

County Durham Plan Infrastructure Delivery Plan including minor modifications

2019



Altogether better



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Executive Summary

The County Durham Infrastructure Delivery Plan (IDP) describes County Durham's infrastructure requirements to support the delivery of the County Durham Plan (CDP) until 2035. The IDP has been developed in partnership with providers to identify infrastructure needs, delivery costs, and particularly seeks to identify barriers such as shortfalls in finance relating to infrastructure delivery. The IDP assists partners to make efficient decisions about their own investment programmes and has been developed in co-operation with adjoining local authorities to identify cross boundary issues.

The IDP highlights the key developments identified in the CDP, including where future housing and employment land will be located, and identifies those places where additional infrastructure or capacity is needed in the future.

Some of the key infrastructure requirements include new sustainable methods of transport, highways improvements, connectivity and utilities coverage across the County, along with a detailed assessment of where and when water sewerage networks will require investment. The IDP also considers the social infrastructure, which is crucial to improving our communities, such as medical care, emergency services, education facilities and community facilities. Green Infrastructure (GI) improvements also form part of the IDP process although separate GI Frameworks are being developed in partnership with key stakeholders. These GI Frameworks will contain more detail regarding specific projects and GI requirements.

Structure

The IDP has two main sections:

- The REPORT describes specific types of infrastructure in County Durham and highlights future investment issues and the impact of the County Durham Plan.
- The SCHEDULE⁽ⁱ⁾ is the financial breakdown of investment across monitoring areas. It states what infrastructure funding is (and is not) in place.

i The IDP schedule is located at the back of each monitoring area

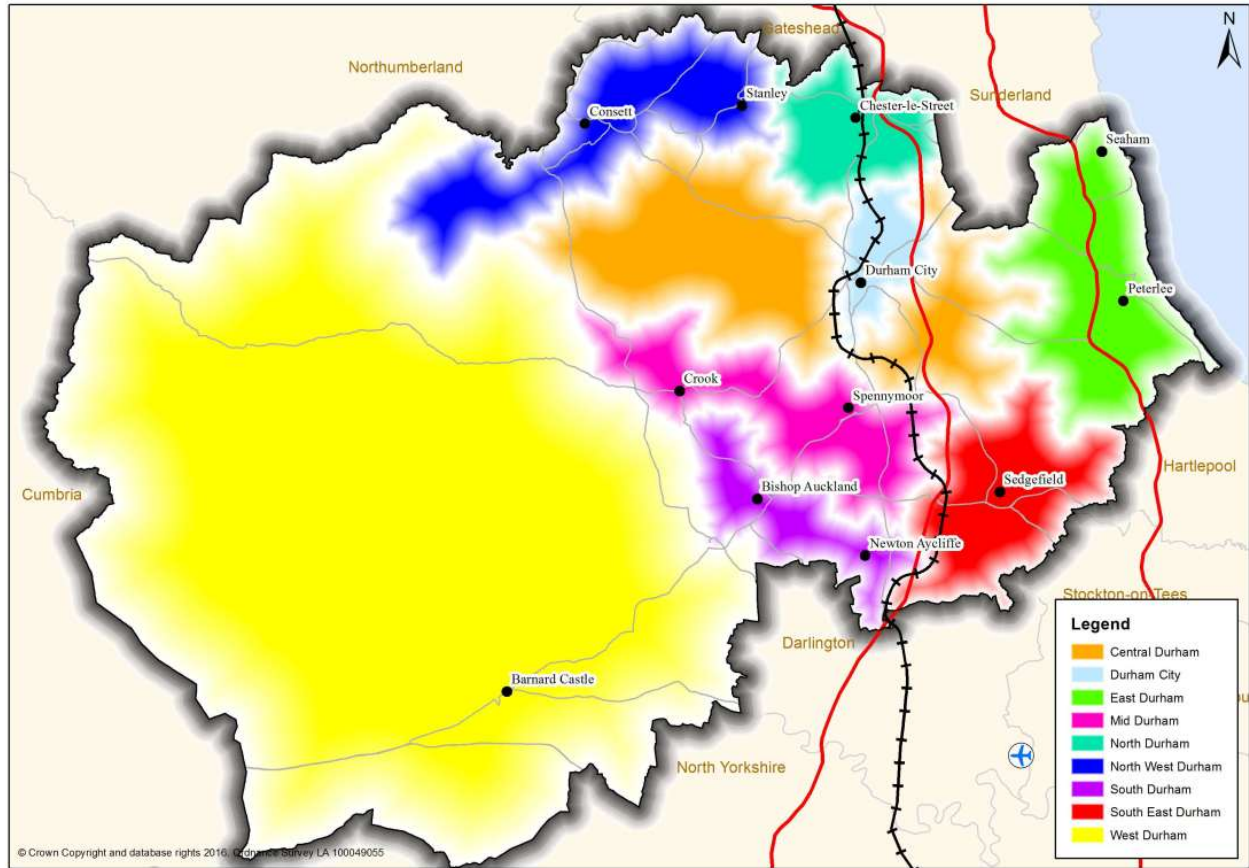
Estimated Indicated Funding Gap

Countywide	£4,750,000
North Durham Monitoring Area	£4,000,000
North West Durham Monitoring Area	£13,786,480
Durham City Monitoring Area	£148,265,340
Central Durham Monitoring Area	£1,102,725
Mid Durham Monitoring Area	£4,756,130
South Durham Monitoring Area	£19,540,000
South East Durham Monitoring Area	£0
East Durham Monitoring Area	£6,989,860
West Durham Monitoring Area	£0
Total	£183,650,535

The table above highlights the total funding gap for projects identified in the IDP. It must be noted that some of these projects are dependent upon developer contributions from sites which are proposed to be allocated for development in the County Durham Plan Pre-Submission Draft 2019.

In order to aid monitoring across an area the size of County Durham, with its many different communities, it is useful to break the county down into geographical areas which have similar characteristics in terms of their housing, economy and history. Therefore, 9 monitoring areas have been identified to assist in measuring the success of the Plan's policies and the IDP uses these areas to plan for infrastructure at the same geographic level. It should be noted that in reality, the boundaries between these areas are not distinct and in some cases issues overlap as they are not physically discrete. The general extent of the monitoring areas is shown on the map below.

Map 1 Monitoring Area Map



1 Introduction

What is the Infrastructure Delivery Plan?

1.1 The Sustainable Community Strategy, Regeneration Statement and CDP set frameworks for the delivery of improvements to the economic, social and environmental conditions of communities across the county. The CDP sets out specific land allocations for future employment, housing and transport. The IDP identifies how, when and where the council and its partners will provide infrastructure needed to achieve the CDPs vision for growth.

National Planning Policy Framework (NPPF), 2018

The NPPF published by the Ministry of Housing, Communities and Local Government states that local planning authorities must work with other providers to understand infrastructure needs and:

Strategic policies should set out an overall strategy for the pattern, scale and quality of development, and make sufficient provision for:

- a) housing (including affordable housing), employment, retail, leisure and other commercial development;
- b) infrastructure for transport, telecommunications, security, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat);
- c) community facilities (such as health, education and cultural infrastructure); and
- d) conservation and enhancement of the natural, built and historic environment, including landscapes and green infrastructure, and planning measures to address climate change mitigation and adaptation." (NPPF paragraph 20)

Effective and on-going joint working between strategic policy-making authorities and relevant bodies is integral to the production of a positively prepared and justified strategy. In particular, joint working should help to determine where additional infrastructure is necessary, and whether development needs that cannot be met wholly within a particular plan area could be met elsewhere. (NPPF paragraph 26)

Plans should set out the contributions expected from development. This should include setting out the levels and types of affordable housing provision required, along with other infrastructure (such as that needed for education, health, transport, flood and water management, green and digital infrastructure). Such policies should not undermine the deliverability of the plan. (NPPF paragraph 34)

1.2 The IDP supports a number of planning functions, it is an evidence base for the CDP that helps to meet statutory requirements, supports delivery and investment programmes, and indicates where private sector developers will be expected to contribute towards the provision or improvement of local and strategic infrastructure. Where funding cannot be found for infrastructure projects, shortfalls can be identified and used to inform negotiations on planning obligations that will address infrastructure needs, subject to Section 106 test. The IDP can also be used as a key evidence base when applying for funding from the Local Enterprise Partnership or from other bodies.

The Scope of the Infrastructure Delivery Plan

1.3 The following types of physical, social and green infrastructure (GI) are included in this plan:

Physical Infrastructure	<ul style="list-style-type: none"> • Transport - Sustainable transport, walking, cycling, bus, rail and highways • Utilities - Water management and energy • Communications
Social Infrastructure	<ul style="list-style-type: none"> • Medical care • Emergency services • Education provision
Green Infrastructure (GI)	<ul style="list-style-type: none"> • Open space • Playing pitches • Footpaths and public rights of way

Partnership Working

1.4 The IDP has a broad role, as it helps inform service planning and capital investment decisions by infrastructure providers that have not traditionally been included in plan-making decisions. It recognises that planning is 'spatial' and helps to deliver services that play an important role in the fabric of communities such as schools, GP surgeries and public transport. The IDP focuses on infrastructure that is needed but not yet provided, particularly trying to develop a picture of different needs in different parts of the county so that investment can be used more effectively to address gaps.

1.5 Partnership working underpins the development of the IDP. The 2019 version of the IDP forms part of the evidence base for the County Durham Plan Pre-Submission Draft 2019. There has been continuous engagement with delivery partners. The development of the IDP has involved close working with many organisations and it is hoped these relationships can continue to be built upon in the future in order to refine and improve infrastructure planning and continue to align infrastructure planning and investment decisions with the aims of spatial, community and corporate planning. We believe that the close working relationships formed with delivery partners has ensured our approach to spatial planning has gone well beyond the minimum requirements of Duty-to-Cooperate and can be viewed as a best practise approach to infrastructure planning.

1.6 The IDP is a 'living document' that is updated periodically, its performance will be monitored through annual monitoring reports. The current economic climate continues to be challenging for some IDP stakeholders so this approach gives an opportunity to review progress, identify funding priorities and gaps and make any necessary adjustments.

IDP Investment Schedules

1.7 The IDP Schedule is located at the end of every monitoring area section. The IDP Schedule is the financial breakdown of investment in each monitoring area of the county, the information is further divided by infrastructure type in line with the IDP main report. It is important to note that the IDP is a 'living' document, therefore, projects and financial information included could change as a result of a number of factors, including changes in circumstance and additional planning applications.

1.8 The capital investments listed within the IDP schedule can be reviewed to reflect more changing economic circumstances and/or changing priorities for the future. The information in the IDP schedule is organised into three levels of priority:

Table 1 - Colour Coding In IDP Schedule

	Committed capital programme/secure or ongoing developments
	Uncertain capital available, scheme part funded or uncertain timescales
	Infrastructure required with no funding/longer term aspirations

2 County Durham Plan

2.1 The CDP will guide future development and growth in County Durham up to 2035 and sets the framework for new development in the county; what is needed for our residents, businesses and visitors, and where it should be located. The CDP includes:

- Objectives for the county, focusing on the key issues to be addressed;
- A strategy for delivering the objectives in the plan setting out the quantity of development required and the spatial distribution for development;
- An overall spatial interpretation of how the county and its towns and villages should develop;
- A number of site allocations for employment, housing and minerals developments; and
- Policies to set the basis for determining planning applications.

Proposed Housing Distribution in County Durham

2.2 The CDP includes a target for the delivery of at least 24,852 new dwellings using a government standard methodology adjusted to take into account past actual performance over the last 5 years. Full details relating to the future housing needs of the county can be found in the 'Quantity of Development' chapter of the CDP.

2.3 The Pre-Submission Draft sets out a distribution of housing to meet housing need based upon a dispersed pattern of development located in key settlements across the county and principally focused in and around the towns where the greatest opportunities for employment, services and facilities, public transport and other infrastructure such as healthcare and education exist. All future allocations and existing commitments have been shared with infrastructure providers as part of the development of the IDP. This information has informed investment decisions from organisations responsible for infrastructure including, utilities, health and public services.

Table 2 County Durham Plan Housing Allocations by Monitoring Area

Settlement	Ref	Site	Yield
NORTH DURHAM MONITORING AREA			
Chester-le-Street	2/PE/11	Former Roseberry Comprehensive School	65
NORTH WEST DURHAM MONITORING AREA			
Consett	1/CO/89a	Former Blackfyne School	100
	1/CO/89d	East of Muirfield Close	30
	1/CO/42	South of Knitsley Lane	200
	1/CO/16	Rosedale Avenue	50
	1/CO/07 & 1/CO/08	Laurel Drive	290
DURHAM CITY MONITORING AREA			
Durham City	4/DU/157	Gilesgate School	60
	4/DU/118	North of Hawthorn House	20
	4/DU/161	South of Potterhouse Terrace	10
	4/DU/93	Former Skid Pan, Aykley Head	50
	4/DU/101	Sniperley Park	1,700
	4/DU/104	Sherburn Road	420
CENTRAL DURHAM MONITORING AREA			
Bearpark	4/BE/01	Cook Avenue	200
	4/BE/06	Cook Avenue North	50
MID DURHAM MONITORING AREA			
Crook	3/CR/02	High West Road	250
Spennymoor	7/SP/097	Former Tudhoe Grange Upper School, St Charles Road	85
	7/SP/333	Former Tudhoe Lower School, Durham Road	110
Willington	3/WI/03	Land to east of Ash Drive	200

SOUTH DURHAM MONITORING AREA			
Bishop Auckland	3/BA/21	Former Chamberlain Phipps	75
	3/BA/31a	Bracks Road	50
Newton Aycliffe	7/NA/313	Copelaw	600
	7/NA/005	Eldon Whins	80
	7/NA/326	Land at Woodham College	100
	7/NA/186	Cobblers Hall	50
SOUTH EAST DURHAM MONITORING AREA			
EAST DURHAM MONITORING AREA			
Peterlee	5/PE/01a 5/PE/01b	North Blunts	65
Seaham	5/SE/09	Seaham Colliery	335
	5/SE/21	Former Seaham School	95
WEST DURHAM MONITORING AREA			
Wolsingham	3/WO/20	Land off Leazes Lane	40

Employment Land

2.4 The Employment Land Review (ELR) has been carried out and provides the principal evidence to determine the amount of employment land that is needed across the County. Following consultation with commercial agents, land owners and developers, the ELR has identified six distinct commercial property markets:

- Durham City;
- A1 Corridor;
- A19 Corridor;
- Consett and surrounds;
- Bishop Auckland and surrounds; and
- The rest of County Durham including rural areas.

2.5 Countywide: The A1 Corridor stretches the length of the county from Chester-le-Street in the north to Newton Aycliffe in the south. It covers the area immediately accessible to the A1(M) and its attractiveness as an office and industrial location is linked to its proximity to the strategic road network. It includes many of the county's key employment locations such as Drum Industrial Estate near Chester-le-Street, Aycliffe Business Park in Newton Aycliffe and NETPark at Sedgefield.

