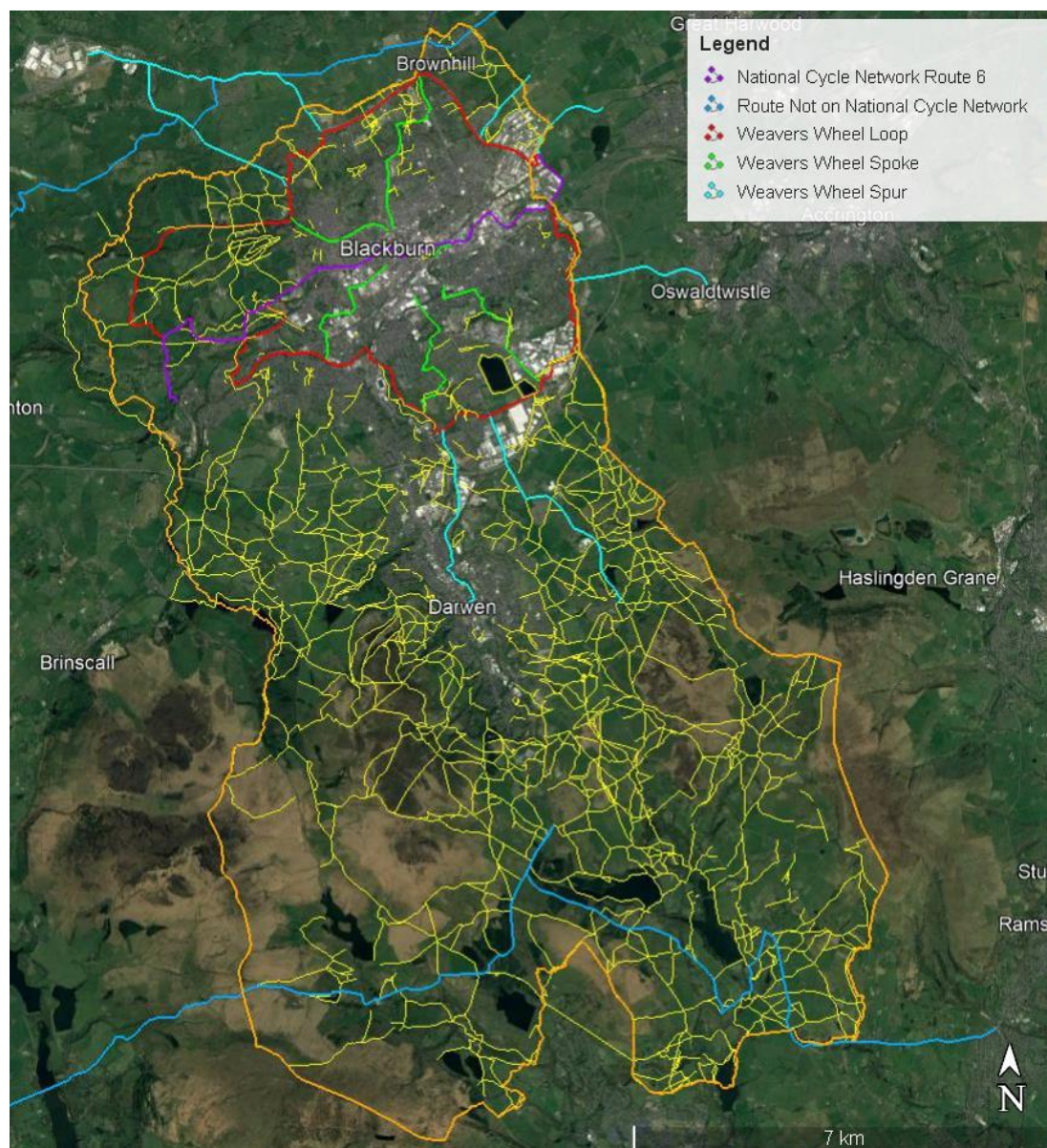
7.1 Existing Cycling and Walking Networks

- 7.1.1 This section of the report provides further information relating to existing walking and cycling infrastructure within the Blackburn with Darwen LCWIP study area. The section focusses more closely on cycling and cycle users, as walking for any purpose is considerably more prevalent than cycling nationally.
- 7.1.2 The needs of pedestrians have long been catered for through the provision of footways; while sometimes inadequate or substandard, the presence of a footway nevertheless facilitates some movement on foot. The needs of cycle users have been poorly understood until recently, and the lack of cycle-specific infrastructure has been identified as one of the key factors in suppressing demand.
- 7.1.3 Figure 7.1 shows the existing cycling and walking network in the study area (excluding highway infrastructure). The image includes Public Rights of Way (PROW) shown by the yellow lines, The Weavers Wheel local cycle network, the National Cycle Network Route 6 and two other recognised routes not on the National Cycle Network which appear on the Sustrans map.
- 7.1.4 Blackburn with Darwen Borough Council do not hold any detailed GIS data relating to cycling infrastructure provision. The cycle networks in neighbouring authorities shall also be considered when network planning to ensure convenient connectivity where appropriate.
- 7.1.5 The study area includes an extensive PROW network; this presents various opportunities to create more permeable walking and cycling networks away from vehicular routes, which can also enhance access to longer distance recreational routes.
- 7.1.6 There are good cycling opportunities in Blackburn with Darwen with access to the National Cycle Network (Route 6) which passes through Blackburn town centre.
- 7.1.7 While the majority of Blackburn with Darwen's footpaths, bridleways, byways and cycle routes are public rights of way (PROWs), the Leeds & Liverpool Canal towpath is classified as a 'permissive path'.

Weavers Wheel

- 7.1.8 Weavers Wheel is a 26km route encircling Blackburn Town Centre. As well as the main wheel there are spurs radiating out to key employment locations such as Samlesbury Enterprise Zone and Whitebirk as well as spokes into Blackburn Town Centre providing direct access to local employment, education, retail and leisure opportunities for cyclists and walkers.
- 7.1.9 Weavers Wheel was funded through the Lancashire Local Enterprise Partnership delivering a strategic cycle network for Blackburn with Darwen, and forms part of the wider East Lancashire Strategic Cycle network.

Figure 7.1 – Blackburn with Darwen Existing Cycle Network and PRow



Leeds & Liverpool Canal

7.1.10 The Leeds & Liverpool Canal is the longest canal in Britain built as a single waterway at 127 miles in length. The canal is a significant built and natural asset within Blackburn with Darwen passing through the centre of Blackburn.

7.1.11 The Canal provides a resource as a wildlife and habitat corridor; a recreational route for walking, canoeing, cycling and running; a route for commuters who walk or cycle along the towpath to get to work or school; and as a tourism asset for those pursuing holidays on narrow boats as well as day-trippers seeking a place for peace and reflection. The industrial heritage of the Leeds & Liverpool Canal is one of the defining elements of the area and provides a rich historic environment for current and future generations to enjoy.

7.2 Existing Uptake of Walking & Cycling

7.2.1 Table 7.1 below, presents data from the Active Lives Survey for Sport England showing the proportion of residents who walk or cycle at least once per month. As shown, the figures for Blackburn with Darwen are below average when compared to figures for Lancashire, the North-West, and England.

- 7.2.2 The full dataset shows that cycling rates varied across Lancashire and were below 10% in the East Lancashire authorities of Burnley, Blackburn with Darwen, Hyndburn, Pendle and Rossendale. The estimate for Blackburn with Darwen of 7.9% is the 8th lowest in the country.

Table 7.1 - Residents Walking or Cycling at Least Once per Month⁸

Area	Walk %	Cycle %
Blackburn with Darwen	70.1	7.9
Lancashire	76.2	13.9
North West	76.3	13.8
England	78.2	16.1

- 7.2.3 Whilst factors such as the natural topography of the region may limit the uptake of cycling, the data still suggests that there is an opportunity to increase cycle uptake in line with regional and national averages.
- 7.2.4 The low walking and cycling numbers are recognised by Blackburn with Darwen Borough Council with greater levels of walking and cycling being actively encouraged through existing LTP investment, DfT walking and cycling funds, DfT Capability Funding, and BwD CONNECT strategies and programmes.

⁸ DfT 2017/18 Active Lives Survey for Sport England

DfT Count Point Data

7.2.5 Table 7.2 below shows the DfT Countpoint Data⁹ for the annual average daily number of cyclists recorded at a number of locations on A-roads throughout Blackburn with Darwen. Due to the nature of the DfT countpoint data it should be noted that many of the figures shown are likely to be estimates rather than raw data counts.

Table 7.2 – Annual Average Daily Cycle Counts on BwD A-Roads by Year

Road	Start Junction	End Junction	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Grand Total
A666	A677	A6119	87	56	63	63	63	70	66	65	63	59	35	34	46	44	41	1220
A666	LA Boundary	B6193	36	37	37	34	34	30	28	22	22	22	22	22	5	5	7	583
A674	A6062	A674 Freckleton St/King St	58	35	58	58	58	64	61	60	58	54	50	55	60	66	76	1072
A6062	A674	A666	110	70	78	78	78	86	81	61	59	55	51	49	54	60	68	1378
A6119	A679(T)	A678	27	17	19	24	24	26	25	24	24	57	53	51	56	61	70	746
A678	A677	A6119 roundabout	35	22	24	29	29	32	30	30	29	27	25	17	19	21	25	519
A679	B6236	A6199	64	40	45	45	45	50	47	47	45	30	28	27	30	33	31	856
A666	B6391	Lark St	22	22	22	26	26	22	21	20	16	33	33	33	32	39	50	508
A674	LA Boundary	A6062	31	31	31	40	41	36	34	86	68	68	68	72	70	85	109	1120
A6119	Philips Rd	LA Boundary	76	76	76	57	34	19	18	18	14	14	40	38	42	46	49	944
A679	A677	B6236	54	33	38	35	35	39	37	36	35	33	31	29	40	44	31	802
A6078	A666	Quarry Street	67	42	47	47	47	52	35	35	33	31	29	36	40	44	51	905
A666	M65	A6062 intersection	112	58	155	155	155	171	162	160	155	144	134	65	72	79	91	2581
A677	A6119	Beardwood	40	40	29	33	33	29	30	29	24	23	23	23	25	28	32	701
A6078	A677	A666	75	47	52	41	41	45	43	45	43	40	37	36	38	42	48	1024
A679	A678	Audley Range	46	29	32	52	52	57	54	53	52	48	45	43	54	59	55	913
A6119	A677	Whinney Lane	6	6	6	7	23	20	19	19	15	20	20	20	24	30	30	306
A675	LA Boundary	LA Boundary	36	33	27	31	31	27	25	25	20	20	66	66	65	79	100	937
A679	A6119	LA Boundary	37	38	38	44	66	57	53	53	42	42	55	56	67	66	84	1145
A666	A6119	LA Boundary	119	75	84	84	84	45	43	42	41	38	35	34	38	87	100	1487
A666	Watery Lane	M65 slip	51	105	129	129	129	143	135	134	130	120	112	107	63	70	80	2299
A677	B6477	A6078	21	13	14	14	14	16	15	21	20	19	17	17	18	20	23	435
A678	A6119	LA Boundary	34	36	36	20	54	30	28	30	24	29	29	29	28	50	64	651
A666	Lark St	Watery Lane	25	25	25	28	30	25	23	23	18	37	37	37	44	44	56	579
A677	Beardwood	B6447	44	45	32	37	38	32	33	33	26	26	26	25	29	31	35	781
A6119	A666	Philips Rd	76	76	76	57	34	19	18	18	14	14	40	38	43	47	54	985
A6119	Whinney Lane	A666	7	4	5	5	10	29	27	27	26	24	23	22	24	13	14	297
A678	A6078	A679	45	28	32	32	32	76	72	71	69	64	53	50	56	61	69	741
A6078	Quarry Street	A678	73	45	50	50	50	72	68	67	65	61	57	62	69	76	86	951
A6078	Park Road	A678	23	14	16	16	16	18	17	17	31	29	27	26	29	31	36	346
A6078	Canterbury Street	A6077	48	30	34	34	34	38	36	35	16	14	13	13	14	16	18	393
A6077	A6078	Bennington Street	19	12	13	13	13	14	13	13	17	16	15	14	16	17	20	225
A6078	A666	A6077	49	31	34	34	34	38	36	35	28	26	24	23	32	35	40	499
A666	A666	Canterbury Street	64	40	45	45	45	50	47	47	43	40	37	36	39	43	49	670
A6078	A674	A677	42	26	29	29	29	33	31	31	30	28	37	35	39	43	48	510
A666	A6062	A6078	99	62	70	70	70	82	78	77	74	69	93	89	98	108	123	1262
TOTAL			1858	1399	1601	1596	1631	1692	1589	1615	1489	1474	1520	1429	1514	1717	1963	31371

7.2.6 It can be seen from Table 7.2 that the A666 has the highest recorded number of cyclists during the period 2006 to 2020 with the to highest counts and five of the top ten count locations in the borough. The locations on the A666 with the highest average cycle numbers of over 100 per day are to the north and south of the junction with Earcroft Way close to M65 Junction 4. Other roads with reasonable numbers of cyclists include the A674, A6062, A679 and A6078.