2.6 North West Durham incorporates the towns of Consett and Stanley and their surrounding hinterlands. The area generally serves a more localised market, however significant employment areas are evident at Hownsgill, Consett Business Park and Number One in Consett and the estates at Greencroft and Tanfield Lea around Stanley and Annfield Plain.

2.7 North Durham includes the town of Chester-le-Street with the successful Drum Industrial Estate located immediately north of the town. This estate has seen high take-up over the past 15 years and benefits from its proximity to the A1(M) and the improved local road network.

2.8 Durham City is recognised as the county's pre-eminent office location, reflecting the city's potential to improve its attractiveness to a diverse range of occupiers in the future. The city centre and businesses parks within the town represent a distinct offer within the county. The Aykley Heads site forms a prominent, high profile, gateway site, within close proximity of Durham Railway Station. This provides high speed rail links through its connections on the East Coast Mainline. It also has excellent road links to the A1(M) and the A167. The recent investment by Atom Bank is evidence to the market attractiveness that exists at Aykley Heads and within Durham City.

2.9 Central Durham incorporates Meadowfield and Littleburn industrial estates, located to the west of Durham City. These cover a large area and house a variety of businesses and uses. Land exists at the popular Meadowfield Industrial Estate and Integra 61 at Bowburn for further business and industrial growth building on locational advantages.

2.10 Mid Durham includes the settlements of Spennymoor, Crook and Willington. Each of these towns have their own industrial areas which serve important markets. Spennymoor retains national firms such as Thorn, whilst the industrial estates at Crook and Willington meet more local needs.

2.11 South Durham is home to the large industrial areas around Newton Aycliffe. The recent arrival of Hitachi has brought multiple benefits to the area. Merchant Park is the base for Hitachi train manufacturing and assembly plant, whilst a further site Forrest Park, has also been identified as a site for further investment, building on the success of the Hitachi investment. This site has seen funding secured to improve utility infrastructure and there is also potential to consider a major rail freight interchange operation. Elsewhere within South Durham the towns of Bishop Auckland and Shildon will continue to meet local business needs within the area.

2.12 East Durham is located within the heart of the prominent A19 Corridor market area. This stretches the length of county’s east coast from the county’s border with Sunderland in the north, to the Hartlepool border in the south. Large industrial areas and business parks exist around the towns of Peterlee and Seaham which provide significant employment opportunities within this area of the County. To the south of Murton is the site of the proposed Jade Park which has recently been unveiled by the North East LEP as one of ten sites around the region that will be given Enterprise Zone status.

2.13 South East Durham is home to NETPark located to the north of Sedgefield. NETPark is one of the UK’s premier science, engineering and technology parks for the commercialisation of cutting edge research and development from major international organisations. Land exists to the north of the estate to extend the site further over the Plan period and fulfil phase 3 of the materplan.

2.14 West Durham is largely rural with Barnard Castle acting as the main service centre and the principle focus for employment. It contains a major industrial facility operated by Glaxo Smith Kline (GSK). Whilst GSK represent a major international occupier, Barnard Castle largely provides a modest level of industrial floorspace which is occupied by small local businesses. The rural service centres such as Wolsingham, Stanhope and Middleton in Teesdale also cater for local business needs.

2.15 The CDP has the following allocation for employment land across the County;

Table 3 County Durham Plan Employment Site Allocations

Central Durham Delivery Area	Site Area (hectares, net)
Integra61 (Land South of Bowburn Road)	44.25
Meadowfield Estate	26.67
Bowburn North Industrial Estate	0.42
Total	71.34
Durham City Delivery Area	Site Area (hectares, net)

Aykley Heads (B1 only)	3.0 ⁽ⁱⁱ⁾
Dragonville	1.18
Belmont Industrial Estate	5.48
Abbey Woods	0.66
Total	10.32
East Durham Delivery Area	
	Site Area (hectares, net)
Jade Park	18.85
Peterlee North West Industrial Estate	8.52
Peterlee South West Industrial Estate	8.2
Sea View Industrial Estate (Horden)	1.6
Total	37.17
Mid Durham Delivery Area	
	Site Area (hectares, net)
Chilton Industrial Estate	0.76
Chilton Extension	3.42
Dean and Chapter Industrial Estate (Ferryhill)	0.23
Green Lane Industrial Estate / Durham Gate (Spennymoor)	10.18
Low Willington Industrial Estate	11.16
Inkerman	1.16
Dan's Castle Industrial Estate (Tow Law)	0.26
Total	27.17
North Durham Delivery Area	
	Site Area (hectares, net)
Drum Industrial Estate (Chester-le-Street)	4.44
Stella Gill Industrial Estate (Chester-le-Street)	1.29
Westline Industrial Estate	1.01
Bowes Buisness Park (Lambton) (B1 only)	0.17
Lambton Estate	10.04
Total	16.95

ii excludes areas that are currently in use for employment

North West Durham Delivery Area	Site Area (hectares, net)
Villa Real (Consett Business Park)	0.78
Delves Lane South	0.61
Leadgate Industrial Estate	1.06
Tanfield Lea Industrial Estate (North)	1.9
Tanfield Lea Industrial Estate (South)	2.13
Greencroft Industrial Estate (Annfield Plain)	5.66
Number One Industrial Estate (Consett)	1.37
Total	24.31 (includes 10.8 hectares on Hownsgill Industrial Estate)
South Durham Delivery Area	Site Area (hectares, net)
Aycliffe North	10.19
Aycliffe South	11.09
Merchant Park (Newton Aycliffe)	10.12
Forrest Park (Newton Aycliffe)	50.85
South Church Enterprise Park (Bishop Auckland)	6.86
St Helens Auckland	2.46
Future Business Park (Shildon)	2.74
All Saints Industrial Estate (Shildon)	6.72
Total	101.03
South East Durham Delivery Area	Site Area (hectares, net)
Fishburn Industrial Estate	0.82
Total	0.82
West Durham Delivery Area	Site Area (hectares, net)
Harmire Industrial Estate (Barnard Castle)	2.32
Stainton Grove Industrial Estate	0.2
Land at Shaw Bank (Barnard Castle)	7.13

Randolph Coke Works (Evenwood)	2.78
Total	12.43
County Durham Total	301.54 (Includes 10.8 hectares on Hownsgill Industrial Estate)

2.16 In addition a site of 13.5 hectares at land north of NETPark, Sedgefield is allocated for uses with use class B1, specifically for Research and Development only alongside an area of 17.69 hectares to the north of NETPark allocation which is safeguarded for future expansion beyond the end of the Plan period. Further to this a site of 61.95 hectares to the west of the Integra61 allocation is safeguarded for future expansion land beyond the end of the Plan period.

3 Monitoring Areas

Countywide

Countywide Physical Infrastructure

Transport

Walking and Cycling Infrastructure

3.1 Local travel options will continue to be promoted through ongoing improvements to the existing local cycle and footpath networks as well as the existing National Cycle Network and other promoted routes. The IDP will set out key sections where we are prioritising investment. The transport section of the Schedule sets out where investment is already happening with regard to priority routes such as the Great North Cycle Way.

3.2 A process of Strategic Cycling Network Planning is being developed through the Cycling Network Planning process and will be articulated in the Local Cycling and Walking Infrastructure Plan (LCWIP). This will set out the priority for investing in the cycling network. The LCWIP will supplement the Strategic Cycling and Walking Delivery Plan for County Durham 2018-28. A key element to encouraging cycling is the provision of high quality cycle parking facilities. We have been working with ParkThatBike to install 400 stands throughout the county over the last two years.

3.3 Walking and cycling infrastructure in County Durham is delivered by the Council (with inter-connecting routes delivered by neighbouring authorities), Sustrans, public and private landowners (e.g. Forestry Commission, individuals), environmental organisations and trusts (e.g. Groundwork), private developers and partnerships (e.g. Area Action Partnerships). Good communication between partners is essential to create a comprehensive and well delivered and maintained physical network of paths and routes. Maintenance is covered by several service areas within the council. The Railway Paths are managed by the Countryside Service, Public Rights of Way are managed by the Public Right of Way (PROW) Team and cyclepaths which are part of the highway are managed by the Highways Maintenance Team.

Rail Network

3.4 The rail network is owned by Network Rail with services operated by franchised or open access train operators, but the council retains an active interest as an investment partner in services and rail infrastructure as local and long distance rail provide a key strategic opportunity to support and stimulate economic growth, linking businesses with each other and people with jobs.

3.5 With stations on the East Coast Main Line corridor at Durham City and Darlington (for communities in the south of the County), County Durham benefits from regular direct fast links to Newcastle, Edinburgh, Glasgow, Manchester, Liverpool, London the West Midlands and the South West.

3.6 There are however severe capacity constraints arising on the ECML in part from the mix of traffic types in particular high speed passenger and slow moving freight on the two track railway north of Northallerton. Currently, trains of similar speeds are 'flighted' (ie run

together) north of York to maximise capacity which prevents an even spread of passenger services through the hour. The reinstatement of the Leamside Line would be a strategically important piece of transport infrastructure for the North East relieving the existing two track railway between Darlington and Newcastle. It could also enable a number of potential new stations in the council area, for example, at Ferryhill, Belmont Park and Ride and Fencehouses.

3.7 The council fully supports the re-opening of the Leamside Line and participates in the East Coast Main Line Authorities (ECMA) group to lobby for increased capacity on the corridor north of York so that the ECML in this area can accommodate HS2 and also the specification set out by Transport for the North (TfN) in their vision for Northern Powerhouse Rail (NPR).

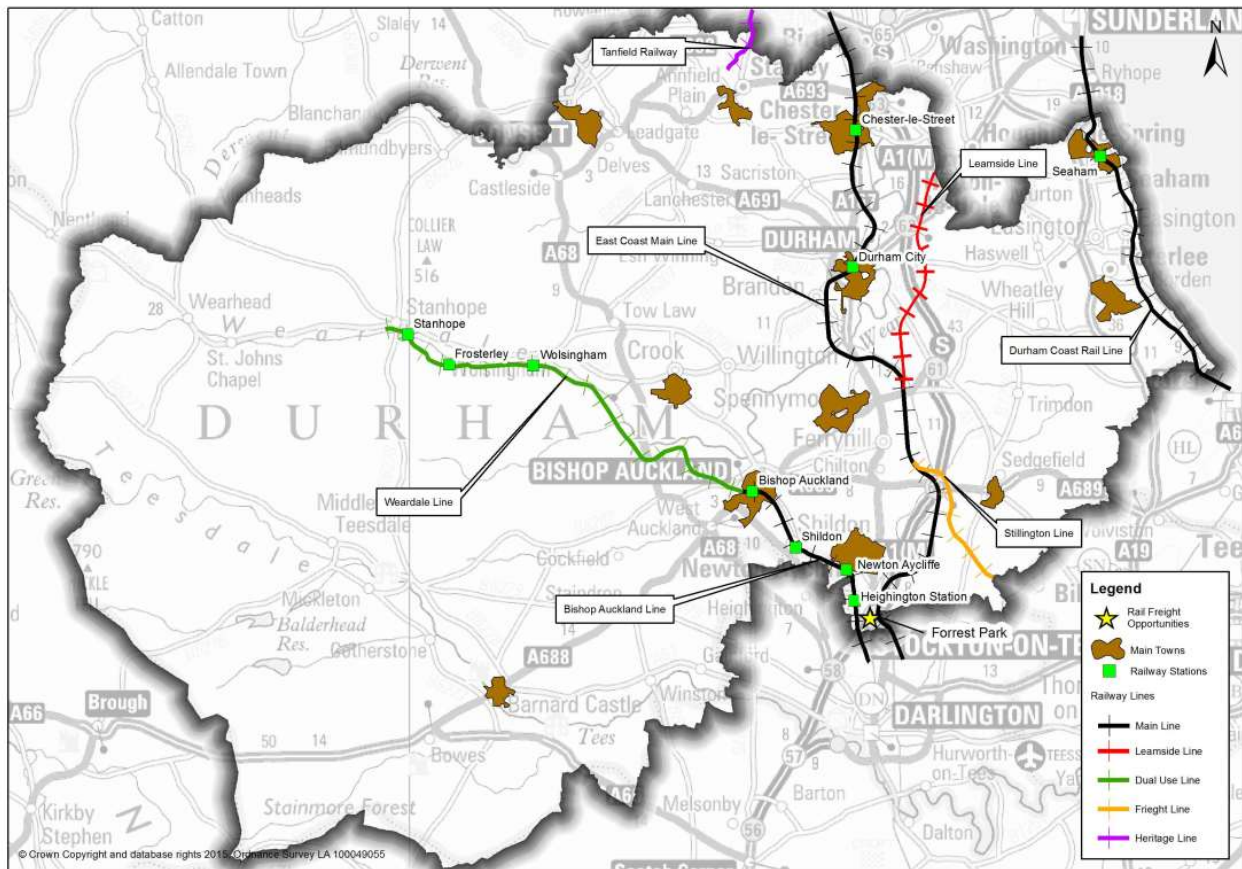
3.8 The local rail network comprising the Darlington to Bishop Auckland line ('The Bishop line') and the Durham Coast Line through Seaham is operated under the Northern Franchise. This, along with the Transpennine Franchise, is subject to devolution arrangements by which TfN share responsibility for the awarding franchises along with the Department for Transport.

3.9 The rail station estate, comprising 7 stations in County Durham are owned by Network Rail but leased and operated by the train service franchisees. A new station on the network at Horden to serve greater Peterlee is due to be completed and operational by the end of 2020.

3.10 Currently, rail freight services that start and finish in County Durham are limited. At the time of writing, there are no inter-modal freight terminals or major rail freight generators. However, the CDP has identified a potential site at Newton Aycliffe (Forrest Park) that has the potential to provide a site for the first major inland rail freight interchange in the north east and to create thousands of jobs associated with the growth of manufacturing.

3.11 The council has also been in dialogue with Nexus, operators of the Tyne and Wear Metro about their Metro Strategy and plans for refurbishment and extension of the network. The council considers carefully where these proposals may impact on the heavy rail network.

Map 2 Railway Lines, Stations and Opportunities in County Durham



Bus Improvements

3.12 Buses provide the only form of public transport in most parts of County Durham, reflecting the limited number of railway stations in the county with 22.9 million passenger journeys starting at bus stops in County Durham in 2016/17. There is an extensive network of services throughout the county with approximately 175 services in the main network plus additional services running only at school times. Over 3,000 stops are served. Most settlements in County Durham have at least 2 buses per hour during Monday to Saturday daytimes, with much higher frequencies in the main towns and along many of the main interurban corridors. While in the more rural areas services may run every hour or less often, all but the smallest settlements have regular services. However, the settlement pattern of towns and 229 villages leads to some dispersed travel patterns that almost inevitably are not feasible by public transport.

3.13 Providing an effective bus service requires a successful partnership between the council and bus operators. The council invests in local bus services in two ways.