Blackburn Cordon Count

7.2.7 The total number of people travelling into Blackburn town centre has been recorded in 2018 and 2021 at 17 cordon points. The counts record the number of people entering the cordon by all modes including pedestrians and cyclists. All surveys were carried out between 07:30 to 09:30, 10:30 to 12:00, 13:00 to 14:30 and 15:30 to 18:00; data was recorded in 30 minutes intervals. The results are provided in an excel spreadsheet.

7.2.8 Table 7.3 below presents a comparison of the 2021 and 2018 (Pre-Covid19) cordon count data.

⁹ Road traffic statistics - Local authority: Blackburn with Darwen (dft.gov.uk)

Table 7.3 – Blackburn Town Centre Cordon Count Data 2018 & 2021

Mode	2018 Totals People	2018 Mode %	2021 Total People	2021 Mode %
Pedestrian	10100	11.94%	8833	11.63%
PC	212	0.25%	383	0.50%
MC	97	0.11%	151	0.20%
Cars-LGV	68234	80.68%	62704	82.53%
HGV	1395	1.65%	867	1.14%
Bus	2210	2.61%	1595	2.10%
Train	2330	2.75%	1440	1.90%
TOTAL	86788		77568	

7.2.9 Table 7.3 shows that the total number of people entering Blackburn town centre on a neutral day in June 2021 was approximately 9000 lower than in 2018. This is likely to be largely because of Covid-19 and associated impacts such as increased levels of home working and isolations.

7.2.10 2021 saw an increase in the number of people entering Blackburn town centre by motorcycle and pedal cycle while public transport use saw a significant decline.

Darwen Cordon Counts

Table 7.4 – Darwen Town Centre Cordon Count Data 2018 & 2021

Mode	2018 Totals People	2018 Mode %	2021 Total People	2021 Mode %
Pedestrian	4552	17.18%	3881	13.83%
PC	124	0.47%	158	0.56%
MC	43	0.16%	77	0.27%
Cars-LGV	20533	77.48%	22448	80.01%
HGV	628	2.37%	637	2.27%
Bus	226	0.85%	261	0.93%
Train	396	1.49%	593	2.11%
TOTAL	26502		28055	

7.2.11 Table 7.4 shows that there are around a third of the number of people entering the Darwen town centre cordon area as compared to Blackburn town centre cordon area. The modal split of those entering is similar to that for Blackburn although there are notably higher proportions of pedestrians and lower proportions of bus users.

Strava Data

7.2.12 Strava is a social fitness network, primarily used to track cycling, running and swimming activity and typically uses GPS. Strava is a free service (although paid features are available) and, in 2018, the developers claimed to be adding a million new users every 45 days, with circa 8 million activities uploaded each day.

7.2.13 Basic Strava data is published freely online and is available as a heatmap showing where activities are most concentrated. This free data has significant limitations when it comes to analysis, as the heatmap only shows usage in comparison with other routes, rather than actual numbers. Strava data is also more likely to be recorded by those undertaking activities for leisure or competitive purposes, rather than by those commuting, and by certain age groups and demographic. Nevertheless, the heat maps can be useful in broadly showing where cycling (and running / swimming / walking) occurs and, specifically, where these activities take place regardless of a lack of infrastructure or legal right of way.

- 7.2.14 Figure 7.2 and Figure 7.3 show Strava cycling data of the study area around Blackburn and Darwen, displayed as a heat map. Note that white denotes the ‘hottest’ routes, i.e., those with the highest relative usage, while dark red routes are considered ‘cool’, as they have the least number of relative users.
- 7.2.15 Within Blackburn with Darwen there were 186,700 recorded run/walk/hike activities in 2020 up by 124.4% on 2019 figures. There were also 57,400 recorded cycle activities, up by 53.8%. The run/walk/hike activities were recorded by 18,300 people an increase of 108.2% on 2019 and the cycle activities recorded by 5,500 people an increase of 75.5% on 2019. It is likely that the significant increases in activities recorded are at least in part because of Covid-19 lockdowns and the associated increases in physical activity seen during periods of lockdown.

Figure 7.2 - Strava Data: Cycling in and around Blackburn



- 7.2.16 The Strava heatmap data indicates a broad alignment with the Propensity to Cycle Tool (PCT) routes discussed in section 2.11, which predicts existing and future cycle flows based on journey to work data.
- 7.2.17 The ‘white-hot’ routes (indicating comparatively high usage) are concentrated in the southwest of Blackburn and tend to appear on the major roads and the Leeds & Liverpool canal.

Figure 7.3- Strava Data: Cycling in and around Darwen



- 7.2.18 The ‘white-hot’ routes within Darwen tend to be north-south routes including the arterial A666 and Roman Road. There are however some East-West routes to the south of the study area.

Pedestrian and Cyclist Collision Data

- 7.2.19 Collisions involving pedestrians and cycle users can be seen as a barrier to choosing walking or cycling above motorised transport, as they have a negative effect on both perceived and actual safety. However, existing data on collisions can only provide some additional context regarding barriers to active travel. A poor route or junction may suppress demand to such an extent that the numbers of walkers or cyclists are negligible or non-existent. Furthermore, the data only records accidents that cause injury; there are no records of near-misses or damage-only accidents.
- 7.2.20 Figures 7.4 to 7.13 that follow show the location and severity of accidents involving pedestrians or cycle users within the LCWIP study area from 2016 to 2020.