3.14 Firstly, the council helps to maintain an environment to enable bus operators to provide reliable, attractive and accessible bus services that to a large degree are financially viable on the basis of income from passengers. This includes the provision of bus-related infrastructure such as bus stations, bus stops and shelters, bus priority lanes, supplemented

by softer measures such as comprehensive integrated information and consideration of bus service accessibility within the planning process. The council owns and manages 5 off street bus stations with 4 principal and several smaller on street interchanges.

3.15 Secondly, the council also plays an important role in ensuring that the overall bus network meets the needs of the community, including under-pinning the operation of about 15% of the network where there is insufficient demand to make the services viable on a purely commercial basis, though contracts with bus operators. The 2016/17 budget for funded services is approximately £2.7m. The supported services include routes operating across the council's boundaries to ensure comprehensive bus links with key destinations in adjoining areas, with joint funding arrangements with the neighbouring authorities where possible.

3.16 Approximately 92% of passengers are carried on bus services operated on a purely commercial basis, where the operators determine the routes, timetables and fares. Go North East and Arriva are the principal operators in County Durham, supplemented by several smaller operators which provide locally important services. The smaller operators provide a larger share of the services operating under contract to the council. All of the bus operators are responsible for their own investment in their bus fleet and depots, although the council continuously assess funding opportunities which may help operators contribute to 'greening' the bus fleet.

3.17 The location of new developments has a significant influence on travel patterns and the degree to which they can be effectively served by commercially successful bus services. The identification of sites for housing and other developments in the County Durham Plan has sought to take account of accessibility by bus services as a key consideration. The council will continue to work in partnership with bus operators to inform them of the location and scale of proposed developments. This will enable operators to build new or enhanced services meeting these new passenger demands into their own investment plans as sites come forward. Where it is apparent that additional action is required to ensure good accessibility for bus users, perhaps due to transitional effects during phased build outs (but not limited to this reason), developers will be required to provide improvements to bus services and/or infrastructure as part of planning agreements. Section 106 funding will continue to be secured on individual sites where appropriate.

Highways

3.18 The majority of people in County Durham are reliant on road infrastructure for transport. The highway network can be broadly separated into the Strategic Road Network (SRN) and the Local Road Network (LRN). However, in the future, it is likely that the government will identify a Major Road Network (MRN) which will consist of the most used A-Roads in the County. These are currently classified as being part of the LRN as they are in local authority ownership.

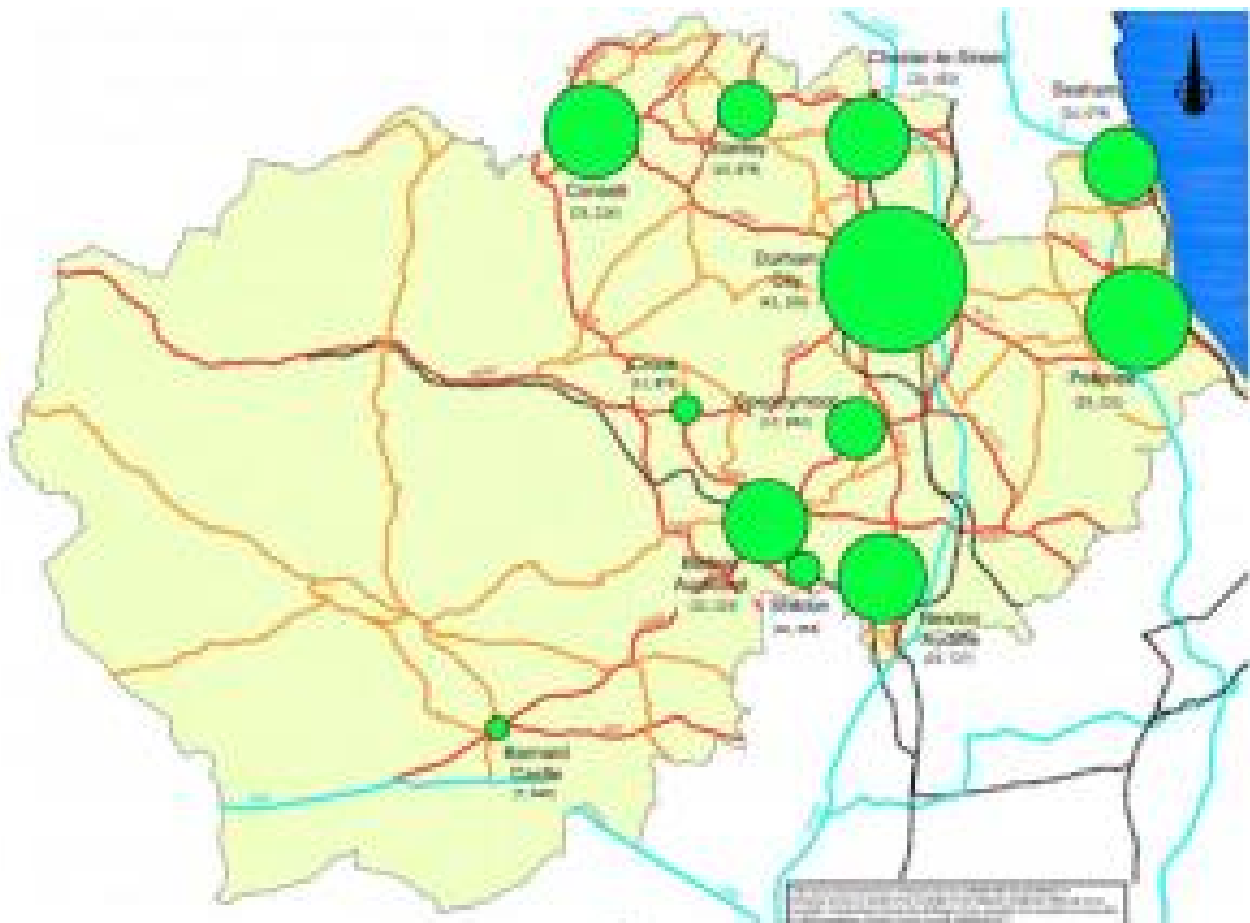
Strategic Road Network: Highways England has responsibility for maintaining and improving the Strategic Road Network (SRN). In County Durham, this includes the A19, A66 and the A1(M). The A1(M) motorway is one of the county's most important economic assets in terms of facilitating strategic access to, from and within the central corridor of County Durham. It provides the nationally significant north-south link connecting the county and the north east

with the south of England and Scotland. Newton Aycliffe, Spennymoor, Durham City and Chester-le-Street are all located in close proximity to this nationally important economic and transport corridor.

3.19 The A19 provides a north-south link through the east of the County linking Peterlee and Seaham to Tyne and Wear and Tees Valley.

3.20 The A66 is located in the south of the county and provides Barnard Castle with nearby access to the A66 and then an east-west link to the A1(M) at Scotch Corner and the M6 at Penrith. The A66 provides the key strategic route for County Durham and Teeside to link to the Lake District and the North West of England at Penrith and Tebay (via the A685). Transport for the North (TfN) are proposing upgrades to the A66 to deal with areas to the west of the county.

Map 3 Populations of Main County Durham Settlements



Impact of County Durham Plan (CDP)

3.21 Highways England (HE) have considered the employment and housing allocations presented by the council in the pre-submission version of the plan. As was their position at the preferred options stage of the CDP in 2018, Highways England have confirmed that traffic growth associated with the CDP is not a concern as the growth is within the levels that would have been forecast by TEMPRO and less than the traffic growth modelled in relation to the

withdrawn plan in 2014 (where HE offered no objection). With lower housing targets now set for the pre-submission version of the CDP, when compared to the Preferred Options, HE do not object to the impact of the County Durham Plan on the Strategic Road Network.

3.22 Cross Boundary Issues

3.23 Regional priorities for investment in the SRN across the wider North East were set in the national Roads Investment Strategy (RIS) 2015/16-19/20, which was informed through the process of preparing Route Strategies in consultation with Local Authorities and other stakeholders. The RIS sets out the Government's Strategic Vision and Action Plan for Highways England and the approach to maintaining, operating and improving the SRN in England. The RIS includes an Investment Plan that focuses on tangible improvements to the network and outlines how Highways England will invest in the SRN between 2015/16 and 2020/21. Work on RIS 2 which will cover the next 5 years from 2021 is now well underway.

3.24 The key asks of the RIS will be among some of the strategic infrastructure highlighted in the forthcoming Transport for the North Strategic Transport Plan (STP). The statutory status of Transport for the North came into effect on the 1st April 2018. As a result, TfN is now a Sub National Transport Body and has the responsibility to write the STP for the North of England. This plan will set out proposals for major road and rail infrastructure across the North as well as introducing a standard method for smart ticketing. Officers from the LA7 have been working together with TfN to identify appropriate transport investment proposals as well as identifying appropriate A roads that should be classified as part of the Major Road Network (MRN). A final plan is expected to be adopted early in 2019 alongside a complementary investment programme detailing the interventions and timescales, derived from TfNs 'multi modal corridor studies'.

3.25 Map 3 shows that the county's population centres are close to the SRN which are coloured blue. The map also shows the major local roads in County Durham.

3.26 The Local Road Network in County Durham: The council has responsibility for maintaining the local road network as well as making improvements in line with the Local Transport Plan for County Durham. The A-road network through the county supplements the longer distance role of the strategic north-south routes through the county as well as providing east-west and more localised connectivity to services and employment. These 'A' roads are known as 'economic/transport corridors' in LTP3.

3.27 The principal A-roads (excluding SRN roads) in County Durham are:

- A690 provides linkage between Durham City and Sunderland in the east and Crook and Mid Durham in the west;
- A691 provides connectivity from Consett in North West Durham and into Durham City;
- A692 provides connectivity to/from Tyne & Wear for North West Durham'
- A693 is the main lateral corridor in the north of the county, linking Consett, Stanley and Chester-le-Street,

- A167 forms a corridor between Chester-le-Street in the north and Newton Aycliffe in the south of the County linking with a number of the other A-roads and Durham City;
- A177 links Sedgfield and NETPark to the A1(M);
- A66 is a key route to Cumbria in the south west of the county, connecting locally with Darlington and the TeesValley;
- A68 has a tourist role to/from the Scottish Borders and links Consett and Tow Law to the west of the county as well as linking the County with Northumberland;
- A688 is the main corridor linking the A1(M) with Mid Durham, South Durham and rural Teesdale whilst providing access to the A66, A68 and A167;
- A689 is the main lateral corridor connecting south East Durham, South Durham and serving rural Weardale as well as linking with Teeside and Cumbria; and
- A694 is a key route from Consett into Newcastle via Rowlands Gill.

3.28 With County Durham being predominantly rural, there are also some significant B roads that play an important social role and supporting role to the transport/economic corridors within County Durham, especially roads that link settlements in the rural west.

3.29 With the emergence of the North of the Tyne Combined Authority (NTCA) in 2018, the Joint Transport Committee (JTC) will now oversee a North East Transport Plan and coordinate strategic transport decisions for both the North and South of the Tyne Combined Authorities. However, they will delegate back to the council the powers to continue managing local public transport services including managing the road network and parking requirements in the County.

3.30 A 'Transport Manifesto – Our Journey' has been developed by the NECA (a consultation took place between February and April 2016) which will feed into the development of the Local Transport Plan for the North East Combined Authority.

Junction/Highways Improvements

3.31 The IDP highlights major and minor junction improvements that are required around the county to facilitate development growth. The individual schemes are listed in each monitoring area while there is more detail around the major SRN junction improvements in each monitoring area.

3.32 In the Durham City monitoring area, we have provided a longer list and additional detail regarding transport improvements that are essential for delivering the sustainable urban extension housing sites in Durham City. This is to help provide clarity on some of the critical local highway improvements that will need to accompany the Western Relief and the Durham City Sustainable Transport Delivery Plan 2016-33 (DCSTDP 2019-35) - which includes the Northern Relief Road. The DCSTDP also provides some principals for a range of sustainable

transport projects across the city. The DCSTDP sets out how modal shift can be practically achieved in the city by identifying packages of demand management and infrastructure improvements to achieve modal shift .

3.33 The localised impact of traffic growth linked to all allocations in each settlement has though been assessed by the authority's highway officers as part of the site allocation process. Where local site access cannot be achieved, SHLAA housing sites have not been taken forward to allocations.

3.34 The council has commenced a 6 year project to replace 55,000 street lights across the county with state-of-the-art LED lights. The lights are environmentally friendly and cheaper to run and will see carbon emissions from street lights which are part of the project reduced by 73% and save around £24m over a 25 year period.

Water Management

3.35 A critical component of the infrastructure required to support new development is associated with water; the provision of clean water for domestic drinking and washing and industrial processes; the safe disposal of wastewater; and protection from flooding. In County Durham, the key issue relating to water infrastructure and strategic planning, is the timing of Northumbrian Water's (NWL) investment in Sewage Treatment Works (STWs).

3.36 There are three key organisations involved in water management in County Durham, including NWL, the council as lead local flood authority, and the Environment Agency. As a key part of the Infrastructure planning process, the three organisations above have been working together on the The Water Cycle Study (WCS), which includes a Surface Water Management Plan and the Strategic Flood Risk Assessment. The WCS assesses the potential impacts of growth on:

- Water supply;
- Water sewerage treatment plants;
- Water quality; and
- Surface water flooding.

3.37 Impact of development on water resources and water supply network: NWL has two Water Resource Zones (WRZ); Kielder WRZ and Berwick WRZ. County Durham falls within the Kielder WRZ which is not forecast to experience a deficit in water resources or water supply in the long term. The River Wear and Tees are regulated by the presence of Kielder Water; Northern Europe's largest man-made lake which has capacity to hold 200,000ML of water. The Kielder Water Scheme allows transfers to be made between the major north east catchments and allows water resources to be used to a fuller extent if and when needed. In addition there is also Derwent Reservoir within the county. There is sufficient resource in the WRZ to address future demand.

3.38 In terms of the supply network, NWL has reviewed the CDP housing allocation sites. Investment will be required to address poor water pressure and getting water to sites at a higher elevation.

3.39 Impact of development on sewerage treatment works (STW): Due to the large geography of County Durham the provision of STWs is one of the major infrastructure challenges in the county. There are around 70 water sewerage treatment plants in the County as well as an extensive river network. As part of the WCS, NWL provided the catchment areas for each of their STWs which enabled the forecast housing development to be grouped by STW so that the cumulative impact of development could be evaluated.

3.40 Water quality: There are a number of watercourses across County Durham that are currently failing EU Water Framework Directive (WFD) targets and are at risk of not achieving WFD objectives. The reason for the failures may in part be because of discharges from STWs and the Environment Agency has a programme of measures to improve these watercourses. As part of the partnership approach to the Plan, the EA and the council are now aligning investment plans to implement GI Frameworks to improve water quality on any water courses in close proximity to large allocations.

3.41 Surface water: Flooding from surface water presents a risk across County Durham, particularly in the urban areas. New developments present the best opportunities to manage the risk of surface water flooding - particularly the development of combined sewer networks. The Water Management Policy of the CDP seeks to protect and enhance the water environment, making prudent use of water resources and encouraging the use of Sustainable Urban Drainage System (SUDS). The Water Management Policy in the CDP has been used by NWL as an example of best practice policy.

3.42 Investment Planning: The Current investment plan being used by NWL is called AMP6 and runs from April 2015 to March 2020. The council have been working closely with NWL to influence the investment planning for the current plan period. The priorities for AMP 6 are set out in this document. AMP 6 has been agreed with the water regulator (OFWAT) and the investment priorities of NWL reflect the development aspiration and allocations of the CDP. This is a direct result of the partnership working between Durham County Council, Northumbrian Water Ltd and the Environment Agency as part of the IDP and the WCS.

3.43 £80m of AMP6 which will focus on improvements to the sewage and drainage network (see the IDP schedule). The council will work in partnership with NWL to highlight when development sites are coming forward to help influence NWLs investment schedule.

Broadband

3.44 Digital technologies are becoming increasingly important for modern living and working practices, and access to high speed, reliable broadband is now considered a necessity for many people.

3.45 An effective broadband network is vital for businesses to support economic growth and efficiencies, and to allow them to compete in a global market. Equally, the social benefits are vast and have the potential to transform many aspects of people's lives – from education to entertainment, and improving the opportunities for employment through flexible and remote working. Good broadband services can also facilitate access to a broad range of public services, making them more available, convenient and cost effective.

3.46 Digital infrastructure isn't built without foresight, planning, investment and innovation. Whilst the network is largely delivered and managed by private sector telecommunications providers, the Digital Durham programme has been in place since March 2012 aiming to improve the availability of Next Generation Access (NGA) broadband to areas outside of any commercial plans.

3.47 Led by the council, Digital Durham encompasses nine other North East local authority areas; Gateshead Council, North Tyneside Council, South Tyneside Council, Sunderland City Council and the Tees Valley Combined Authority covering the five Tees Valley councils.

3.48 Under the programme, the council is working in partnership with the UK Government and aforementioned local authorities to help improve broadband speeds for residents and businesses through several broadband and digital initiatives.

3.49 Central to the programme has been the award of two contracts, collectively worth £35 million, to supplier British Telecom (BT) to extend fibre infrastructure to as many businesses, homes and communities in the region as possible with the funding available. In terms of County Durham alone, £15.86 million worth of public funding is being jointly invested by the council and Government, as well as an additional capital outlay by BT.

3.50 The rollout has focused on upgrading exchange buildings and expanding the physical fibre network. As of May 2018, the programme has enabled more than 700 fibre structures and rolled out approximately 650km of fibre. By the end of Phase two in 2018, more than 112,000 properties across the programme area can benefit from a superfast broadband service if they upgrade through an Internet Service Provider.

3.51 By April 2018, the take up of fibre-based broadband services to properties supplied through infrastructure installed under Contract One of the programme was more than double the UK Government target of 20% - a clear indication of the demand for faster broadband speeds.

3.52 At the end of 2017, 96% of homes and businesses in County Durham have access to superfast broadband speeds of 24Mbps or more, which is slightly ahead of the UK Government target of 95%.

3.53 The programme plans to continue to extend NGA coverage using the available funding. One of the key challenges is to improve broadband services to the remaining properties that are scattered over a wide geography in remote and isolated areas of the County, with no underground duct or overhead infrastructure to enable fibre cables to be readily extended. However, technology continues to develop and other options to fixed line broadband services may also be considered in the future.

3.54 The CDP will facilitate the development of additional residential and non-residential properties, which is likely to drive demand for broadband. Most businesses will demand a good standard of broadband, and ideally new commercial property will be primarily developed in and around larger towns and villages which are more likely to have access to the existing fibre network. New developments are outside of the scope of the Digital Durham programme and it is the responsibility of the developer to organise the provision of fibre to a site. Direct fibre access is the most 'future-proof' option and the council will require developers to include this provision to properties on new build or major site renovations. Exceptions may be made

in circumstances where applicants must show through consultation with broadband infrastructure providers, that this would not be possible, appropriate, practical or economically viable.

3.55 As a complement to these services, the council's Digital and Customer Service Infrastructure Team support the council's telecommunications networks and provide a range of services to external organisations. This includes over 600 schools, NHS hospitals, police and fire services and a number of community and third sector organisations. A set of service level agreements are in place to support network provision, Internet services, digital security measures and communications systems that underpin the activities of these important services.

Mobile Communications

3.56 The planning for mobile communications infrastructure is largely market driven by the various mobile operators and providers. However, the council refers to and complies with the [Code of Best Practice on Mobile Network Development in England](#). The code has been developed by Arqiva, Historic England, the Mobile Operators Association, National Parks England and the Planning Officers Society. The code has been developed in line with the NPPF and the council has ensured that proposed policies in the CDP are consistent with section 10 (supporting high quality communications) of the NPPF.

Energy

3.57 Northern Powergrid is responsible for delivering electricity to homes across County Durham and Northern Gas Networks is responsible for delivering gas. The county has 27 primary electricity sub-stations which have enough power to supply 12,000 homes, secondary sub-stations spread across the county provide at a very local level for around 400 homes. The gas network includes pipelines that supply premises across the county.

3.58 The scale of development proposed in the CDP does not concern Northern Gas Network or Northern Powergrid. Work has been ongoing with Northern Powergrid to identify requirements for larger allocations proposed across the county and details are included in the funding schedules.

3.59 There is a continuing emphasis for energy suppliers to make the transition to renewable energy sources as well as the development of new technology that supports it. More energy efficient home appliances and the ongoing economic downturn are combining to reduce overall demand for energy. Other energy challenges include:

- The growing use of photovoltaic and small-scale wind turbines to generate energy means electricity sub-stations need to be upgraded to enable them to manage supply and demand in changing weather conditions and different times of the day;
- In some areas, particularly those without gas, there is growing use of heat pumps which use electricity to generate heat and can lead to power surges, especially during mornings;

- A surge in the demand for electric vehicles could also lead to the need for significant infrastructure upgrades. This is needed in order to respond to additional demands for electricity which may contrast with traditional consumption patterns (e.g. growing demand at traditional off-peak times of the day); and
- In County Durham large-scale wind energy developments are unlikely to continue on the same scale as in the last 5 years because of constraints on remaining sites.

Electric Vehicles

3.60 For both economic and environmental reasons it is important to assist the development of the low carbon economy. An element of this new economic outlook is looking to more sustainable travel and support for a growing market for electric vehicles in the region. As part of this approach, the provision of electric charging points within the public realm needs to be pursued to provide the essential confidence for drivers arising from range anxiety.

Regeneration Masterplans

The council, Area Action Partnerships and partners will continue to prioritise town centres including the retail sector support and key public realm improvements through the preparation of updated Masterplans for the larger towns. The Masterplans will contain detailed information relating to specific regeneration programmes and initiatives including physical and social regeneration programmes being implemented across the Masterplan area, as such this information is not included within the IDP.

Countywide Social Infrastructure

School Places

3.61 There are 268 schools in County Durham and one Pupil Referral Unit that provides education for pupils permanently excluded from mainstream school:

- 30 Secondary Schools (including 17 Academies);
- 1 Sixth Form Centre;
- 10 Special Schools;
- 194 Primary Schools (including 18 Academies);
- 10 Junior Schools (including 2 Academy);
- 10 Infant Schools (including 1 Academy); and
- 11 Nursery Schools.

3.62 Primary school pupil numbers are projected to increase slightly from 2018 to 2020. From 2021 numbers are expected to remain constant until 2027 whereupon they are expected to increase to 2032. By 2032 there is expected to be in the region of 1,800 more primary age pupils than there are in 2018. Secondary school numbers (11-16) are projected to increase each year from 2018 – 2023. From 2023 numbers are expected to fluctuate each year to 2032. In 2023 there are expected to be approximately 750 more secondary age pupils than there are in 2018. However these increases do not take account of future housing developments which are likely to be built over the next 15-20 years to respond to the council's aspirations to make County Durham a prime location for business to enable a thriving economy for the county. This will have a significant impact on the future pattern and provision of school places. While it is not cost effective to maintain large numbers of surplus places in schools, local authorities cannot and should not try to eliminate all surplus capacity. A certain level of surplus places is necessary because:

- It allows greater opportunity to respond to parental preference;
- There may be unpredicted changes to demographic patterns, with a sudden influx of children to particular areas; and
- There may be unexpected changes to house building patterns.

3.63 There is no single 'ideal' level of overall surplus capacity, since this varies from authority to authority. It is reasonable to aim for between 5% and 10% overall surplus across the authority. Patterns show that a reasonable figure for urban areas is around 5% whereas in more rural areas it is around 10%. It is recognised that in some rural areas in County Durham it may be difficult to achieve this target. Future capital investment in schools will reflect Government initiatives; any additional funding will be used to improve the condition and suitability of buildings and the provision of additional school places where required.

3.64 The County Council has an agreed admission policy for primary and secondary education, along with an appeals process, details are available on the County Council website ([DCC Admission Policy](#)).

County Durham and Darlington NHS Foundation Trust

3.65 County Durham and Darlington NHS Foundation Trust have 8 hospitals covering County Durham, which are as follows;

Darlington Memorial Hospital, University Hospital of North Durham (Durham City), Bishop Auckland Hospital, Chester-le-Street Community Hospital, Shotley Bridge Community Hospital, Sedgefield Community Hospital, Richardson Hospital (Barnard Castle) and Weardale Community Hospital (Stanhope)

3.66 Whilst hospitals do serve catchment areas, they also specialise in certain clinical areas e.g. University Hospital of North Durham specialises in stroke, whereas James Cook Hospital based in Middlesbrough specialises in cardiac and therefore patients diagnosed with a condition may not be taken to nearest hospital but the one with the most appropriate specialism.

3.67 The Trust is aware of the proposals within the CDP and these have formed part of the Trust business case and planning application approved for the A&E extension to the University Hospital of North Durham in Durham City. When the A&E was original built it was predicted to accommodate 30,000 patients per annum, currently it accommodated 60,000 patients per annum and is predicted to increase to 90,000 per annum in the next 15 years.

3.68 Funding for health services is in some respects is related to patient throughput (eg. A&E services), therefore the more people attending the greater level of funding received by the Trust. Clinical Commissioning Groups (CCGs) are responsible for commissioning health services for the local population and put some services out to tender, which can result in the private sector delivering some services.

GP Surgeries and Health Care

3.69 The population growth experienced in County Durham between 2001 and 2015 has been absorbed by healthcare facilities. Future increases in populations may put pressure on existing community and primary care infrastructure until central health funding is accessed by service providers due to the increase in population. There is limited capacity within the health sector to fund new infrastructure projects. A further consideration is the workforce impact of population growth, ensuring sufficient clinical staff will be available to meet patient need. The information contained within the IDP relates to the physical infrastructure required to support patients, and not the number of GPs or Nursing staff available or required to deliver services.

3.70 County Durham has an increasingly ageing population and the proportion of the county's population aged 65 or over will increase from almost one in five people (18%, 2011) to one in four people (25.7%) by 2035. As the age of the population increases there is an increase in the demand for healthcare services, with consultation rates in general practice rising substantially along with contacts with secondary care services. It is likely that the ageing population would place substantial pressure on existing facilities; therefore population growth is unlikely to be absorbed by the current facilities. Commissioners are currently assessing the impact of this level of population growth on their commissioning intentions.

3.71 The assessment outlined in the IDP merely identifies hot-spots, or areas where there is likely to be a requirement for investment in additional consulting space in general practice based on current patterns of care. No funding is currently in place to support either the capital investment in building clinical space or the recurrent revenue costs to commissioners once the building works are complete. The council is in the process of developing a developer contributions policy which will seek to secure contributions from developers towards the mitigation of any pressures relating to healthcare from specific development sites.

3.72 A locality approach has been taken in calculating impact as the final location of patients in general practice is driven by patient choice. There may be some localised impacts from growth in list sizes at individual practices. The council will continue to work with NHS Property Services, North Durham Clinical Commissioning Group and Durham Dales, Easington and Sedgfield Clincial Commissioning Group to assess the impact of growth on services and appropriate mitigation responses.

Emergency Services

3.73 Emergency services are vital for residents and businesses across the County and are very much affected by the quality of the County's infrastructure. The emergency services has been updated with the progress of the CDP to ensure they are aware of future development areas in the County Durham.

3.74 Emergency services are provided by Durham Constabulary, the North East Ambulance Services (funded by the PCT) and the County Durham and Darlington Fire and Rescue Service.

3.75 Durham Constabulary - The police are a key delivery agency in providing and maintaining sustainable communities. This goes beyond provision of physical building assets. Any new household will require policing services for a range of issues throughout their lifetime. For example:

- Criminal records checks of any supervisors involved with any activities their children may be involved with (e.g. sports clubs);
- Dealing with any crime , e.g. burglary, car crime and violence against the person;
- Dealing with other calls for service such as anti-social behaviour, road traffic incidents and public events;
- Introducing speed reduction initiatives if this becomes an issue on their estate or at their school; and
- There are also a range of covert/intelligence services provided, which are not visible to the local community but nonetheless vital to ensuring public protection.

3.76 There are currently no geographical deficits in service provision by Durham Constabulary. With regard to estate projects, generally there is a commitment to utilise existing assets and not to shut local police stations. However the police estates team may look to re-locate where they can find a better premises in the same location. Where possible, the police would also like to have a presence in community buildings and co-locate with other services to make the stations more accessible to the public.'

3.77 North East Ambulance Services (NEAS): Despite an increased number of walk-in centres, the ambulance service is always stretched. Ongoing changes to delivery of hospital services such as the centralisation of specialist services (e.g. neurosurgery at James Cook University Hospital, Middlesbrough) may mean crews have to make longer trips. NEAS would welcome transport improvements anywhere but particularly around Durham City as it would help improve response times.

3.78 County Durham and Darlington and Rescue Authority Fire: has embarked on an ambitious estate renewal and improvement programme that aims to modernise the estate so that it is fit for purpose and provides a basis for delivering efficient and effective services to the community in future years.

3.79 A ‘quad service station’ will be built at Barnard Castle which is believed to be the first ‘quad service station’ in the country. The station will be built on the existing fire station site and will allow the Police and Ambulance teams to re-locate from their existing sites into a new shared facility. The Teesdale and Weardale Search and Mountain Rescue Team (TWSMRT) would also relocate from their current base at Barnard Castle Police Station into the shared site with a secondary TWSRMT base incorporated at Durham fire station.

3.80 Public sector organisations often need to be located in towns that have good public transport access, so there are potential opportunities for co-location with other public sector organisations and services that support the physical regeneration of key towns. The location and access for each is paramount, therefore infrastructure improvements in the CDP which leads to lower congestion mean emergency services can react more quickly.