Figure 7.4 - Darwen (North) Pedal Cycle Collisions 2016-2020

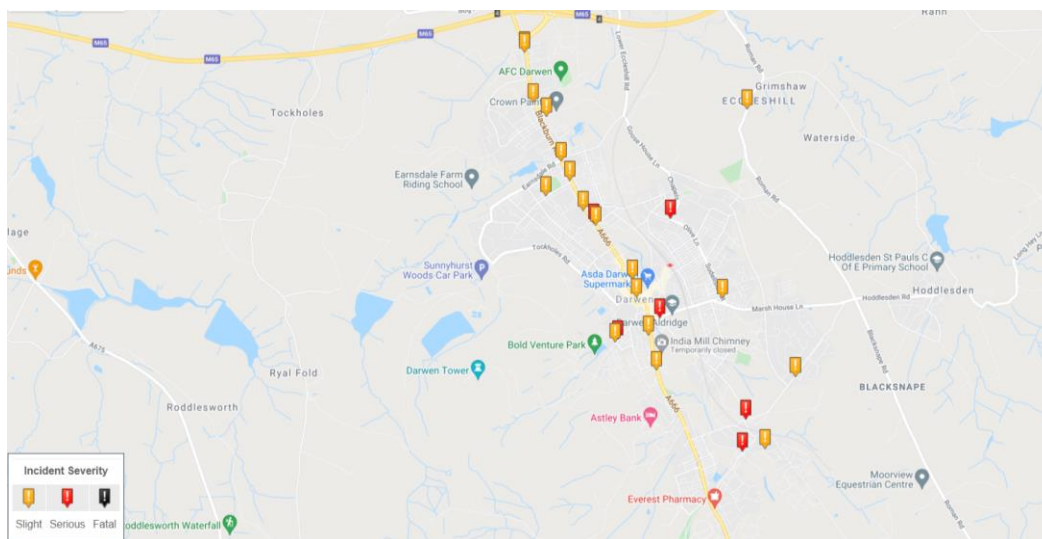


Figure 7.5 - Darwen (North) Pedestrian Collisions 2016-2020

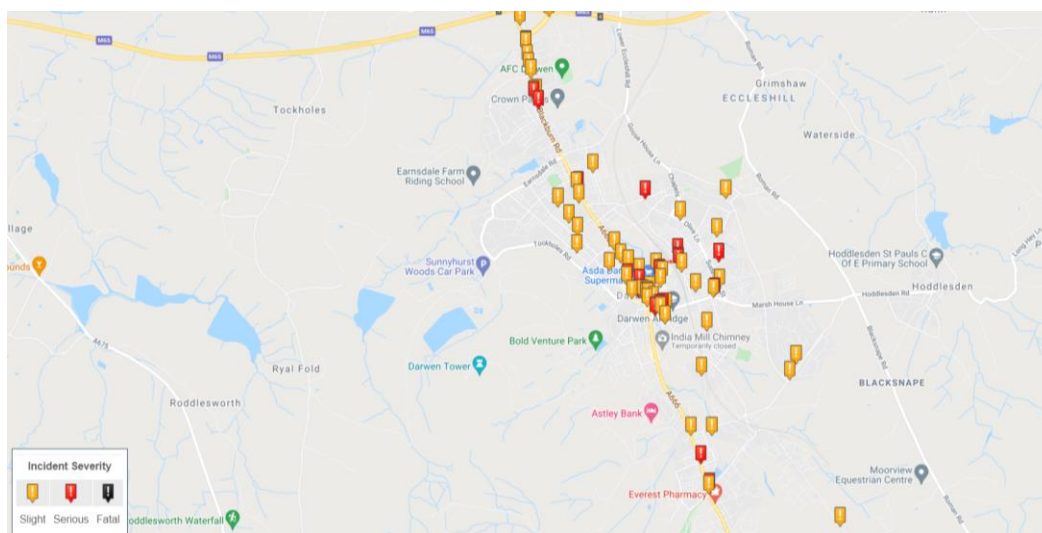


Figure 7.6 - Darwen (South) Pedal Cycle Collisions 2016-2020

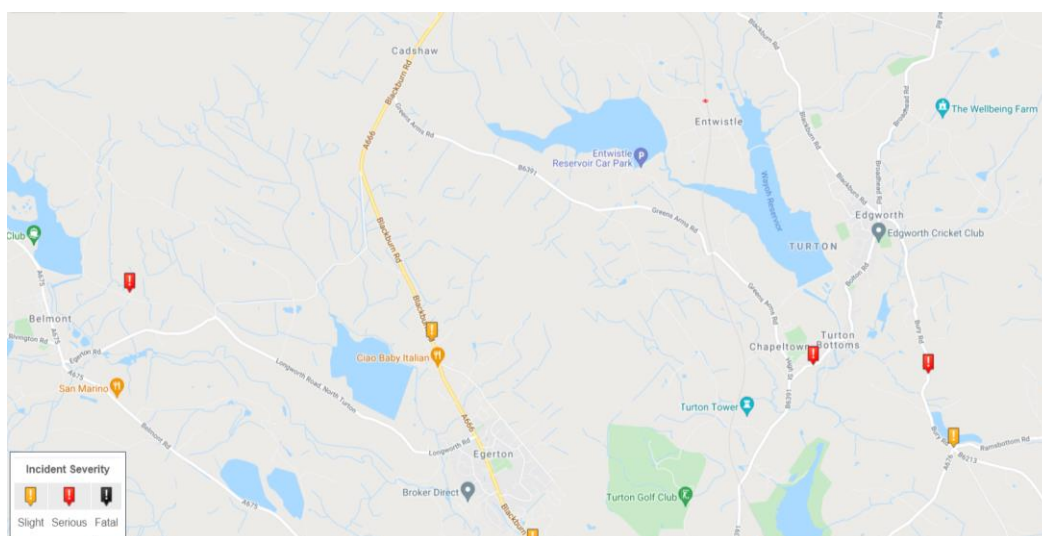


Figure 7.7 - Darwen (South) Pedestrian Collisions 2016-2020

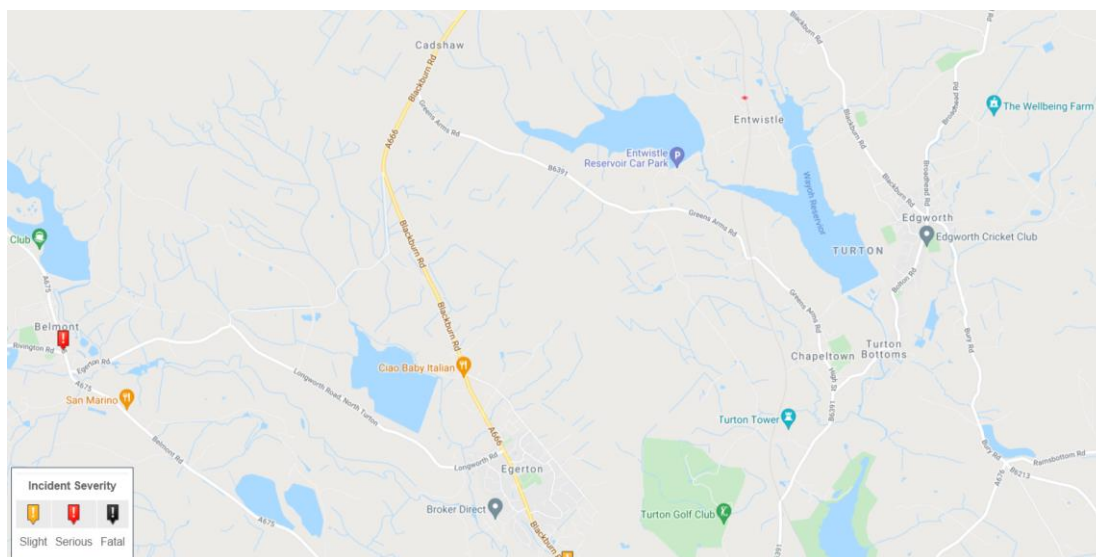


Figure 7.8 - Blackburn Pedal Cycle Collisions 2016-2020

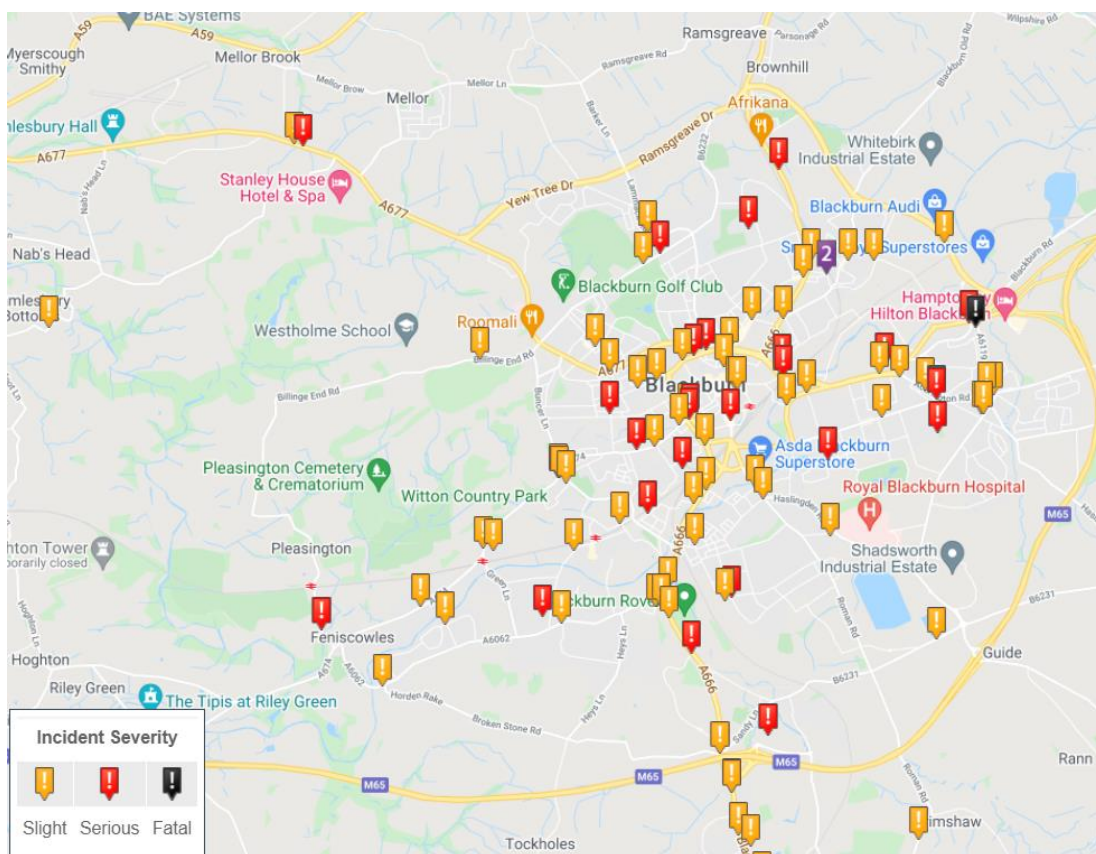


Figure 7.9 - Blackburn North Pedestrian Collisions 2016-2020

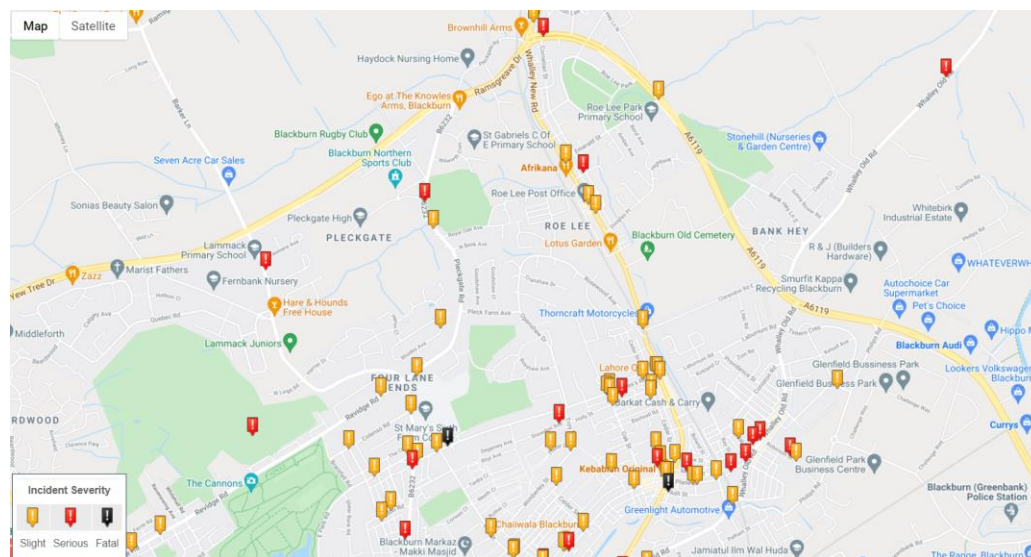


Figure 7.10 - Blackburn Pedestrian East Collisions 2016-2020

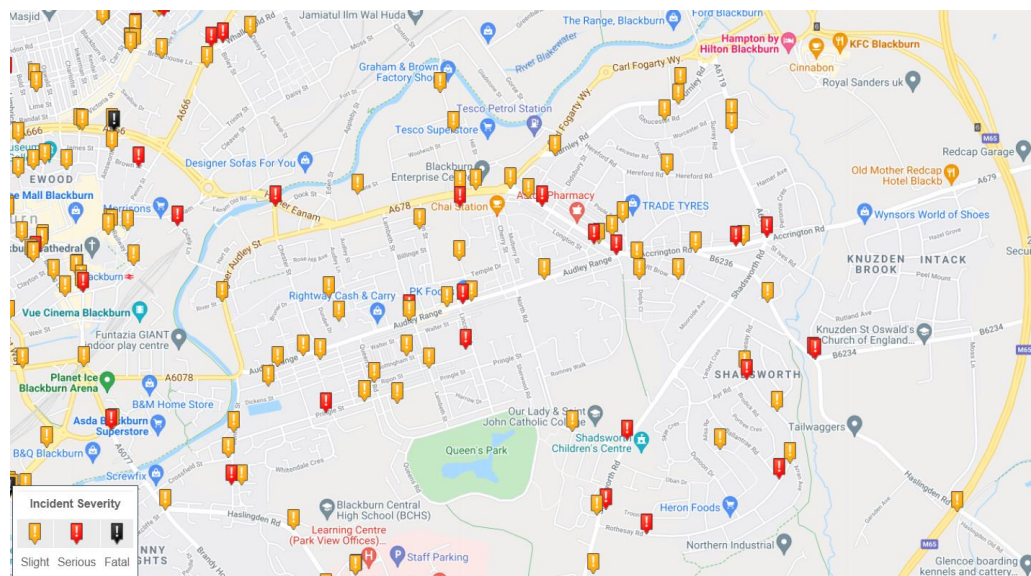


Figure 7.11 - Blackburn Pedestrian South Collisions 2016-2020

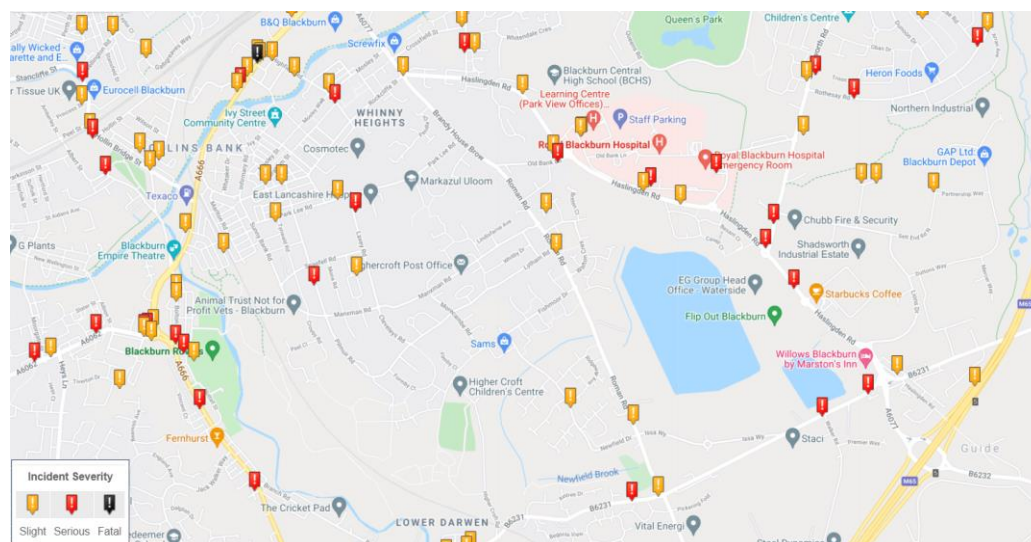


Figure 7.12 - Blackburn Pedestrian West Collisions 2016-2020

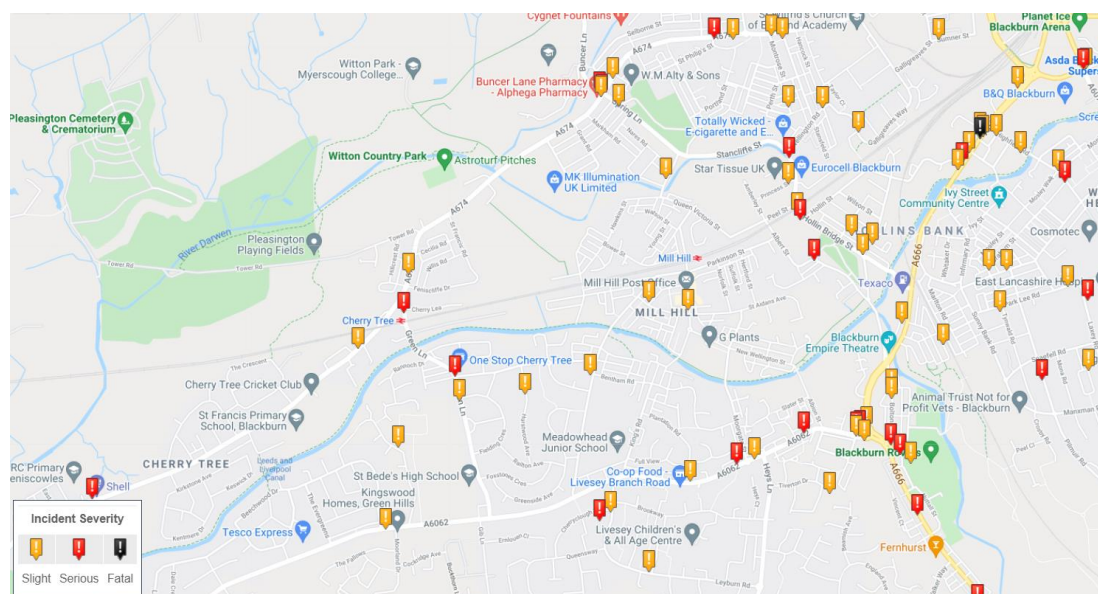
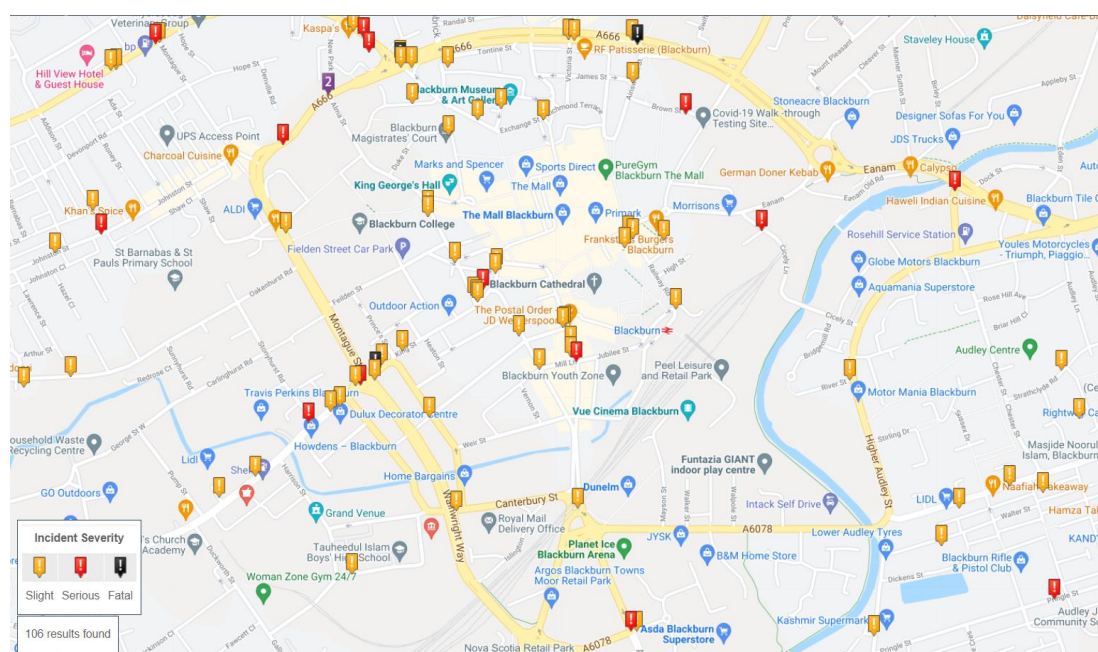


Figure 7.13 – Blackburn Town Centre and Orbital Route Collisions 2016-2020



7.2.21 The figures above show all collisions over the 5-year period between 2015 and 2020. It can be seen that there has been a single fatal collision involving a pedal cyclist which occurred at the Red Lion roundabout (A6119 / Carl Fogarty Way) in 2018. Over the same period there has been six fatal collisions involving pedestrians all of which occurred in Blackburn with three on the orbital route. Two occurred on the A666 north and south of the town centre and the other on St. James’s Road north of Blackburn town centre.

7.2.22 The data shows that where accidents occur in close proximity, this is typically along arterial roads or at junctions where there is also a higher number of vulnerable road users, such as pedestrians crossing.

7.2.23 Across the Study Area, the following routes or junctions are identified as potential accident spots:

- A666 Blackburn Road, Darwen between Earcroft Way and Hollins Road

- A666 Darwen Circus, Darwen
- Hardman Way, Darwen between A666 and Bank Street
- Atlas Road / Kay Street junction, Darwen
- Plane Street and Whalley Old Road, Blackburn between A666 and Robinson Street
- A677 Preston New Road, Blackburn between Barbara Castle Way and Montague St
- King Street, Blackburn between Stonyhurst Road and Mincing Lane
- Accrington Road, Blackburn between Carl Fogarty Way and Shadsworth Road
- A666 Bolton Road, Blackburn between Livesey Branch Road and Tweed Street