Visitor Economy

3.81 Durham is essentially a heritage, countryside and coastal destination with outstanding natural landscapes and internationally famous built heritage. Durham World Heritage Site (Durham Cathedral and Castle) was inscribed on the World Heritage List by UNESCO in 1986 and the North Pennines Area of Outstanding Natural Beauty was designated a UNESCO Global Geopark in 2015.

3.82 New tourism products in recent years have built on Durham’s heritage assets and major events have highlighted these at a national level. Heritage continues to be forefront of development over the coming years with the plans to develop a 1950s themed offer at Beamish Museum, the emergence of Bishop Auckland as a destination under several ongoing Auckland Project developments and the Cathedral’s Open Treasure project enhancing the city’s World Heritage Site. There are exciting plans for Raby Castle’s offer, Locomotion and the Bowes Museum continue to innovate. Seaham is also blossoming as a destination based on a growing selection of cafes and the emerging Seaham Marina which now boasts excellent water sports facilities and the town and the Durham Heritage Coast now benefits from the recently opened England Coastal Path.

3.83 Durham has high quality countryside that is valued by walking, cycling and more and more by horse riding visitors looking for rural short breaks and holidays. Durham is now successfully positioning itself as a distinctive destination based not only on heritage and landscape, but through it’s Dark Skies tourism, it’s local produce offer and through its wide range of events. Durham is also benefitting from the emergence the County’s place brand ‘Place of Light’ which articulates Durham as a place to visit, study, live, work and invest in.

3.84 Attractions: There are approximately 70 visitor attractions in the county⁽ⁱⁱⁱ⁾. The most visited attractions in 2017 (for which there is data) with footfall of more than 50,000 were:

Beamish Museum 797,203	Durham Cathedral 638,338
Hamsterley Forest 473,535	Locomotion 185,107
Palace Green Library 149,399	WHS visitor centre 79,286

iii Source: Visit County Durham

The Oriental Museum 89,951	The Bowes Museum 76,144
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3.85 Durham is in the process of establishing itself as nationally and internationally recognised destination and the aim is to eventually compare well with honeypot destinations such as Cornwall, the Lake District and Yorkshire. In the meantime Durham is beginning to differentiate from itself from its current peers such as Lincoln/Lincolnshire and Chester/Cheshire. It is developing rapidly, but still has gaps in product in the city and rural areas, which would normally be expected in more mature visitor destinations. It is clear where to focus in the next two years of the Durham Tourism Management Plan 2016-2020: enhancing its heritage assets, animating its countryside and growing its arts and culture product. However, for completeness, there follows a list of specific gaps in the visitor offer, which if developed, would provide breadth and depth to the offer:

Lengthen the amount of time that visitors spend in the county	Improve the quality of the visitor experience post arrival
Differentiate Durham for external audiences	Attract new staying visitors to the county
Retain existing day visitors to the county	Address seasonality
Develop new product and support existing product strengths	Improve SME and micro business performance

3.86 Durham is considered an emerging destination for visitors compared with English honeypot destinations such as Cornwall, the Lake District, Yorkshire and Kent. It is developing rapidly but still has gaps in product in the city and rural areas, which would be found in more mature visitor destinations. It is clear where to focus in the next four years: enhancing its heritage assets, animating its countryside and growing its arts and culture product. However, for completeness, there follows a list of specific gaps in the visitor offer, which if developed, would provide breadth and depth to the offer:

Product development in Durham City	Conferencing facilities
Art galleries	Countryside events
Country sports	Distinctive retail offer
Evening economy and entertainment	Family attractions
Gardens, parks and public spaces	Quality restaurants
National Trust properties	Transport and connectivity

3.87 The DTMaP includes a full list of gaps and challenges in the County Durham tourism product and as such further information relating to the visitor economy can be found in the DTMaP.

Libraries

3.88 Library services form a key part of the social infrastructure in major and smaller settlements as well as an important role in promoting social inclusion and interactions and supporting learning and leisure activities. The service is facing challenges due to changes in the way people access and communicate information and will require the service to continue to adapt in the future.

3.89 Durham County Council delivers the library service which consists of:

- A network of 39 libraries in town centres and communities and a support service that delivers books to and between libraries, and
- An outreach service that includes books delivered directly to people in their homes and includes some care homes, a prison library service, a mobile library service that delivers to isolated villages in the rural west of the county and a web-based library catalogue.

3.90 Almost 60,000 people regularly use the library service to borrow books. Customers of libraries do not necessarily use a library close to their own homes although this is undoubtedly the preferred method in smaller settlements. People travel to libraries from across the county and neighbouring settlements, or, some may use a library near to where they work or when they are shopping nearby.

3.91 The council recognises that in order to provide services in the most cost effective way in the future services should be co-located with other council services where there are efficiencies to be made and shared benefits for local people and the council. A number of new developments have been completed in a move to modernise and reduce costs, these include the relocation of Newton Aycliffe library within the leisure centre, re-provision at Esh Winning and Stanley and the relocation of Peterlee library into Peterlee leisure centre.

3.92 Work is ongoing to transform the service design for many cultural facilities in County Durham. This work will be completed by 2020 with a view to delivering a new service that reaches and meets community needs.

Sports Facilities

3.93 Sports facilities are delivered by a mix of organisations. The majority of sports halls and facilities are owned and managed by the council (either in its leisure services capacity or as an education authority). The council currently provides 14 indoor sport and leisure facilities across the county, many of which were constructed in the 1970s and early 1980s. 10 of these are managed directly by the Sport and Leisure Service and 4 are managed under contract by third party organisations. Freemans Quay in Durham City and the newly opened Consett Leisure Centre are both examples of modern, well used sports facilities.

3.94 There are also a significant number of sports facilities delivered by private sports clubs and through a range of private organisations including commercial sport providers and also private hotels. The private market has expanded into health and fitness provision (which may include pool provision), but the private sector still plays a smaller role across County

Durham compared with England as a whole. Through the Durham Ask Project 4 former DCC venues have transferred into community management. This model of asset transfer will be pursued for other suitable venues.

Table 1 Level of Sports Facility Provision in the County

Type of Sports Facility	Comment
Swimming pools	<p>There is a total of 25 swimming pools which meet FPM criteria. They are spread across 17 sites within Durham and are available for community use all or part of the peak period. As might be anticipated the majority are local authority facilities, 5 are on education sites and 3 are on health club/hotel sites. The supply of waterspace per '000 persons in Durham (10.12) is noticeably below an equivalent regional rate (12.53) and the national rate (12.75). In terms of supply and demand across Durham estimates suggest that the resident population generates demand of a minimum of 5,441 sq m of pool provision, which includes a comfort factor of 70% occupancy. This compares with a current total supply of 5,257 sq m (4,219 sq m when scaled to take account of hours available during peak period) representing a shortfall range of -184 to -1,222 sq m.</p>
Sports halls	<p>There are 117 operational halls, however, 30 of these are below the size of a badminton court; 37 are equivalent to 1 or 2 badminton courts and two are the equivalent to 3 courts in size. The county has 50 sports halls which are 4 courts or larger in size. This includes four 6-court halls plus three 8 court halls at Consett, Newton Aycliffe and Peterlee leisure centres and one 10-court hall at the Louisa Centre. The main significance of larger halls is that they can accommodate a wider range of activities such as city-wide and regional events, making them attractive in the context of sports development and competition programmes. The majority of sports halls in Durham (c.70%) are located on education sites. In the main, they are provided at community schools (36.7%) or academies (11.1%). Around 8 in 10 of these offer community access in one form or another (50% clubs or community associations and 30% pay and play), 20% are for private use only. 91% of demand is met by available supply, Unmet demand is considered to result from the small number of residents who do not have a hall within walking distance and who also lack access to a car at their household. Sports hall space per capita in Durham (5.3 courts/10,000 persons) is significantly above the national rate (4.0) and just above the north east average (5.1).</p>
Health & fitness gyms	<p>Active Places provides data on 55 operational health and fitness gyms; they are managed by a range of providers from private operators to schools & colleges, community leisure associations and the council's health and fitness gyms and sports services. There are 2,637 fitness stations across 55 operational facilities. One in five (20.0%) of these contain fewer than 20 stations, while five (9.1%) contain more than</p>

Type of Sports Facility	Comment
	100; four of these large venues are DCC leisure centres and the fifth a private members club. Just under half (27: 49.1%) contain between 35-99 stations.
Athletics tracks	There are five key facilities in the area: <ul style="list-style-type: none"> • Shildon - Shildon Running & Athletic Club and Newton Aycliffe Running Club; • Riverside (Chester-le-Street) - Chester-le-Street & District Athletics Club; • Maiden Castle (University) - Durham City Harriers & A.C and Team Durham; and • Consett Leisure Centre Sprint Track.
Synthetic turf pitches (STPs)	12 full size, floodlit synthetic turf pitches, 8 of which are located on educational sites.
Indoor tennis facilities	No facilities.
Golf courses	21 golf courses (3 courses are provided at 1 facility) and 5 driving ranges.
Indoor bowls	8 indoor bowls facilities.
Cricket pitches	94 across the county, 14 in Durham City and 13 in East Durham.
Football pitches	611 across the county, 104 in East Durham and 76 in Durham City.

3.95 Sports provision across boundaries must be taken into consideration. Sunderland Olympic swimming pool means that the council are unlikely to build a 50 metre pool in County Durham. There are more synthetic athletics tracks outside of the County boundary that may serve some of its residents, e.g. Silksworth & Gateshead in Tyne and Wear, Eastbourne in Darlington and Wentworth in Northumberland.

3.96 Work is ongoing to finalise the Built Facilities Strategy for County Durham which will take into consideration the predicted growth in population and housing numbers in County Durham and any likely increased pressure placed on existing sports facilities and any demand for new provision. The strategy will assess current indoor and outdoor facilities exploring the possibilities of co-location of leisure, cultural and library services and facilities.

Countywide Green Infrastructure

Green Infrastructure (GI)

3.97 Green Infrastructure (GI) is the multifunctional network of green spaces and corridors, within and between cities, towns and villages. It includes public open space, such as parks, play areas, sports pitches, allotments and cemeteries; wildlife sites and habitats; landscaped spaces within developments and private open space. Footpaths and public rights of way which are discussed elsewhere can also be classified as GI.

3.98 Existing GI will normally be protected and new development will be expected to deliver the creation and/or improvement of an appropriate amount and type of GI.

3.99 GI will be delivered through:

- Incorporation of new GI within development sites;
- Improvement of existing GI related to the development of sites; and
- Creation of new GI related to the development of sites.

3.100 GI will be expected to achieve stringent quality standards, ensuring that it functions well, is interconnected with the surrounding built and natural environment, appropriate to context and resilient. In most cases developers will be expected to maintain new GI for 12 months after completion and provide for the maintenance of the site thereafter.

3.101 These requirements are set out in the CDP and the county's Strategic Green Infrastructure Framework.

North Durham

Travel Patterns in North Durham from Main Settlements

3.102 According to Census data (2011),^(iv) North Durham has the strongest commuting relationship with neighbouring authorities. 53% of journey to work trips are cross boundary trips while 32% of journeys terminating in North Durham are the result of cross boundary movement.

3.103 This is mainly due to the Chester-le-Street being the largest settlement in the area being located on the edge of Tyne and Wear. This area also has a strong relationship with Durham City with 27% of out-commuting journeys terminating in this area.

Walking and Cycling

3.104 Ongoing investment in walking and cycling infrastructure in north Durham is occurring through a number of specific schemes not linked to the County Durham Plan. In the future modal shift to walking and cycling should be a key aim. Cycling routes will be identified in the Local Cycling and Walking Infrastructure Plan (LCWIP) and these will help determine future priorities for investment. Chester-le-Street will be one of the first towns in the county to have routes mapped.

3.105 In addition, in this part of County Durham, there has been recent investment in the Great North Cycleway, which will link Blyth in Northumberland with Darlington in the Tees Valley, this will continue to be delivered in conjunction with Newcastle City and Gateshead Borough Council. The section between the Hermitage roundabout and the Riverside roundabout (Chester-le-Street) has been delivered using existing Local Transport Plan funding.

Rail Network

3.106 Chester-le-Street station (230,972 passenger journeys per annum in 2016/17) is managed as part of the 'Northern' Franchise but is predominantly served by the two hourly First Trans-Pennine Express (FTPE) with some journeys provided by Northern (particularly the AM peak to Newcastle) and Arriva Cross Country (AXC). Most journeys are currently to/from Newcastle with high demand at the commuting peaks but strong flows through the day. Other markets, such as Durham City and Manchester Airport do exist. Sporting and other large events at the Riverside Cricket Ground in Chester-le-Street result in high passenger numbers and some strengthened services.

3.107 Current frequency is poor with only 1 train every two hours in each direction but there is an aspiration for an hourly service. The council have support within Rail North for a second FTPE service to Newcastle per hour that would allow an hourly service at Chester-le-Street as well as reinstating direct links from the North East to Manchester Airport.

3.108 Chester-le-Street station is under the ownership of Northern but the station recently lost the services of 'Chester le Track' who had sub-leased the station. Chester le Track used to run a ticket office and other customer services at the station so their withdrawal from

iv County Durham Travel Patterns, Durham County Council, 2011 Census Data Analysis

Chester-le-Street has been to the detriment of the station operation as a whole. Therefore, the council would support a better quality of customer services at the station, whatever the delivery model.

Bus

3.109 Chester-le-Street bus interchange comprises 11 on street stands spread between Front Street and South Burns with 52 departures per weekday daytime hour. There are shelters at each stand with real time and printed information displays.

3.110 The location of new developments has a significant influence on travel patterns and the degree to which they can be effectively served by commercially successful bus services. An initial assessment of sites with potential for residential development has shown many have inherently strong scope for accessibility by bus services, and this has influenced the selection of sites for the County Durham Plan.

Highways

3.111 On the basis of the employment and housing sites supplied to Highways England, the high level review of the evidence has concluded that it is likely that there will be a reduction in traffic demands at the Strategic Road Network (SRN) associated with the CDP. ~~With Junction 63 and the area around Junction 63 being having been recently upgraded, it is not anticipated that any capacity issues will be flagged in the next round of SRN modelling.~~ Junction 63 and the area around junction 63 have been recently upgraded.

Table 4 North Durham Highway Improvements Required

Delivery Area	Settlement	Highway Improvements Required
North Durham	N/A	Following recent investment, there is no further highway improvements currently identified in North Durham.

Broadband

3.112 Factors that affect broadband quality include the distance of the line from the telephone exchange serving it, the gauge and quality of the wires or cable, the number of connections on the line between the exchange and the premises, interference from radios or electrical equipment, and the quality of the equipment customers use. Although the internet can be accessed wirelessly in some locations, broadband is traditionally delivered through wired and fibre optic networks.

3.113 As a result of the Digital Durham project supported by the Department for Culture, Media and Sport, local authorities and British Telecom most areas within north Durham should experience an improvement in the quality and speed of broadband services through the roll out of fibre services.

Water Management

3.114 Chester-le-Street - is served by both Birtley and Chester-le-Street STW that both have capacity although for sites on the border of the 2 catchments, there is a current preference that they should be directed to Birtley if possible.

3.115 Fluvial Flooding: Flood risk has been identified from the Chester Burn in Chester-le-Street, the Environment Agency are leading on Flood Defence work in Chester-Le-Street. The council is working with partners to develop a scheme which will focus on the opening up of the culvert in the market place. A funding bid has been prepared for European Funding, at the time of writing the council is awaiting the final decision to be announced. The works will also help facilitate wider regeneration activities in the town and further details can be found in the emerging Chester-le-Street masterplan.

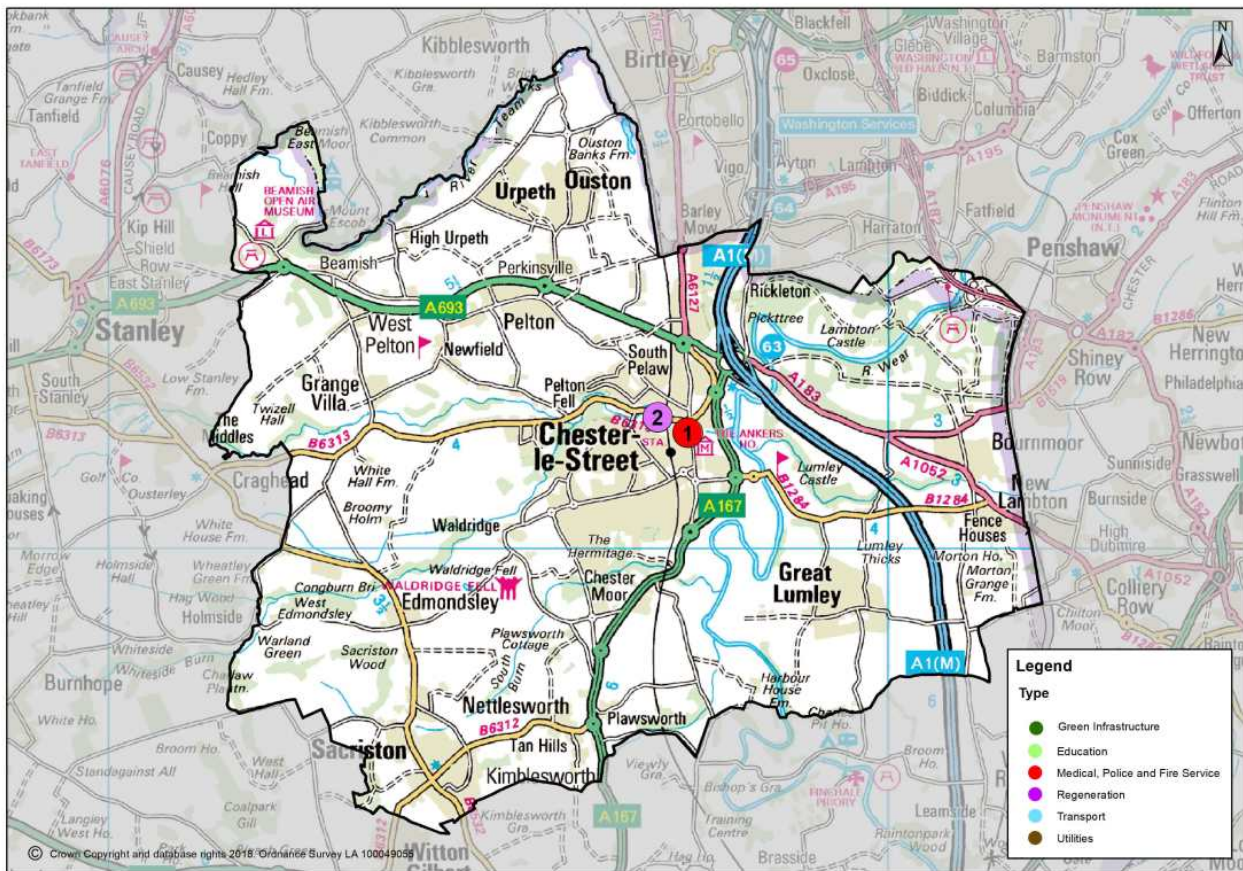
Surface Water

3.116 New developments present the best opportunities to manage the risk of surface water flooding, particularly the development of combined sewer networks. NWL have done an initial assessment of the foul and surface water drainage networks across the allocated sites in North Durham. Results show that surface water will need to be carefully managed at the majority of sites in North Durham. The application of the water management and water infrastructure policies of the CDP will be crucial to managing flood risk.

Town Centres

3.117 Chester-le-Street, in north Durham, has a growing profile as a leisure destination due to the Emirates Riverside International Cricket Ground, Riverside Park and close links to Beamish Museum. Other attractions include Lumley Castle, Lambton Castle, Waldrige Fell and a developing programme of regular events and concerts in Riverside Park and at the Emirates Riverside. In each of these attractions, the focus is on expanding and diversifying the offer to attract more visitors and investment. Work is underway to better define the purpose of the town centre in relation to the nearby towns and cities and Chester-le-Street's heritage and assets, and improve the way the town is promoted. A dedicated masterplan for the town is being developed which will seek to focus on tackling vacant units and clusters of vacant properties, improving the overall environmental quality and increasing the numbers of people who visit the town centre.

Picture 1



GP Surgeries and Health Care

Chester-le-Street

3.118 General Practice premises in Chester-le-Street are undersized for the existing population. The proposed growth would exacerbate this situation without a confirmed investment plan as a result of existing commitments and new sites in Chester-le-Street area. The council will continue to engage with the local Clinical Commissioning Group and NHS Property Services regarding the possible impact from developments on service provision.

3.119 It is important to acknowledge that NHS England in Durham, Darlington and Tees locality currently do not have any funds available for new investments in general practice premises. Therefore, increases in demand will need to be managed within existing facilities, there is some scope for this given that many surgeries currently only operate weekday office hours. Healthcare infrastructure is an expensive resource and increasingly will need to be used as fully as possible to meet demand and population growth. If additional funds can be identified as part of the planning process to support extending current or new facilities and services this can contribute towards mitigation, however, this does not address any long-term revenue implications or gaps between securing additional revenue funding.

School Places

3.120 There are no proposed housing allocations in the Chester-le-Street area, however, any windfall sites coming forward would need to ensure appropriate mitigation is provided. As such the councils [Developer Contributions for Education Provision](#) policy will be relevant.

Visitor Economy

3.121 Durham County Cricket Club have planning consent approved for a hotel development and discussions are still ongoing and there is no timetable for development. In addition there are aspirations to enhance conference and banqueting facilities and continual improvements to the stadium.

3.122 Beamish Museum is working with communities across the north east on the new 1950s Town project, which will see the living museum grow. People will be able to go back to a time in living memory, the 1950s, and share memories of what life was like. They will also be able to tell a more complete story of the 1820s, the foundation period of the industrial era. By 2021, they plan to attract 100,000 more visitors to the region annually and create 95 permanent jobs and 50 apprenticeships. Beamish has initial support from the Heritage Lottery Fund (HLF) and an announcement on a £10.75million grant for the Remaking Beamish project is due in the coming weeks. The 1950s town houses, shops, cafe, cinema, police house and recreation area are included in the plans for the 1950s Town.

Sports Facilities

3.123 The towns leisure centre has recently re-opened following some refurbishment works, any further dedicated projects relating to sports facilities in the town will be considered in the preparation of the masterplan.

Green Infrastructure

3.124 Open Spaces: In this area there is a large supply of informal open space but a shortage of formal parks and gardens. Playing pitches are quantitatively lacking but the playing pitch strategy found that in relation to the number of teams, provision was adequate.

3.125 Habitats: Typical habitats which occur in the area include Ancient Semi-Natural Woodland, examples include Whitehill Hall Woods Local Wildlife Site, Lowland Heath at Waldrige Fell Site of Special Scientific Interest and species-rich grasslands for example at Daisy Hill. The River Wear Trust has also undertaken riparian habitat improvements along Twizzel Burn.

3.126 For more information on priorities for implementation and appropriateness, please refer to the Strategic Green Infrastructure Framework; Biodiversity Action Plan held by the North East England Nature Partnership <http://neenp.org.uk/>; and Durham Landscape Character Assessment <http://www.durhamlandscape.info/article/10056/The-Durham-Landscape>

North West Durham

Travel Patterns in North West Durham from Main Settlements

3.127 According to Census data (2011),^(v) of all the areas in County Durham, North West Durham has the second highest level of County Durham (internal trips) as a proportion of both journeys originating in the area and those terminating in it - 71% and 79% respectively.

Walking and Cycling

3.128 Access from the north west to all employment areas is good with Consett especially being a hub for cycling routes. The Coast 2 Coast cycle route provides traffic free travel and there are opportunities for improved provision from this area with investment.

Bus

3.129 There are bus stations at Consett and Stanley each with 26 scheduled departures per hour. Passenger areas at these bus stations are enclosed with automatic doors to the bus stands. There is seating within the passenger concourse, real time information displays as well as printed timetable information and toilet facilities.

3.130 The location of new developments has a significant influence on travel patterns and the degree to which they can be effectively served by commercially successful bus services. An initial assessment of sites with potential for residential development has shown many have inherently strong scope for accessibility by bus services, and this has influenced the selection of sites for the County Durham Plan.

Highways

3.131 A new road linking Leadgate to Villa Real was opened in 2016, improving journeys for motorists and improving the public realm between Consett and Leadgate. The aim was to boost local businesses by improving traffic flow in the area and the demolition of the old railway bridge has also removed ongoing maintenance costs

3.132 In Consett, works at the A692/A693 to construct a roundabout to replace the existing junction at the east of Leadgate have been highlighted, however, funding for this has not been approved. In addition, two schemes have also been highlighted in the Stanley area at the A693/C11 to improve the junction layout and traffic signals and within Front Street to improve pedestrian movements and carriage realignments. Funding for these works have not been approved and will be subject to future funding bids.

Broadband

3.133 Factors that affect broadband quality include the distance of the line from the telephone exchange serving it, the gauge and quality of the wires or cable, the number of connections on the line between the exchange and the premises, interference from radios or electrical equipment, and the quality of the equipment customers use. Although the internet can be accessed wirelessly in some locations, broadband is traditionally delivered through wired and fibre optic networks.

v County Durham Travel Patterns, Durham County Council, 2011 Census Data Analysis

3.134 As a result of the Digital Durham project supported by the Department for Culture, Media and Sport, local authorities and British Telecom, most areas within North Durham should experience an improvement in the quality and speed of broadband services through the roll out of fibre services.

Water Management

3.135 Consett is served by three STWs. There has been recent investment in the main STW at Ebchester as part of AMP5 and this resolved most capacity issues in the Consett area providing headroom for around 2,500 new homes. Because of the extra capacity provided as part of major capital works at the main Consett STW, NWL do not anticipate any issues with receiving flows from the major sites in Consett.

3.136 However, smaller STWs at Crookhall and Knitsley STW^(vi) (serving Delves Lane) would have reached capacity in 2018/19 and in 2025/26 respectively according to the Water Cycle Study. Therefore, at Knitsley, there is a work currently on site to upgrade filters to maintain site compliance and headroom exists for housing up to 2025/26. For Crookhall a feasibility study has been completed and a scheme is now being delivered to ensure that capacity is in place before 2018/19.

3.137 Stanley - Recent Investment at Hustledown (South Stanley) has resolved capacity problems in this area of Stanley. However, the other main STW serving Stanley at East Tanfield is above headroom now so development in this catchment will need to be managed through the phasing of housing allocations.

3.138 Funding to upgrade East Tanfield STW has been allocated as part of AMP6. This work should be completed by 2020.

3.139 Fluvial Flooding: Flood risk has been identified in settlements along the Derwent and Twizell Burn in South Stanley.

Surface Water

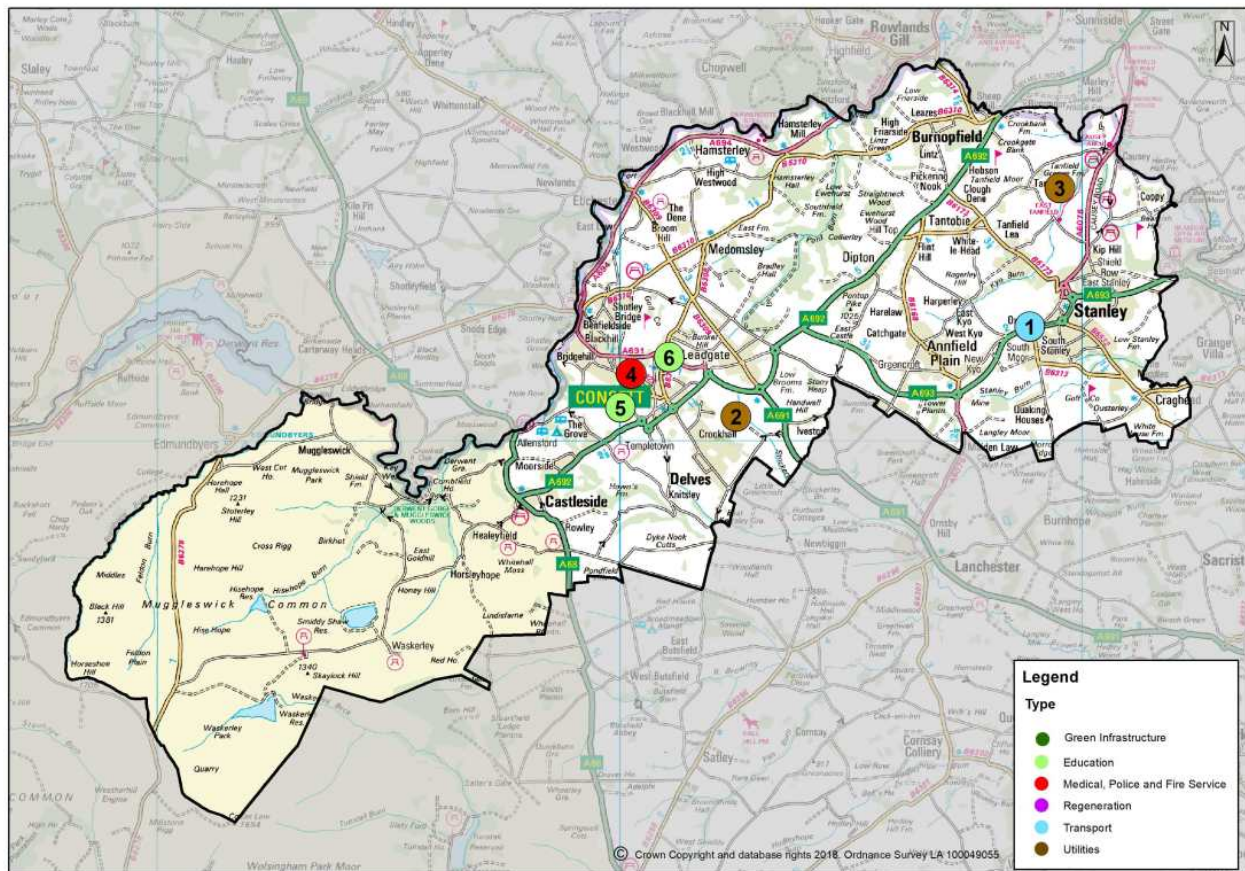
3.140 New developments present the best opportunities to manage the risk of surface water flooding, particularly the development of combined sewer networks. NWL have done an initial assessment of the foul and surface water drainage networks across the allocated sites in North Durham. Results show that surface water will need to be carefully managed at the majority of sites in North West Durham. The application of the water management and water infrastructure policies of the CDP will be crucial to managing flood risk.