7.2.24 Any existing accident issues will be considered when developing any potential interventions. The need for intervention to address accident hotspots will also be considered when prioritising routes for design and investment.

Walking and Cycling Isochrones

7.2.25 Active travel isochrones have been produced encompassing the LCWIP study area, identifying the areas that could reasonably be accessed by walking or cycling from a central point of interest.

7.2.26 While Blackburn and Darwen are in close proximity with strong links between the two, there are few destinations between. It is therefore considered that the two areas should be assessed separately, analysing short trips within each area and longer strategic opportunities for cycle connectivity between the two.

7.2.27 The isochrones produced therefore use Blackburn town centre (Old Town Hall) and Darwen town centre (Darwen Leisure Centre) as the origin points. These focal points are considered to be the urban centres of the study area, highlighting the maximum desirable active travel distances to some of the main commercial and employment centres. While more comprehensive isochrone mapping from various strategic locations will form a key part of developing the Walking Network Map, these isochrones are used to help determine the extent of the study area for each location.

7.2.28 The NPPF and other established guidance documents on access to services and facilities (for example, Guidelines for Providing for Journeys on Foot, CIHT 2000) recognise that, beyond a certain distance, it becomes increasingly unlikely that people will walk or cycle to access services and facilities, instead using public transport or private motor vehicles.

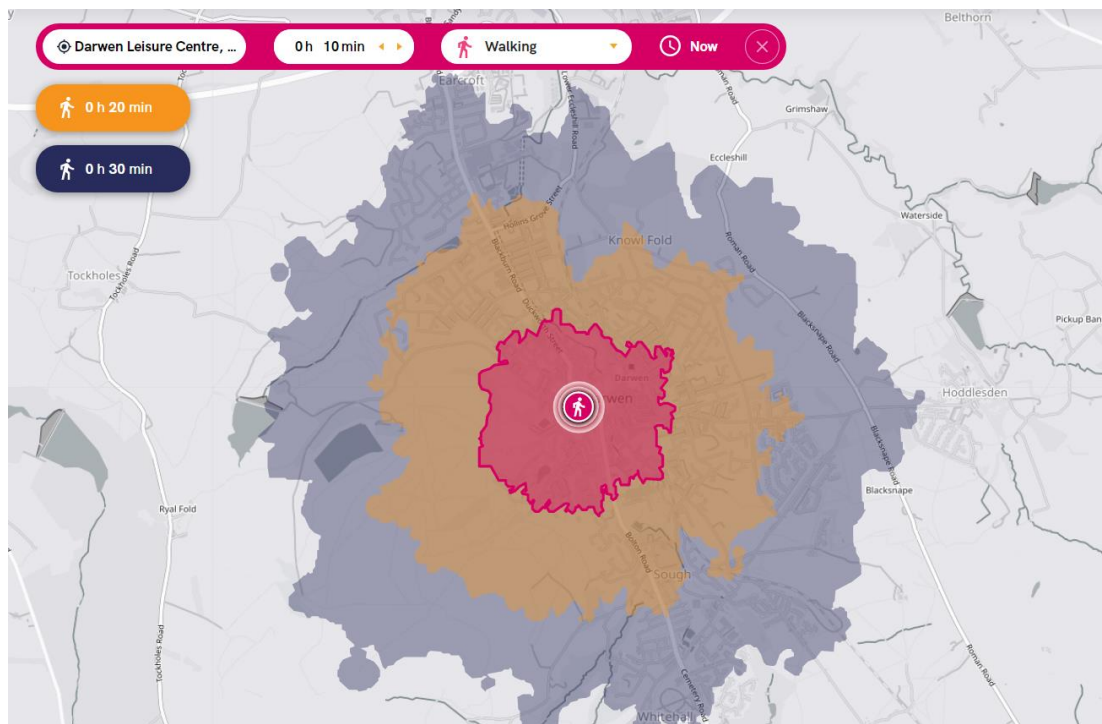
7.2.29 The Institute of Highways and Transportation sets out guidance on walking distances for different trip purposes, as set out in Table 7.2.

Table 7.5 – IHT Preferred Walking Distances

	Town Centres (m)	Commuting / School / Sight-seeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1000	800
Preferred Maximum	800	2000	1200

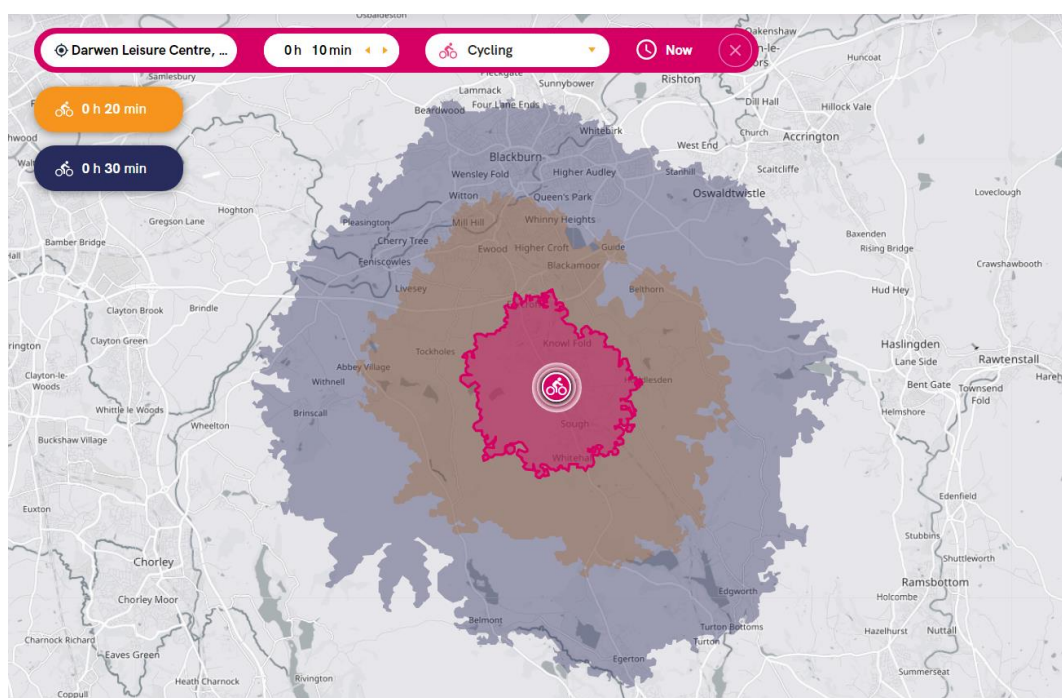
- 7.2.30 The maximum desirable cycle distance varies depending on the journey purpose and the experience of the cyclist although 5km is commonly accepted as a reasonable cycle distance.
- 7.2.31 Analysis has been undertaken of the distances which can be travelled at average walking and cycling speeds within 10, 20 and 30 minutes in Figures 7.14 to 7.17. The average speeds applied are 800m every 10 minutes for walking and 2km every 10 minutes for cycling.