Town Centres

3.141 Consett and Stanley town centres currently have a rolling programme of Targeted Business Improvements (TBI) which is focused on supporting town centre businesses, targeting derelict and underused premises, new business enterprise and private sector investment. The council has dedicated [masterplans](#) for both towns which contains further information on specific regeneration programmes and initiatives.

vi located within the Central Monitoring Area

Picture 2



GP Surgeries and Health Care

3.142 Stanley has a new primary health care facility but there is a demand for extra consulting space in Consett as a result of existing commitments and new sites. The Council will continue to engage with the local Clinical Commissioning Group and NHS Property Services regarding the possible impact from developments on service provision.

3.143 It is important to acknowledge that NHS England in Durham, Darlington and Tees locality currently do not have any funds available for new investments in general practice premises. Therefore, increases in demand will need to be managed within existing facilities, there is some scope for this given that many surgeries currently only operate weekday office hours. Healthcare infrastructure is an expensive resource and increasingly will need to be used as fully as possible to meet demand and population growth. If additional funds can be identified as part of the planning process to support extending current or new facilities and services this can contribute towards mitigation, however, this does not address any long-term revenue implications or gaps between securing additional revenue funding.

School Places

3.144 The proposed housing allocation in the Consett area will have an impact on pupil numbers within the area with appropriate mitigation being needed to be provided. As such the council's [Developer Contributions for Education Provision policy](#) will be relevant. Initial forecasts indicate that a new build 2 form entry primary school or equivalent classrooms

and 4 secondary classrooms will be required within the area. The secondary element only covers general teaching classrooms required, it is possible that subject specific rooms for science, art, design and technology etc. maybe needed and this will need to be discussed with the pupil place planning team at the council.

Green Infrastructure

3.145 Open Spaces: In this area there is a large supply of informal open space but a shortage of formal parks and gardens. Playing pitches are quantitatively lacking but the playing pitch strategy found that in relation to the number of teams, provision was adequate.

3.146 Habitats: Typical habitats within this area include lowland heath, species-rich brownfield sites around Annfield Plain, scattered Ancient Semi-Natural Woodland including Pont Burn Wood Local Wildlife Site, and Westlaw Wood, and various upland habitats, including Heath, wet flushes and Juniper Woodland at Muggleswick Common (Muggleswick, Stanhope & Edmundbyers Commons and Blanchland Moor Sites of Sites of Special Scientific Interest).

3.147 For more information on priorities for implementation and appropriateness, please refer to the Strategic Green Infrastructure Framework; Biodiversity Action Plan held by the North East England Nature Partnership <http://neenp.org.uk/>; and Durham Landscape Character Assessment <http://www.durhamlandscape.info/article/10056/The-Durham-Landscape>

Durham City

Travel Patterns in Durham City from Main Settlements

3.148 According to Census data (2011),^(vii), commuter inflows into Durham City are far greater than outflows.

3.149 Durham City has the largest working population of all settlements in County Durham and is also the highest attractor of work trips in the county when compared with all the other settlements in the county - 21% of all internal county trips having the city as their destination. In addition, Durham City is also the most popular destination for 8 of the 11 other largest settlements in the county.

3.150 It also has the highest percentage of cross boundary trips with 25% of all cross boundary trips into the county being into Durham City. Despite the significant in-flows into the city, Durham City also has a high rate of trip retention with 58% of work trips staying within the area. This is significant as journeys over shorter distances are more likely to travel by a sustainable mode or be receptive to sustainable transport initiatives^(viii). Compared to other settlements in the county, Durham City is the only settlement where sustainable commuter trips rival the numbers of private vehicle trips, with over 40% of trips within the area (zone) being made by a sustainable method.

Walking and Cycling Infrastructure

3.151 Ongoing investment in walking and cycling infrastructure in Central Durham is occurring through a number of specific schemes as part of Local Transport Plan funding. In recent years, there have been many improvements for walking and cycling such as the resurfacing of Frankland Lane in the north of the city, the widening of the footway and creation of a separate cycle path at Leazes Pelaw Lane, surfacing routes around the riverbanks and across the city, improving walking and cycling access to the rail station, creating a shared use path alongside the A167 between the Cock of the North roundabout and the Honest Lawyer near Croxdale in the west of the city (these works have contributed to work to deliver the Great North Cycle Way in this part of County Durham) and on the A690 between West Rainton and Carville in the east of the city.

3.152 Current schemes of note include improved cycle parking throughout the city, the re-routing of the National Cycle Network (NCN) 14 through Durham City and the renewal of the cycle routes and as part of the Great North Cycleway, the cycle route on the A167 from the Cock of the North roundabout to Millhill Lane.

3.153 Modal shift in this area is a priority for the council and walking and cycling routes are in the process of being designated in Durham City and these will help determine future priorities for investment through further feasibility work and the delivery of projects such as those outlined in the Durham City Transport Delivery Plan 2019-35 and the Strategic Cycling and Walking County Durham Delivery Plan 2018-28.

vii County Durham Travel Patterns, Durham County Council, 2011 Census Data Analysis
viii Creating Growth, Cutting Carbon – Making Sustainable Local Transport Happen, DfT

Rail Network

3.154 Durham Station (2.62m passenger journeys per annum in 16/17) is a major asset for the county given its proximity to the Aykley Heads strategic employment site, Durham University and the World Heritage Site. The station performs a strategic role and is County Durham's main access to:

- International gateways such as Newcastle and Manchester airports;
- Key employment and financial centres along the ECML route such as London, Edinburgh and York; and
- TransPennine/Cross Country corridors to urban centres in West Yorkshire, the North West and West Midlands.

3.155 It also provides a commuter and leisure service to/from Newcastle, Chester-le-Street and Darlington that is therefore crucial for residents making local trips. The station has a key role to play in the vision in the County Durham Plan as it will help provide more and better jobs for Durham City because of its strategic links to regional, national and international gateways and employment centres.

3.156 Despite impressive passenger journey numbers (ie annual numbers are higher than Darlington), this essential gateway, is currently constrained from growth. Passenger services north of York are 'flighted', ie grouped according to performance characteristics, which maximises track capacity but leads to irregular arrivals and departures at Durham. The council continues to lobby for an even interval service of one train every 15 minutes which could be achieved by the existing quantum of services and would provide a 'turn up and go' level of service.

3.157 LNER have announced that as part of their franchise, after the InterCity Express Programme (IEP) trains are introduced from 2018, Durham will have two trains per hour to London and will regain a regular East Coast franchise service to Edinburgh. While this is positive, it is evidence that the rail paths to and from Durham are constantly having to re-negotiate. There is an expectation that IEP trains will require longer platforms and the council will be working with LNER and Network Rail to facilitate this work. HS2 will introduce yet further demands on ECML capacity. There have been reassurances that classic network services will be retained following introduction of HS2.

3.158 The council has contributed significantly to two phases of redevelopment of Durham station transforming unused buildings and facilitating the removal of substandard structures and installation of lifts. Outstanding work to be completed by franchisee LNER includes transforming the subway between the platforms. The council have recently contributed to enhanced cycle and walking access from the Aykley Heads site with improved signage. This will contribute to achieving modal shift away from cars in Durham City, which is one of the key policy objectives of the CDP.

Bus

3.159 The existing Durham bus station comprises a covered passenger concourse with 11 stands and 67 departures per weekday daytime hour. There are real time and printed information displays within the bus station. Two stands on North Road accommodate services that currently do not pass through the bus station and other key interchanges exist at Milburngate (3 stands) and Leazes Bowl (2 stands).

3.160 The location of new developments has a significant influence on travel patterns and the degree to which they can be effectively served by commercially successful bus services. An initial assessment of sites with potential for residential development has shown many have inherently strong scope for accessibility by bus services, and this has influenced the selection of sites for the CDP as part of the sustainability appraisal of sites. Sniperley Park is an example of a proposed residential allocation in Durham City that would offer a good level of bus accessibility as its situated close to key bus corridors and a major park and ride site.

Aykley Heads Employment Site - Public Transport Accessibility

3.161 The site identified for employment lies adjacent to a main bus corridor, providing a high level of access by bus services. It is also within a walk range of Durham railway station. This will support the increased modal share for more environmentally sustainable travel that underpins the plan, particularly in central Durham. Accessibility modelling shows 67% of current County Durham households are within 60 minutes door to door bus travel of the main Aykley Heads site, which currently is served by 25 buses per hour during Monday to Saturday daytime, plus additional peak time services. Further development of services is expected due to the new demands for travel arising from the increased employment and the new housing allocations around Durham, which will increase the accessibility further.

Highways

~~Strategic Road Network – Junction 62~~

~~At Junction 62 of the A1(M), road safety improvements related to existing issues and capacity enhancement measures are proposed to facilitate wider growth in the Durham City area. Junction 62 is a key junction, connecting Durham City with the A1(M), Sunderland and the wider region. Provisional funding has been made available from NECA for delivery of the Junction 62 scheme in 2019/20, subject to a full business case being produced.~~

Principal/Local Road Network

3.162 One of the biggest assets of Durham City is its built heritage and historic environment. However this can also be a weakness, with limited space for people and vehicles. Within Durham City, the highway network currently experiences congestion and delay especially in the peak hour periods as vast amounts of traffic seek to cross the constrained city centre. This lack of space is nowhere more visible than in the crossing of the River Wear on the A690.

3.163 This link crosses the River Wear at Milburngate Bridge, which now accommodates over 40,000 vehicles per day during the working week^(ix) and approximately 14 million in total for a year. Furthermore, data from 2015^(x) reveals that 33-36% of trips into the city are by vehicles that have no origin or destination in the city and this through traffic uses up limited highway space in the city and is a major factor in peak hour congestion.

3.164 The CDP presents a transport delivery plan for Durham City which seeks to tackle this peak hour congestion issue. The construction of the Western Relief Road to the west of the A167 will create new space for traffic, improve the road network on the western side of the City and enable employment and housing growth. The Durham City Sustainable Transport Delivery Plan 2019-35 is a complimentary plan that proposes an integrated and comprehensive transport plan for the City that seeks improvements to walking, cycling and public transport corridors in the city centre together with a new Northern Relief Road.

3.165 The Northern Relief Road as part of the wider draft DC STDP will displace through traffic away from the city centre and create more space for improving conditions for sustainable modes. More detail of this plan can be found in Policy 24 of the CDP. These and other sustainable transport improvements are set out in the Investment schedule at the end of the Durham City section. All the transport network improvements that can help the city have a sustainable transport network for the life time of the CDP.

Durham City Transport Interventions

3.166 In order to provide a transport network that can deal with increasing development and populations, a number of interventions have been proposed in order to reduce through traffic in the city centre and to support modal shift to sustainable forms of transport and to improve the environment in Durham city centre.

3.167 The wider transport plan for the city is articulated fully in the DCSTDP but the IDP has identified some of the specific projects that will complement the sustainable transport plan for the city.

3.168 The proposals will be implemented in coordination with the delivery of key development sites and major highway schemes. We have also set out some of the key aspirations coming out of the DCSTDP. However, its important to stress that these proposals are subject to further detailed design, funding bids and consultation. For the purposes of developing an IDP, provisional details are set out below with latest possible financial information contained at the end of this chapter.

1. Milburngate Bridge Improvements - Partial removal of existing highway capacity and cycling/pedestrian improvements
2. New Inn Junction Improvements - Improvements to traffic lights at the New Inn
3. Church Street Improvements - Improvements to pedestrian access at Church Street
4. Durham City Bus Station - Durham City bus station improvements

ix This figure was calculated from taking average daily flows on the Bridge in 2015.

x Durham City Model Rebase - Review of 2015 Traffic Data & Key Trends Analysis, July 2016

5. Re-routing of National Cycle Network - Re-route of national cycling network through Durham City
6. Park and Ride (Durham City West) - Creation of new park and ride site for Durham City
7. Park and Ride (Belmont) - Extension to current park and ride facilities
8. Park and Ride (Sniperley) - Extension to current park and ride facilities
9. Western Relief Road - New relief road linking the current B6302 Broom Lane at Stone Bridge to the A691 adjacent to Sniperley Park & Ride
10. Stonebridge Roundabout Improvements - Improvements to the roundabout and linking roads relating to the introduction of the Western Relief Road
11. Neville's Cross (A167) to Sniperley - Improvement to pedestrian crossing facilities along this stretch of the A167 - Linked to Housing Sites & WRR
12. Trouts Lane Roundabout (B6532) - Replacement of B6532 junction with Trouts Lane and Potterhouse Lane with a roundabout. This will be directly linked to the development of housing Sites and WRR
13. Trout Lane Roundabout (A691) - Construction of a roundabout at the junction of the A691 and Trout Lane. Linked to the development of Housing sites and WRR
14. Potters Lane - Potters Lane road widening
15. Northern Relief Road - New Relief Road - New road linking the current Roundabout (near to Arnison Retail Centre) to the A690 at Belmont (south of A1 Junction 62 Interchange)
16. Pity Me (A167) Roundabout Improvements - Linked to the development of the Northern Relief Road
17. Arnison Roundabout Improvements - Capacity improvements to the roundabout for predicted traffic increase
18. Dryburn Road (B6532) to Aykley heads roundabout - Walking and cycling Improvements from housing sites to Aykley Heads employment site
19. Sherburn Road Retail Link Road - Link Road proposed to relieve congestion on Dragon Lane and in Dragonville retail area

Broadband

3.169 Factors that affect broadband quality include the distance of the line from the telephone exchange serving it, the gauge and quality of the wires or cable, the number of connections on the line between the exchange and the premises, interference from radios

or electrical equipment, and the quality of the equipment customers use. Although the internet can be accessed wirelessly in some locations, broadband is traditionally delivered through wired and fibre optic networks.

3.170 As a result of the Digital Durham project supported by the Department for Culture, Media, and Sport, local authorities and British Telecom most areas within Central Durham should experience an improvement in the quality and speed of broadband services through the roll out of fibre services.

Water Management

3.171 According to the Water Cycle Study completed in 2012, four of the five STWs serving Durham City will reach capacity before 2020 based on current housing projections. Therefore, significant investment is required from NWL in AMP6 to provide adequate headroom for development to proceed. Funding to upgrade Barkers Haugh has now been confirmed as part of AMP6. This work should be completed by 2020.