Figure 7.14 – Walking Isochrone from Darwen town centre



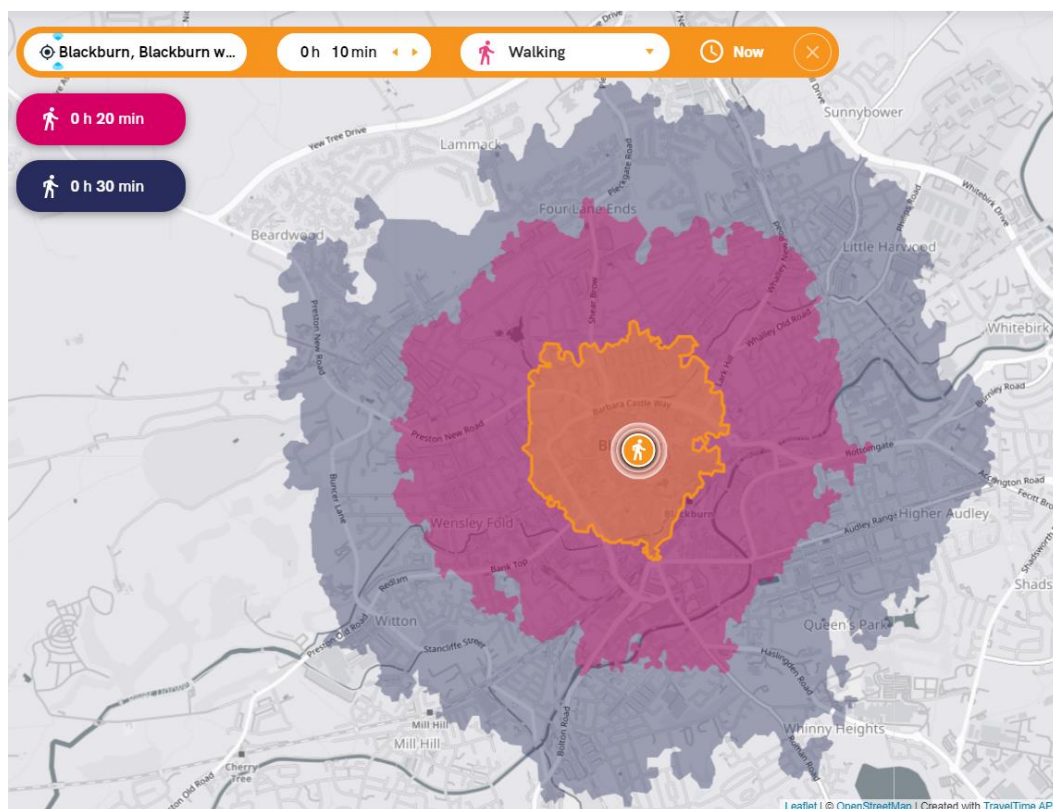
- 7.2.32 Figure 7.14 shows that most of the proposed residential areas of Darwen are within walking distance of the town centre, with Huddlesden and the southern extents of Darwen outside of a half hour walk.

Figure 7.15 – Cycling Isochrone from Darwen Town Centre



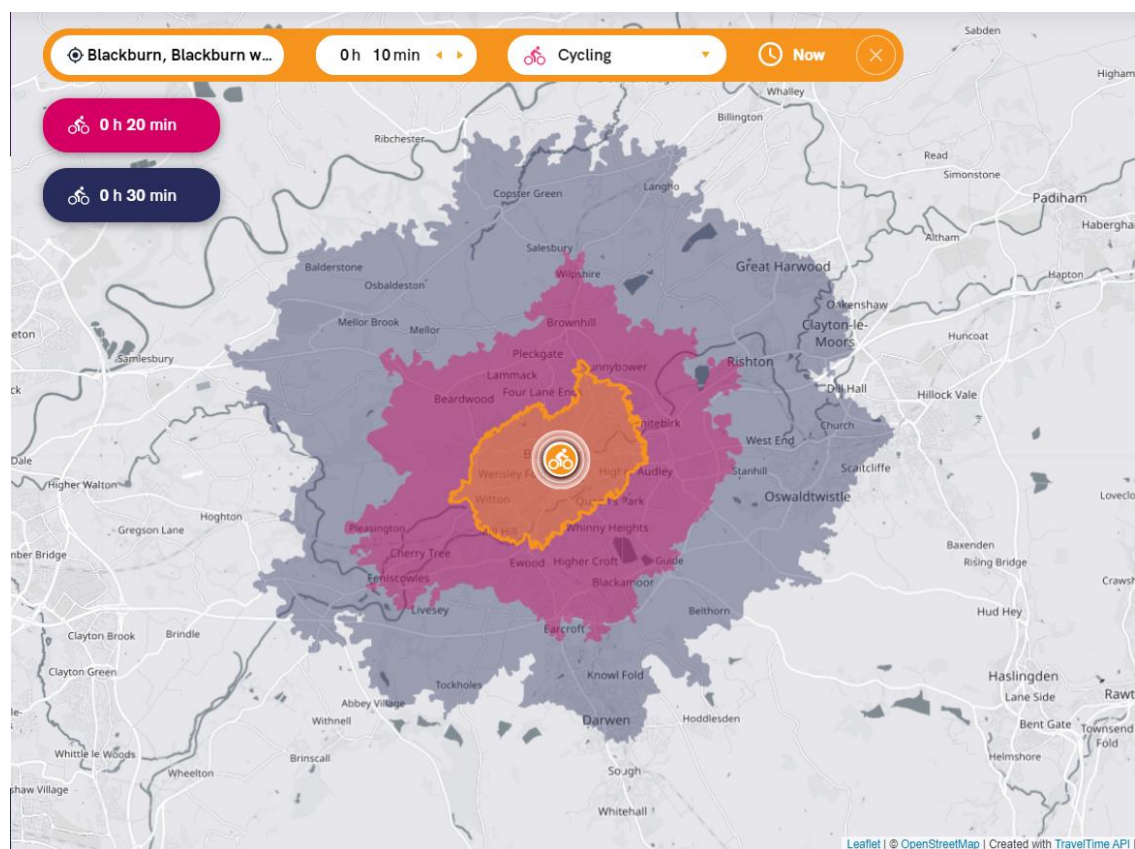
7.2.33 Figure 7.15 shows that the built-up area of Darwen lies within a 10 minute cycle of the town centre with most of the built up area of Blackburn and all of the villages within the borough being reachable within a half hour. The rural areas and quiet country lanes to the East and West of Darwen are accessible within 10 to 20 minutes of Darwen town centre providing opportunities for leisure cycling.

Figure 7.16 – Walking Isochrone from Blackburn town centre



7.2.34 Figure 7.16 shows that most of the proposed residential areas of Blackburn are within a half hour walk of the town centre although some outlying suburban areas fall outside of this with journeys between these areas and Blackburn town centre likely to be made by non-active modes.

Figure 7.17 – Cycling Isochrone from Blackburn Town Centre



7.2.35 Figure 7.17 shows that the built-up area of Blackburn lies within a 20 minute cycle of the town centre with other nearby towns such as Great Harwood, Rishton, Oswaldtwistle and Darwen being reachable within a half hour. Rural areas of the Ribble Valley to the north are accessible within 30 minutes of Blackburn town centre providing opportunities for longer distance leisure cycling.

Public Health England – Physical Activity¹⁰

7.2.36 The Public Health England Physical Activity Survey data is presented in Table 7.6. This shows that the North West region performs worse than the England average against all indicators suggesting low levels of walking and cycling as compared to most other parts of England.

Table 7.6 – Public Health England, Physical Activity Survey

Indicator	Period	England	East Midlands region	East of England region	London region	North East region	North West region	South East region	South West region	West Midlands region	Yorkshire and the Humber region
Percentage of physically active adults	2019/20	66.40	65.9	67.3	65.2	64.7	63.9	69.5	70.9	63.1	65.4
Percentage of physically inactive adults	2019/20	22.90	23.4	22.0	23.8	24.6	25.2	20.1	19.1	25.3	24.2
Percentage of physically active children and young people	2019/20	44.90	43.9	45.5	41.9	46.2	43.3	47.5	49.4	44.4	43.2
Percentage of adults walking for travel at least three days per week <i>New data</i>	2019/20	15.10	13.2	13.8	22.1	13.2	13.4	14.9	14.8	12.6	14.2
Percentage of adults cycling for travel at least three days per week <i>New data</i>	2019/20	2.30	2.0	2.4	4.1	1.8	1.8	2.4	2.1	1.4	1.8
Percentage physically active for at least one hour per day seven days a week at age 15	2014/15	13.90	15.3	13.3	11.8	14.2	13.2	14.8	16.0	13.8	13.7
Percentage with a mean daily sedentary time in the last week over 7 hours per day at age 15	2014/15	70.10	70.6	71.0	69.8	75.2	71.2	67.8	66.9	70.9	70.6
Utilisation of outdoor space for exercise/health reasons	Mar 2015 - Feb 2016	17.90	18.5	18.7	18.0	17.3	17.5	18.2	17.4	17.7	17.5

7.2.37 Further data from Sport England’s 2020-21 Active Lives survey¹¹ indicates that there is a higher proportion of people who are inactive (less than 30 minutes activity a week) in Blackburn with Darwen (35.8%) as compared to Lancashire (28.8%) or England (27.5%) and significantly lower proportions of people who are active for more than 150 minutes a week in Blackburn with Darwen (48.7%) as compared to Lancashire (59.9%) and England (60.9%). Both sets of figures indicate scope for improvement as regards the levels of physical activity in the borough.

Bikeability Cycle Training

7.2.38 Within Blackburn with Darwen, Bikeability cycle training for children is undertaken at both primary and secondary schools with approximately 40 schools currently engaged. School Bikeability training is currently contracted to a company called Sporting NRG who engaged with 2,440 students across Levels 1, 2 and 3 in 2018/2019.

7.2.39 Blackburn with Darwen Borough Council do deliver Bikeability training at Witton Park Cycle Centre. The following Bikeability/Learn to ride programmes are currently available:

- Pedal around the Park - A progression from Track sessions; this guided ride follows the mile loop around the park and is designed for those who feel comfortable cycling but not quite ready to venture outside the park. All equipment is provided and the cost to attend is £2 for 45 minutes
- Cycle back to fitness - A session for cyclists keen to get back on a bike again and ease their way into building up their fitness and cycling confidence in a controlled hazard free area away from general park users and traffic. Trikes also available. The cost to attend is £2 for 45 minutes.
- Biker Tots - Progression from Biker Tots for children aged 2 - 4 years with a selection of balance bikes. Children must be supervised on a maximum ratio of 2 children to 1 adult. Parents or carers must stay and supervise their children. This outdoor session helps children get used to

¹⁰ [Physical Activity - Data - PHE](#)

¹¹ [Active Lives data tables | Sport England](#)

balancing on the bikes. Bikes and helmets are provided. The cost to the public is 50p for 45 minutes.

- 7.2.40 Blackburn with Darwen Borough Council is also providing adult cycle training focusing on Workplaces and Colleges with a target of 250 participants and Family Cycle Training focusing on schools and communities with a target of 300 children and their parents/supervisors. The purpose of this training is to further support families to cycle together, particularly once a child has undertaken a Bikeability course at school. Blackburn with Darwen Borough Council has delivered various forms of cycle training for a number of years with DfT revenue funding support.

8 Existing Transport Networks: Road, Rail and Public Transport

8.1 Synergy with Other Transport Modes

8.1.1 The focus of the Blackburn with Darwen LCWIP is first and foremost on providing the necessary infrastructure to create a high-quality active travel environment. Such a network should engender modal shift, enabling journeys that were previously unattractive by walking and cycling. It is therefore important to understand and appreciate the current transport situation, considering the synergies between the LCWIP and the various issues associated with other modes of travel.

8.1.2 Information from these documents, as well as that obtained through various other policy documents, studies, and stakeholder engagement, have been used to consider how the LCWIP could contribute to improving local transport networks.

Highways

8.1.3 The Strategic Road Network within the borough extends to 8.0km in total and comprises the M65, including junctions 4 and 5. In addition, junctions 3 and 6 of the M65 are located to the west and north-east of the borough in Chorley and Hyndburn respectively and connect to key local roads in the borough.

8.1.4 The M65 bisects the borough west to east between the towns of Blackburn and Darwen and is a major artery within Central and Pennine Lancashire, providing links between Preston in the west and the East Lancashire towns of Accrington, Burnley, Nelson and Colne. The role of the M65 is a key inter-urban route whose principal function is to link the main population and employment centres of Preston, Blackburn, Burnley and Colne with routes of strategic national and regional importance as well as destinations in other regions.

8.1.5 The Local Road Network within the borough extends to 554.4km³, comprising 55.8km of 'A' Roads and 490.6km of Minor Roads.

8.1.6 Major roads in and around Blackburn include the A666, A677, A6077 and A6119. The A666 runs from the A59 near the village of Langho, approximately 6km to the north-west of Blackburn. It passes through the town centre and continues south through the towns of Darwen and Bolton then south-west to the town of Pendlebury, near Manchester, where the road joins the A6 at Irlams o' th' Height.

8.1.7 The A677 runs from the east part of Blackburn, about 2.5 km from the centre. It passes through the centre of the town and continues to the western outskirts. It then heads northwest to the village of Mellor Brook before joining the A59 towards the city of Preston. The A6077 Haslingden Road corridor forms an important part of the highway network within the borough, providing one of the main routes linking Blackburn town centre with the M65 motorway at junction 5. The A6119 is a dual carriageway linking the M65 at junction 6 to the A677 and onto the M6 and provides a bypass to the north of Blackburn.

Public Transport

8.1.8 As part of the recent Pennine Reach scheme, bus services were improved within the borough, including an upgrade of the Blackburn Town Centre bus station, which has significantly improved public transport interchange infrastructure in the heart of Blackburn Town Centre through the delivery of a modern, covered, safe bus station facility including the latest technology.

8.1.9 In Blackburn there is good bus provision in the majority of the town via a number of radial routes from the town centre. Bus provision is more limited in the south east however it can be noted that this area

has a higher number of cycle routes than other areas of the town. In Darwen, the bus routes cover all residential and town centre locations, and Hoddlesden.

8.1.10 There are six railway stations located in the borough: Blackburn, Mill Hill, Cherry Tree, Pleasington, Darwen and Entwistle. The Ribble Valley line runs through the borough in a north-south orientation, from Manchester to Clitheroe. From Blackburn, the East Lancashire line runs west towards Preston.

8.1.11 In Blackburn, the stations are located in the town centre and towards the west of the town where residential density is higher. Darwen has only one railway station, located in the town centre. As with cycling and walking, bus and rail usage are also actively promoted through the CONNECT campaign.

Traffic Flows

8.1.12 The type of infrastructure recommended in Local Transport Note 1/20 guidance is directly impacted by the levels of traffic on a route and also the speed of the traffic. Routes which have Average Annual Daily Traffic flows (AADT) of over 6,000 vehicles will require a much higher degree of segregation to achieve modal shift. A higher degree of segregation is also required to induce mode change along routes which have a speed limit of 30 or above.

8.1.13 The Department for Transport’s road traffic statistics have been used to obtain data on vehicle numbers along key arterial routes. Table 8.1 below shows Blackburn with Darwen’s top ten busiest roads in 2019 (pre Covid-19 pandemic) excluding the strategic road network (M65). As could reasonably be expected the locations are all on key arterial routes or on the Blackburn town centre orbital route as indicated by (OR). All locations are within the urban area of Blackburn and are subject to a 30mph speed limit with the exception of the A678 Whitebirk Roundabout Link which has a 40mph speed limit.

Table 8.1 – Local Roads with the Highest Annual Average Daily Traffic (AADT)

Road Name	Start Junction	End Junction	AADT
A678 Whitebirk Roundabout Link	A6119	LA Boundary	27056
A6078 Barbara Castle Way (OR)	A677	A666	24605
A6119 Whitebirk Drive	Philips Rd	LA Boundary	23868
A666 Earcroft Way	A666	M65	21146
A6077 Haslingden Road	M65	Shadsworth Road	19786
A6078 Barbara Castle Way (OR)	A666	Quarry Street	19413
A6078 Eanam (OR)	Quarry Street	A678	19260
A6078 Montague Street (OR)	A674	A677	18615
A666 Bolton Road	Highfield Road	Wainwright Bridge	18213
A6078 Wainwright Bridge (OR)	A6078	A666	17588

8.1.14 Current guidance as set out in Local Transport Note 1/20 can be seen in Figure 8.1 below. This indicates that only roads with an AADT below circa 2,500 and an average speed below 20mph are likely to offer a high-quality environment for cycling in the carriageway with other vehicles (although it should be noted that fully segregated infrastructure would still provide a higher level of service in most situations).

8.1.15 Within Blackburn with Darwen, most of the major roads will have AADTs far in excess of these values, indicating that potential cycle users are likely to either require segregated infrastructure or an alternative route of a similarly direct nature in order to realise the potential for cycling in the borough. The routes within Blackburn town centre and around the orbital route are likely to pose particular challenges, with Blackburn town centre being one of the most important destinations in the district and the National Cycle Network (Route 6) passing through.

Figure 8.1 – Appropriate Protection from Motor Traffic on Highways

Speed Limit ¹	Motor Traffic Flow (pcu/24 hour) ²	Protected Space for Cycling			Cycle Lane (mandatory/ advisory)	Mixed Traffic
		Fully Kerbed Cycle Track	Stepped Cycle Track	Light Segregation		
20 mph ³	0	Green	Green	Green	Green	Green
	2000	Green	Green	Green	Green	Green
	4000	Green	Green	Green	Yellow	Yellow
	6000+	Green	Green	Green	Yellow	Pink
30 mph	0	Green	Green	Green	Yellow	Yellow
	2000	Green	Green	Green	Yellow	Yellow
	4000	Green	Green	Green	Yellow	Pink
	6000+	Green	Green	Green	Yellow	Pink
40 mph	Any	Green	Yellow	Yellow	Pink	Pink
50+ mph	Any	Green	Pink	Pink	Pink	Pink

- Provision suitable for most people
- Provision not suitable for all people and will exclude some potential users and/or have safety concerns
- Provision suitable for few people and will exclude most potential users and/or have safety concerns

- Notes:
1. If the 85th percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
 2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow
 3. In rural areas achieving speeds of 20mph may be difficult, and so shared routes with speeds of up to 30mph will be generally acceptable with motor vehicle flows of up to 1,000 pcu per day

8.1.16 While traffic flows are likely to be significantly lower within the rural areas of the borough, the speeds associated with rural roads are equally un conducive to cycling for everyday purposes. The higher AADTs on major roads such as the A666 between Blackburn and Darwen also create severance between areas, limiting the propensity to travel by active modes.

8.1.17 Many local residential streets offer conditions that are conducive to mixed-use cycling, requiring minimal interventions. However, there are significant areas of residential areas which are characterised by terraced properties with high demand for on-street parking. Some roads within these terraced residential areas have been made one-way to accommodate parking without provision for cycling.

Parking

8.1.18 Blackburn and Darwen town centres also have a plentiful supply of car parking, which is considered likely to contribute towards the high levels of vehicle usage.

9 Existing Origins and Destinations

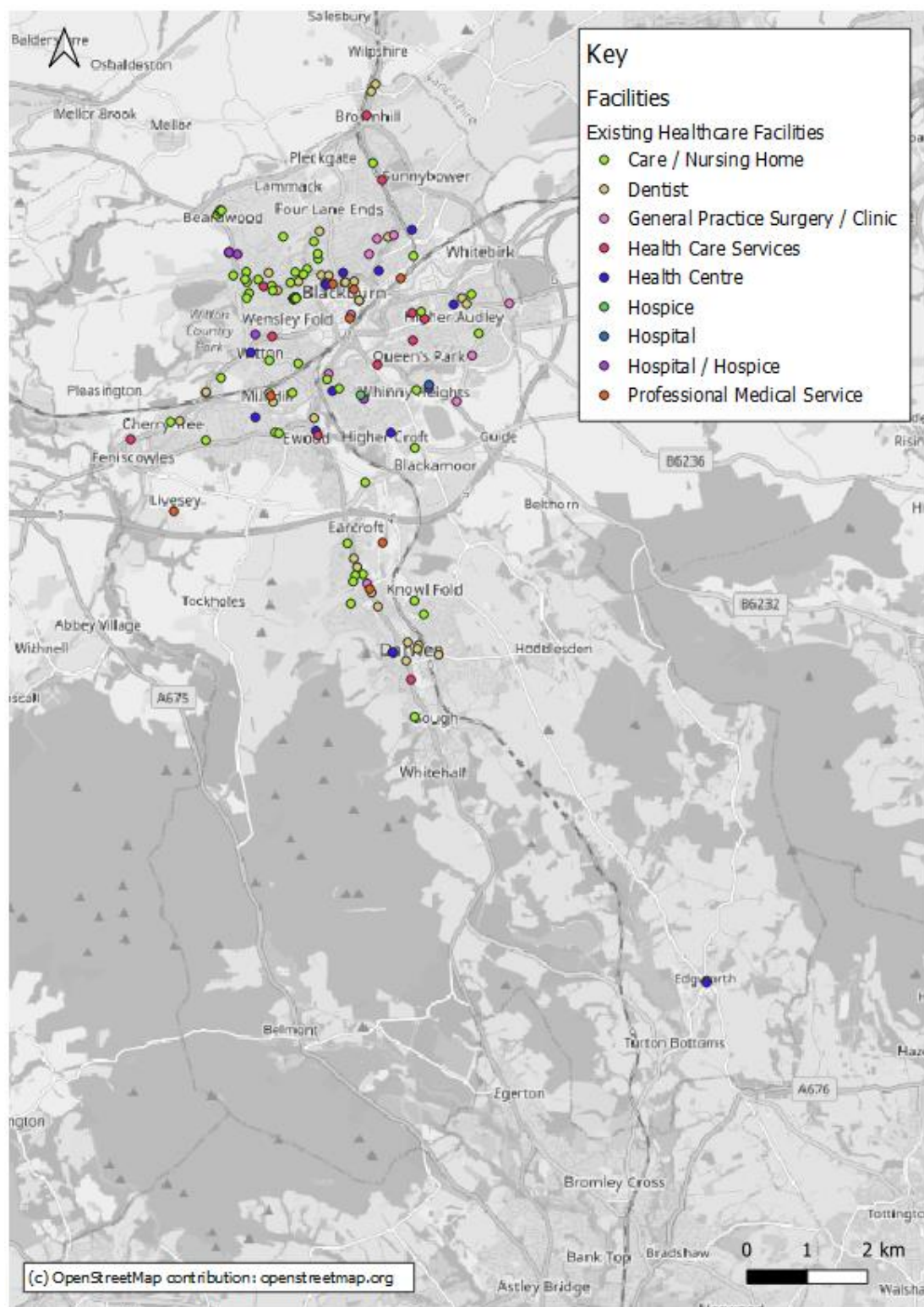
9.1 Origins

- 9.1.1 The development of an LCWIP relies on a detailed understanding of the key origins and destinations (ODs) in each study area, identifying where individuals currently move to and from. A desktop study of key origins and destinations was therefore carried out to identify the existing locations within the LCWIP study area that are most likely to benefit from additional pedestrian and cycle access and connectivity.
- 9.1.2 To identify significant residential (origin) areas, proxy nodes were plotted using a GIS, based on 2011 Census data available from the Office for National Statistics (ONS). Population weighted centroids for Census Output Areas (OA) were mapped, showing where the population is greatest within the OA boundaries, and thereby indicating the urban areas with the greatest potential for trips. These nodes were reviewed, using an Ordnance Survey (OS) basemap as a reference, and manually adjusted where necessary to ensure that they were located over urban areas to represent realistic trip origins. Additional points were added where required to ensure all urban residential areas were adequately represented.
- 9.1.3 Rail stations, bus stations, and access points to the Leeds & Liverpool Canal were also used as both origin and destination points, providing opportunities for integration between modes and access to and from locations further afield.

9.2 Destinations

- 9.2.1 Key destinations were identified across the LCWIP study area in order to determine where people are travelling to on a regular basis. These sites were identified through analysis of available spatial data, desktop and site surveys, and stakeholder engagement. Key destinations include the following location types:
- Employment Sites;
 - Parks and Open Spaces;
 - Sport and Leisure Facilities;
 - Healthcare Facilities;
 - Grocery / Shopping Facilities;
 - Tourist Attractions and Points of Interest; and
 - Schools and Further Education Establishments.
- 9.2.2 A review has been undertaken of the locations of existing facilities and services in the borough, with Figures 9.1 to Figure 9.3 showing the locations of existing healthcare facilities, educational establishments, and food & retail stores respectively.
- 9.2.3 Consideration of Figure 9.1 to 9.3 together with Figure 10.1 and Figure 10.2 in the following section enables the identification of key locations of both existing and future origin and destination points across the LCWIP study area.

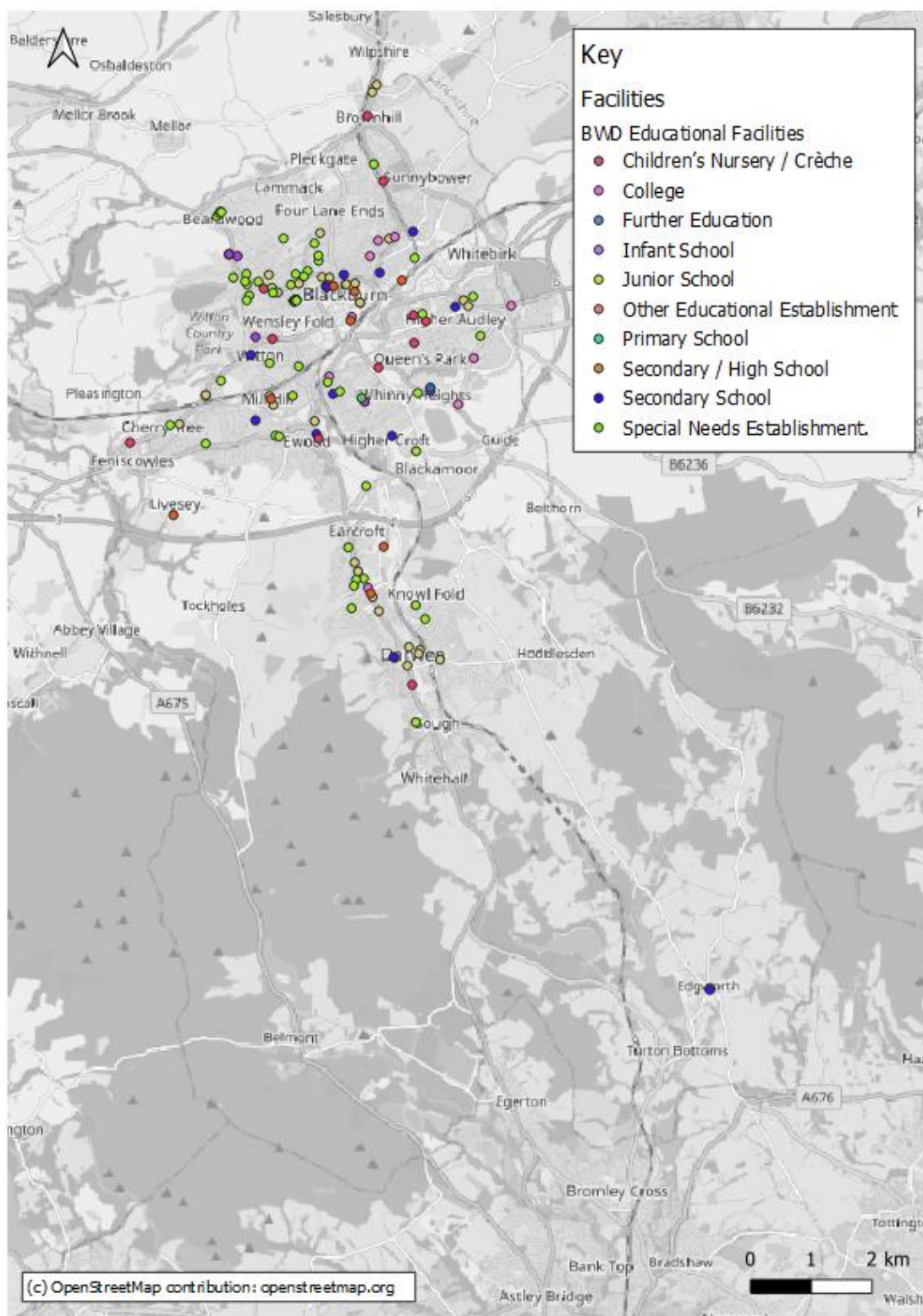
Figure 9.1 – Existing Healthcare Facilities



9.2.4 Overall, the built-up areas of the borough are well served by GPs, pharmacies and sports & fitness centres. There is one main hospital, located to the southeast of Blackburn town centre adjacent to the A6077 Haslingden Road. Royal Blackburn Hospital also has associated service centres located around the town to support the main hospital function.

9.2.5 Figure 9.2 shows the locations of educational establishments within the borough.

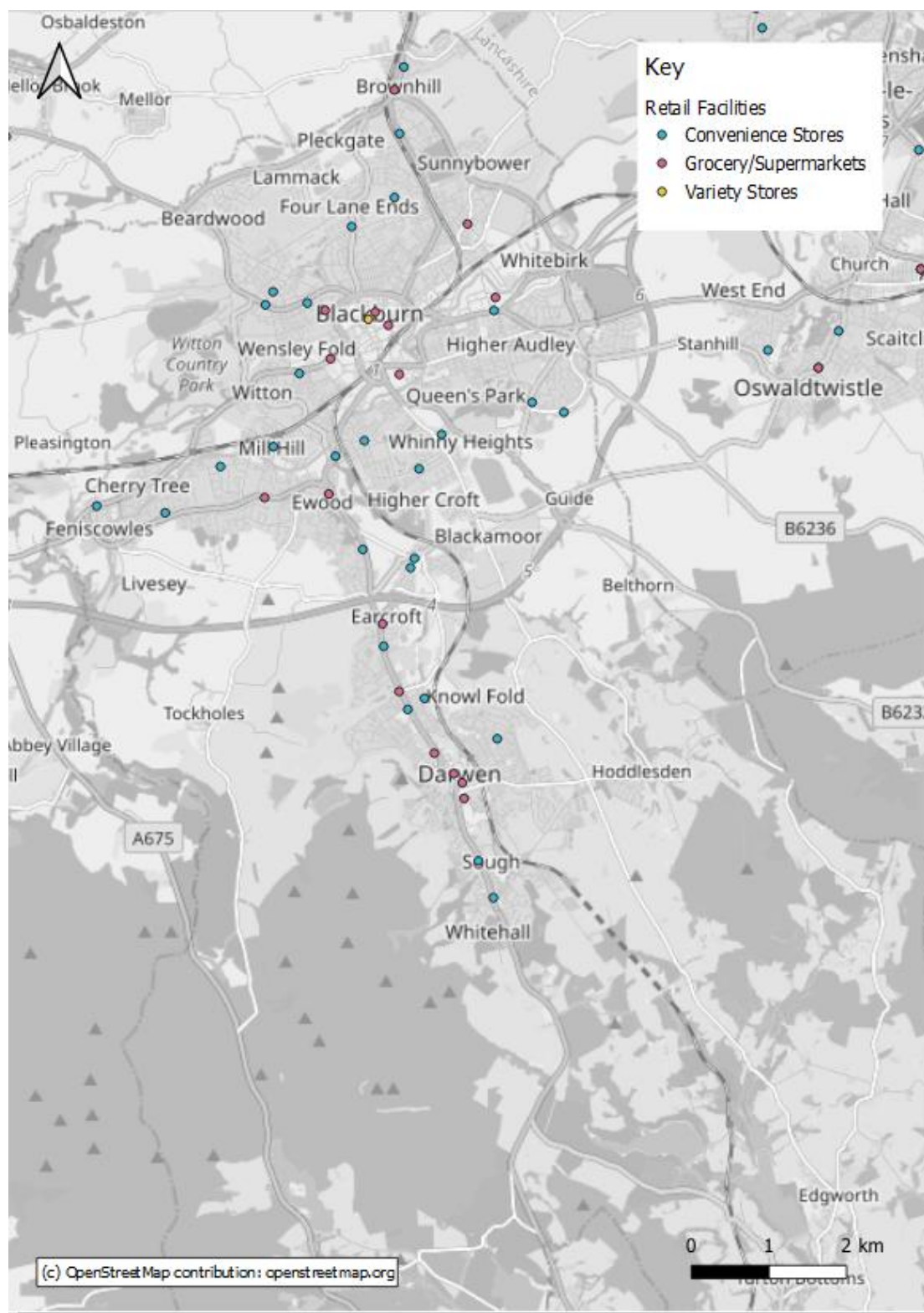
Figure 9.2 – Existing Educational Establishments



9.2.6 There is relatively even distribution of both primary and secondary schools throughout the borough, however secondary school provision is less prevalent in the north and east of Blackburn and around Lower Darwen.

9.2.7 Figure 9.3 shows the locations of existing food and retail stores within the borough.

Figure 9.3 – Existing Food and Retail Stores



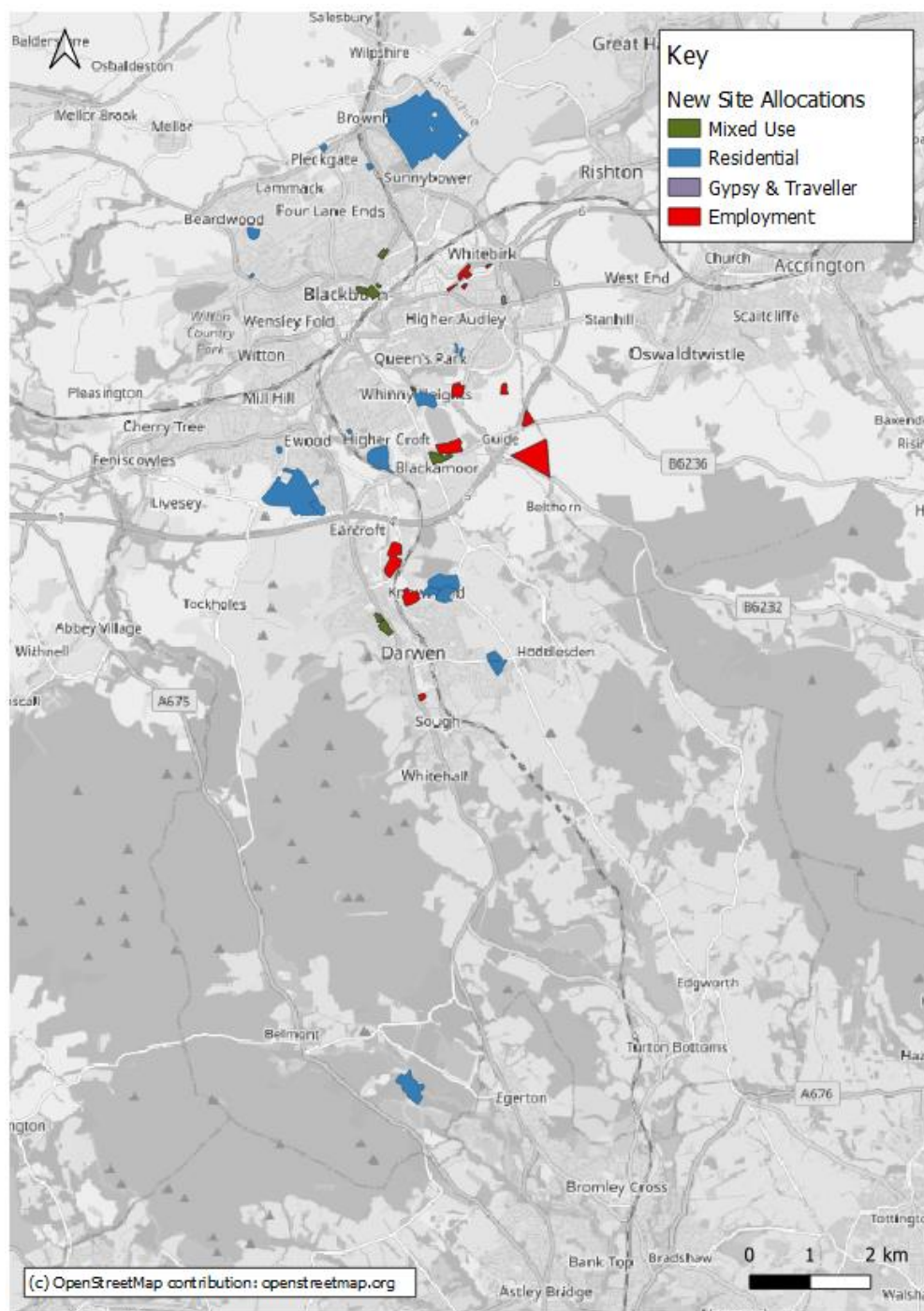
9.2.8 Overall, this shows that the distribution of shops in BwD is broadly even throughout the borough. The food stores are typically located in areas of high residential density, with the area to the west of Blackburn town centre and the A666 through Darwen showing higher concentrations of Grocery / Supermarket stores. The majority of shops within the borough are smaller convenience stores which aim to serve local communities.

10 Future Situation

10.1 Planned and Aspirational Growth

- 10.1.1 Planned and aspirational growth is an important consideration when implementing new cycling and walking infrastructure. New developments may become significant origins and destinations due to size, capacity or influence and therefore links to the cycle and walking networks would be necessary. This section of the report summarises the growth aspirations of the Blackburn with Darwen Local Plan period to 2037, including specific site allocations. Consideration is also given toward recent and committed development schemes in the LCWIP study areas.
- 10.1.2 BwDBC has prepared a draft set of proposed site allocation options for the purposes of preparing its Regulation 19 Local Plan. These comprise carry-over of 17 existing allocations along with 16 potential new allocations in the borough, comprising a mix of residential, employment, mixed-use and gypsy & traveller sites. The spatial distribution of the sites can be seen in Figure 10.1. The review of key origins and destinations presented in the following paragraphs has been undertaken in the context of these growth proposals.
- 10.1.3 It is important to note that not all these sites may end up being allocated for development in the new Local Plan as it is still subject to Examination in Public. Some sites (or parts of sites) may be more appropriate for development beyond the new Local Plan period. Sites shown represent the preferred options for consideration at the time of preparing this LCWIP baseline report. The findings of the transport evidence and other evidence base reports will inform any proposed modifications prior to Submission of the plan, or the Examination in Public, as well as the Infrastructure Delivery Plan that accompanies the Local Plan.

Figure 10.1 – Spatial Distribution of Proposed Site Allocations



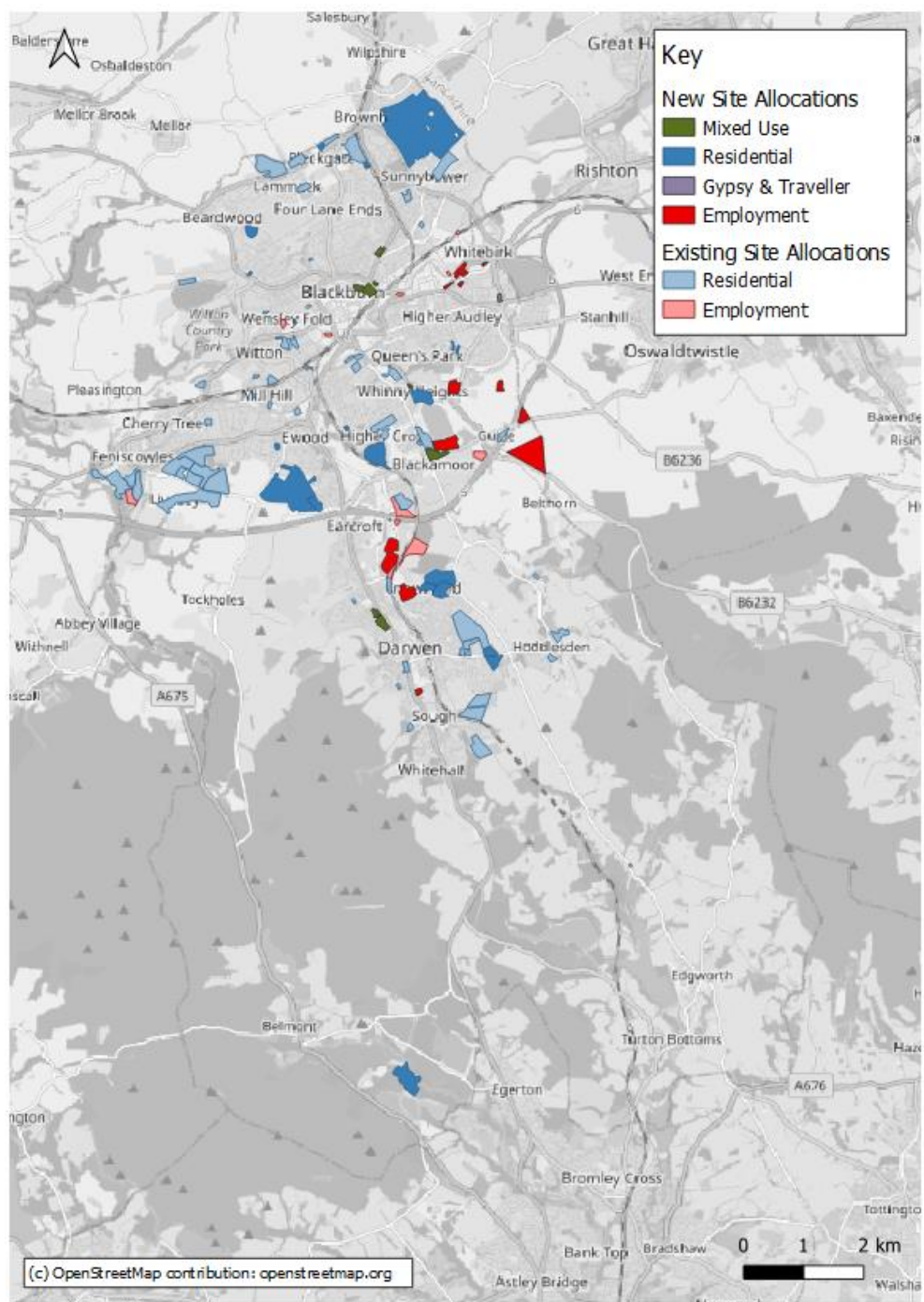
- 10.1.4 Of the newly proposed sites, the larger employment sites are situated close to M5 Junctions 4 & 5 allowing nearby access to the SRN. The smaller employment sites are located closer to Blackburn town centre, positioned off a main arterial route in Blackburn, the A678 Carl Fogarty Way connecting the M5 Junction 6 to Blackburn town centre.
- 10.1.5 There is a single significant residential site to the North of Blackburn, located off the A6119. The position of the proposed site allows nearby access to the SRN via M5 Junction 6, and towards Preston via the A677. The other newly proposed residential sites are smaller and distributed across both Blackburn and Darwen.
- 10.1.6 The proposed new mixed-use developments are focused on the town centre, where two sites, MU210 and MU211, border the A6078 Barbara Castle Way.

- 10.1.7 In addition to the new proposed site allocations, 26 existing sites have been carried over into the site allocations for the new Local Plan. Within these 26 is S149 located off Carl Fogarty Way. The site is located to the west of M65 Junction 6 near to Glenfield business park and is a proposed employment site. Another existing allocation carried forward is S042 Bank Hey, a large residential site located to the east of A666 Bolton Road.

10.2 Development Trajectory to 2037

- 10.2.1 In addition to the new and existing site allocations, there are a number of sites in the borough where planning permission has been granted, or which are under construction. In conjunction with the new and existing site allocations, these comprise the total development trajectory for the borough to 2037, as shown spatially in Figure 10.2 below.

Figure 10.2 – Total Development Trajectory to 2037



10.3 Transport Schemes and Initiatives

Local Plan Transport Study

- 10.3.1 Blackburn with Darwen Borough Council (BwDBC) commissioned WSP to undertake a Transport Study to evaluate the future transport implications of development proposals set out in the emerging Local Plan. The purpose of the study was to directly inform the preparation of the Local Plan and associated infrastructure planning.
- 10.3.2 A key requirement of the evidence base to support the Local Plan is to show that allocated sites are deliverable, this includes showing that the necessary physical infrastructure is in place, or can be

delivered, and will not constrain development coming forward. The efficient operation of the local and strategic highway networks is critical in the successful delivery of the growth strategy

- 10.3.3 Specific sustainable transport mitigation measures have been identified, to encourage a shift to more sustainable transport usage, to mitigate the traffic impact of the Local Plan site allocations. This includes suggested measures to improve facilities for walking, cycling and public transport, along with other measures relating to Travel Plans and demand management.
- 10.3.4 For walking and cycling, an overarching strategy has been identified, to support a continued and increased uptake in walking and cycling trips, ensuring walking and cycling is inclusive for all. Site specific measures have also been identified for the five sites with the greatest vehicle trip generation and which therefore present a significant opportunity for modal shift to walking and cycling. Additional measures have been identified to better connect the site allocations to the existing walking and cycling provision in the borough.
- 10.3.5 Through a combination of highway mitigation measures and sustainable transport mitigation measures, this study demonstrates that the impacts of the proposed Local Plan development can be mitigated to an acceptable degree, and that the Local Plan is therefore deliverable in a sustainable manner in transport terms, in accordance with NPPF.

Levelling Up Fund

- 10.3.6 Blackburn with Darwen Borough Council are currently in the process of developing proposals for inclusion in a future Levelling UP Fund Bid. Separate bids are likely to be submitted to cover regeneration and transport with the transport bid seeking to provide the transport infrastructure to support the delivery of the Strategic Employment Site at M65 Junction 5 and the regeneration project covering a number of regeneration projects aimed at Blackburn town centre.
- 10.3.7 Delivery of the levelling up projects means:
- boosting productivity, pay, jobs and living standards by growing the private sector, especially in those places where they are lagging
 - spreading opportunities and improving public services, especially in those places where they are weakest
 - restoring a sense of community, local pride and belonging, especially in those places where they have been lost
 - empowering local leaders and communities, especially in those places lacking local agency

Darwen Town Deal – Destination Darwen

- 10.3.8 The Darwen Town Deal aims to kick-start the transformation of Darwen and the surrounding areas. The maximum bid of £25 million of Government funding has been secured for projects that will improve the lives of the towns residents and visitors.
- 10.3.9 The town deal funding will allow the Darwen Town Deal Board to progress with a range of projects across transport, regeneration and tourism which underpin the delivery of the Darwen Investment Plan, worth £116 million, aiming to generate and safeguard over 600 jobs and create and assist over 200 businesses.
- 10.3.10 Progress is already being made with early Town Deal investment in Darwen Tower, J4 Skatepark and AFC Darwen. Read more about these projects and our latest updates in the 'News' section.

Bus Service Improvement Plan (BSIP)

- 10.3.11 On 15th March 2021 the Government published the National Bus Strategy for England ‘Bus Back Better’¹². The Strategy sets out an ambitious vision to dramatically improve bus services across England (outside London) to first reverse the long-term decline in the number of journeys made by bus and second encourage passengers back to the bus, post the Covid-19 pandemic. It is intended that the Strategy will deliver cheaper, more frequent and more reliable bus services for passengers.
- 10.3.12 Blackburn with Darwen Borough Council are working collaboratively with Lancashire County Council to prepare a joint Bus Service Improvement Plan (BSIP) although each will have its own Enhanced Partnership with local operators. On June 25th 2021, Blackburn with Darwen Borough Council published their notice on Intent and gave approval to proceed with the development of an Enhanced Partnership.¹³ The joint BSIP will be published on 29th October 2021 and each authority’s Enhanced Partnership will enter force on 1st April 2022.
- 10.3.13 The joint BSIP recognises the close geographical ties between Lancashire and Blackburn with Darwen and hence the synergies for bus operations and the design and output of the bus service. The BSIP is designed to deliver a reformed network, improve public confidence and address misconceptions, to encourage passengers back.

BSIP Proposals

- 10.3.14 The BSIP proposals for Blackburn with Darwen are summarised below and provide a comprehensive suite of measures which support the policies of both our existing and emerging Local Plan and Local Transport Plans. These include:
- More Frequent Buses
 - Faster Buses
 - Improved Facilities
 - Better Coverage
 - Improved Integration
 - Lower and Simpler Fares
 - Better Buses
 - Marketing & Promotion

Pennine Lancashire Linear Park

- 10.3.15 A joint partnership between Lancashire County Council, Canal & River Trust, The Super Slow Way, and the councils of Blackburn with Darwen, Hyndburn, Burnley, and Pendle, is looking to create the ‘Pennine Lancashire Linear Park’.
- 10.3.16 The Pennine Lancashire Linear Park is a concept running along the Leeds and Liverpool Canal through Blackburn, Hyndburn, Burnley, and Pendle to boost the county’s economy and become more sustainable. The hopes are to turn the 19th century travel route into new opportunities for people to live, eat, drink and be environmentally friendly.
- 10.3.17 This would include spaces for live events and festivals, water sports, new housing, indoor gardens, and creating eco-friendly hydro-electric power. Four potential eco-projects have been identified so far including:

¹² [Bus back better - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/bus-back-better)

¹³ <https://bwdconnect.org.uk/travel-choices/bus/>

Blackburn with Darwen Local Cycling and Walking Infrastructure Plan (LCWIP)
Baseline Data Report (Final – March 2022)

- Towpath improvements from Eanam Wharf at Blackburn to Barrowford Lock at Pendle, at a cost of £5.3m to £11.5m.
- A £500,000 investment for enhanced biodiversity through new trees, hedgerows and planting to create deeper wildlife zones across the waterways and enhance Lancashire's sustainability.
- Improving cycling and pedestrian routes, with £700,000 needed for 200 e-bikes at 20 hubs across town and local centres; £1m for 20 new canal access points; and up to £250,000 per new footbridge.
- Increase water traffic and infrastructure for boats for the movement of development materials and waste collection, with a focus on electric boats to reduce Carbon Dioxide emissions.