3.172 However, in order to accommodate foul flows from the proposed urban extensions that would normally drain to other STW's in Durham City, The council are working in partnership with NWL and the EA to complete a drainage plan for the city. This would effectively strip surface water from the existing drainage system and also channel clean water into existing watercourses to improve the water quality in north Durham. This work is ongoing but will ultimately complement the development of the housing sites in Durham City while helping to reduce flood risk outside of the urban extension.

3.173 In addition, a funding and/or a phasing strategy will be required for the sites at Sniperley Park and Sherburn Road.

Surface Water and Flooding

3.174 New developments present the best opportunities to manage the risk of surface water flooding, particularly the development of combined sewer networks. NWL have done an initial assessment of the foul and surface water drainage networks across the allocated sites in Central Durham. Results show that surface water will need to be carefully managed at the majority of sites in Central Durham. The application of the water management and water infrastructure policies of the CDP will be crucial to managing flood risk.

Electrical Supply

Initial discussions with Northern Powergrid have identified that the existing high voltage underground distribution system at Sniperley Park in Durham City would need to be extended. In addition a ground mounted substation would need to be installed, along with underground low voltage distribution cables through out the site. It is also likely that several EHV and HV feeders passing through the site would need to be diverted. These works are anticipated to cost in the region of £4,300,000. In addition it has been indicated that the existing infrastructure could need to be diverted and this is anticipated to cost in the region of £7,150,000.

Similar discussions have also taken place regarding the Sherburn Road site in Durham City where the existing high voltage underground distribution system would need to be extended. In addition a ground mounted substation would need to be installed, along with underground low voltage distribution cables through out the site. These works are anticipated to cost in the region of £763,000.

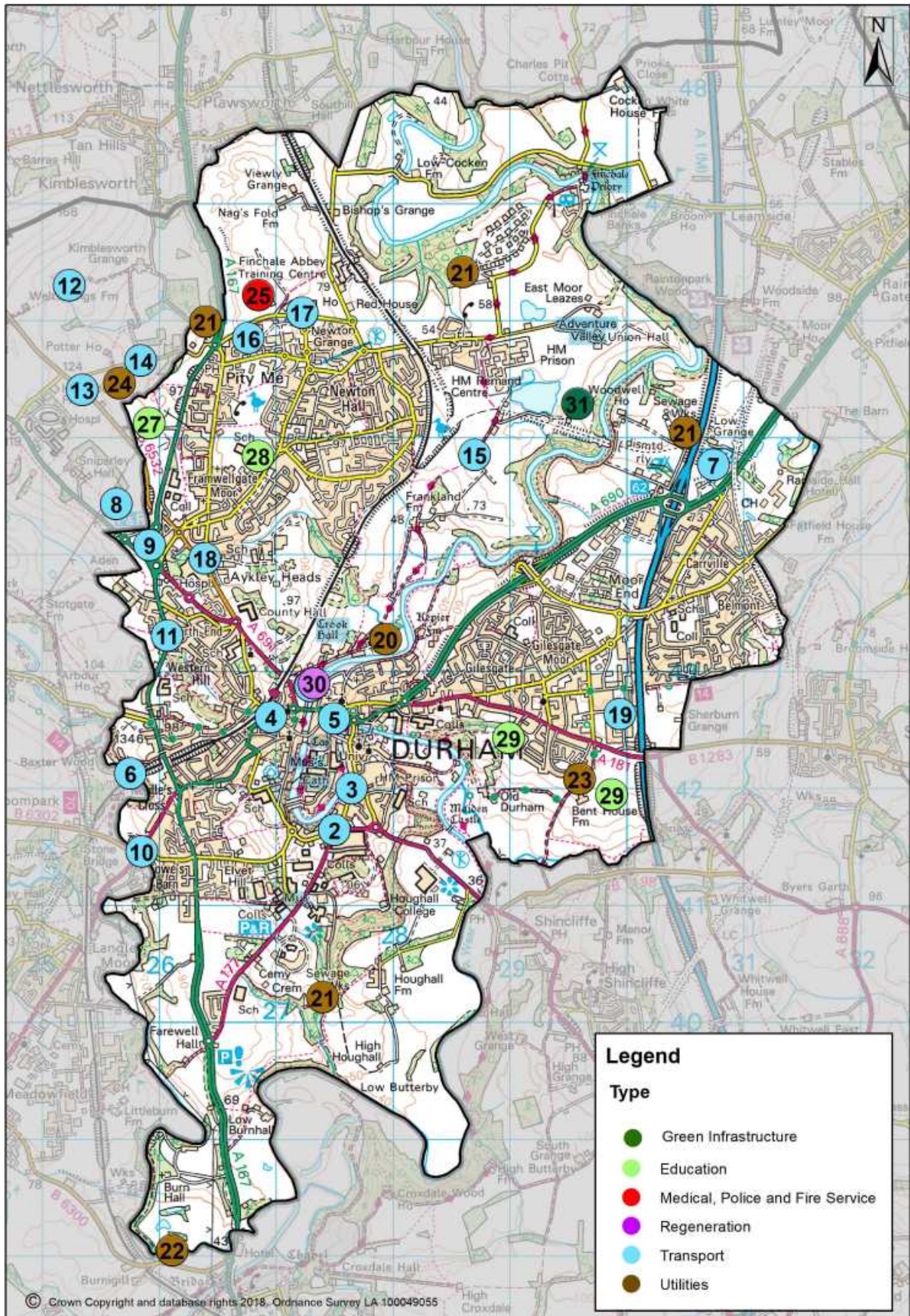
Durham City

3.175 Durham City is identified as an asset, not just for the county but also for the whole of the North East, but one which is currently underutilised. The city has a distinctive offer with its Castle and Cathedral World Heritage Site and its top-level University. However, the limited scale of the city centre currently prevents it from playing a wider sub-regional role as a strong centre for retail, tourism and business. Although around one third of the county's overall employment is within the city, around 45% of these jobs are within the public sector. The Council's vision aims to achieve significant private sector growth; however, whilst Durham's tourism economy is growing, it still has some way to go to compete with comparable destinations such as York, Chester and Lincoln. The city needs a critical mass of employment, population and visitors to act as a driver for economic growth. It is also important that the city's housing offer complements this growth and continues to provide a mixture of housing for its population whilst meeting new demands.

3.176 A key redevelopment to help achieve this vision is the intension to redevelop Aykley Heads as a Strategic Employment Site. This will create a new and unique business location for the North East, providing approximately 4,000 jobs and over 700,000 sq ft of office development alongside a mix of other uses. Successful development of the site relies on improving surrounding housing and transport to ensure the infrastructure is capable of facilitating the proposed level of development and economic growth.

3.177 The private sector led redevelopment of the Milburngate and Walkergate riverside is ongoing, with the Freemans Reach office development now complete, retaining more than 1,200 jobs in the city centre. This is complemented by a public realm space featuring a new café/restaurant and also provide an improved arrival point for coaches transporting visitors to the city. The Milburngate House development will provide approximately 600,000 sq. ft. of mixed use floor space incorporating offices, restaurants, shops, leisure facilities and approximately 400 new homes. A planning application for redevelopment has now been submitted. Works have also now commenced on the redevelopment of The Gates into a mixed use retail and leisure development within the North Road area of the city.

Picture 3



GP Surgeries and Health Care

3.178 The proposed housing for Durham City could increase pressure on all practices in Durham City; they have varied ability to absorb additional patients into their existing premises. The Council will continue to engage with the local Clinical Commissioning Group and NHS Property Services regarding the possible impact from developments on service provision and any appropriate mitigation.

3.179 It is important to acknowledge that NHS England in Durham, Darlington and Tees locality currently do not have any funds available for new investments in general practice premises. Therefore, increases in demand will need to be managed within existing facilities, there is some scope for this given that many surgeries currently only operate weekday office hours. Healthcare infrastructure is an expensive resource and increasingly will need to be used as fully as possible to meet demand and population growth. If additional funds can be identified as part of the planning process to support extending current or new facilities and services this can contribute towards mitigation, however, this does not address any long-term revenue implications or gaps between securing additional revenue funding.

School Places

3.180 There is limited spare capacity in primary school provision in Durham City, current housing allocations and pupil forecasts suggest additional places are required over the next 5 to 10 years. As such the council's [Developer Contributions for Education Provision policy](#) will be relevant and initial forecasts indicate that 2 primary and 1 secondary classrooms will be required within the area. Some villages around the city may also require extra places.

3.181 Based on the proposed housing allocation, the following mitigation is anticipated;

- New build 2.5 form entry (or equivalent classrooms) primary school in the Sniperley Park area of the city;
- Replacement 1 form entry (or equivalent classrooms) primary school at Laurel Avenue;
- 5 additional secondary classrooms will be required across the city; and
- 2 additional secondary classrooms will be required in the Belmont area.

3.182 The secondary element only covers general teaching classrooms required, it is possible that subject specific rooms for science, art, design and technology etc. maybe needed and this will need to be discussed with the pupil place planning team at the council.

Visitor Economy

3.183 Durham City attracts 4.2m visitors per year which helps to contribute to over 2,600 jobs and provide an economic value of nearly £200m. The visitor profile highlights that 90% of visitors are day visitors that account for 52% of the expenditure with the 10% overnight visitors accounting for nearly £100m of the expenditure.

3.184 Durham World Heritage Site (Durham Cathedral and Castle) was inscribed on the World Heritage List by UNESCO in 1986 and is a significant visitor attraction with nearly 640,000 visitors per year. Durham Cathedral has invested in developments which has transformed how visitors enjoy the Cathedral and gain inspiration. Durham City currently lacks a dedicated conference facility with conferencing taking place across a range of the county's larger hotels. Demands for facilities have been demonstrated through research. The cost of creating a facility is currently prohibitive however there are possibilities of future developments at Emirates Riverside Cricket Ground or within the city.

Green Infrastructure

3.185 Open Space: Open Space: Durham's satellite settlements in the west of the central area have, in general, a good supply of open space. However, there are imbalances in provision, with a shortfall in parks and gardens. Durham City itself has a shortage of open space overall, with some deficiencies and no major oversupplies. However, sports space within the city area was adequate, partly because of the good facilities provided at the University.

3.186 Habitats: Broad leaved and Ancient Semi-Natural Woodland dominates the Durham City area, following the watercourses that feed into and out of the city. Small areas of semi-improved grasslands and scrub are interspersed within the woodlands.

For more information on priorities for implementation and appropriateness, please refer to the Strategic Green Infrastructure Framework; Biodiversity Action Plan held by the North East England Nature Partnership <http://neenp.org.uk/>; and Durham Landscape Character Assessment <http://www.durhamlandscape.info/article/10056/The-Durham-Landscape>

Central Durham

Travel Patterns in Central Durham from Main Settlements

3.187 According to Census data (2011),^(xi) Central Durham displays the lowest level of internal retention of journey to work trips with only 28% of out-commuting trips retained within this monitoring area. Therefore, Central Durham is an area that is dominated by out-commuting. Data shows that the majority of work journeys go from Central Durham into Durham City, with almost half (43%) of trips originating in Central Durham terminating in the city.

Walking and Cycling Infrastructure

3.188 Ongoing investment in walking and cycling infrastructure in Central Durham occurs through Local Transport Plan funding. In recent years, there has been improvements on the A690 between West Rainton and Carrville in the east of Durham City.

3.189 Modal shift in this area is a priority for the council and walking and cycling routes are in the process of being designated in Central Durham and these will help determine future priorities for investment. The Strategic Walking and Cycling County Durham Delivery Plan 2018-28 is proposing prioritising the cycling routes that are within 5 miles of Durham City centre.

Rail Network

3.190 There are no operational rail stations in this area of the County but most of the population will use Durham City station.

Bus

3.191 The location of new developments has a significant influence on travel patterns and the degree to which they can be effectively served by commercially successful bus services. An initial assessment of sites with potential for residential development has shown many have inherently strong scope for accessibility by bus services, and this has influenced the selection of sites for the County Durham Plan.

Highways

Strategic Road Network

On the basis of the employment and housing sites supplied to Highways England, the high level review of the evidence has concluded that it is likely that there will be a reduction in traffic demands at the SRN associated with the current Plan when compared to the 2014 Plan. ~~With Junction 61 and the area around 61 due to be completed in 2019, it is not anticipated that any capacity issues will be highlighted in the next round of SRN modelling. Works to junction 61 and the area around junction 61 are scheduled to be completed in 2019.~~

xi County Durham Travel Patterns, Durham County Council, 2011 Census Data Analysis

Junction 61 of the SRN

3.192 At Junction 61 of the A1(M) at Bowburn, there are some major improvements underway to enhance the capacity of this junction. In order to finance these enhancements, Durham County Council were successful in securing funding from Highways England and a private developer, as part of the Integra 61 planning application. There are also improvements to the safety and functioning of the access on the A688 and these will be completed in 2019.

Principal/Local Road Network

3.193 The proposals will be implemented in coordination with the delivery of key development sites and major highway schemes. All the respective proposals are subject to further detailed design, consultation although provisional details are set out below with latest financial information contained at the end of this chapter.

1. Junction 61 and A688 Bowburn Services Roundabout Improvements - Improve access to SRN and roundabout installation to access services from A688 and Integra 61

School Places

3.194 The proposed housing allocation in the Bearpark area will have an impact on pupil numbers with appropriate mitigation being needed to be provided. As such the councils [Developer Contributions for Education Provision policy](#) will be relevant and initial forecasts indicate that 3 primary classrooms will be required in the Bearpark area.

Broadband

3.195 Factors that affect broadband quality include the distance of the line from the telephone exchange serving it, the gauge and quality of the wires or cable, the number of connections on the line between the exchange and the premises, interference from radios or electrical equipment, and the quality of the equipment customers use. Although the internet can be accessed wirelessly in some locations, broadband is traditionally delivered through wired and fibre optic networks.

3.196 As a result of the Digital Durham project supported by the Department for Culture, Media, and Sport, local authorities and British Telecom most areas within Central Durham should experience an improvement in the quality and speed of broadband services through the roll out of fibre services.

Water Management

3.197 According to the Water Cycle Study, four of the five STWs serving Durham City and the Central Durham area will reach capacity before 2020 based on current housing projections. Therefore, significant investment is required from NWL in AMP6 to provide adequate headroom for development to proceed. Funding to upgrade Barkers Haugh has now been confirmed as part of AMP6. This work should be completed by 2020.

3.198 Baukers Haugh, Bearpark and Aldin Grange STW and Witton Gilbert STW are included in the business plan by NWL for upgrade in AMP6.

3.199 After detailed partnership work between DCC and NWL it was identified that the Browney STW that serves Durham City, Ushaw Moor, New Brancepeth, Langley Moor and Meadowfield will not require an upgrade as part of AMP6.

3.200 The STW at Knitsley (serving Delves Lane) will have reached capacity in 2025/26 according to the Water Cycle Study. Therefore, at Knitsley, there is a work currently on site to upgrade filters to maintain site compliance and headroom exists for housing up to 2025/26.

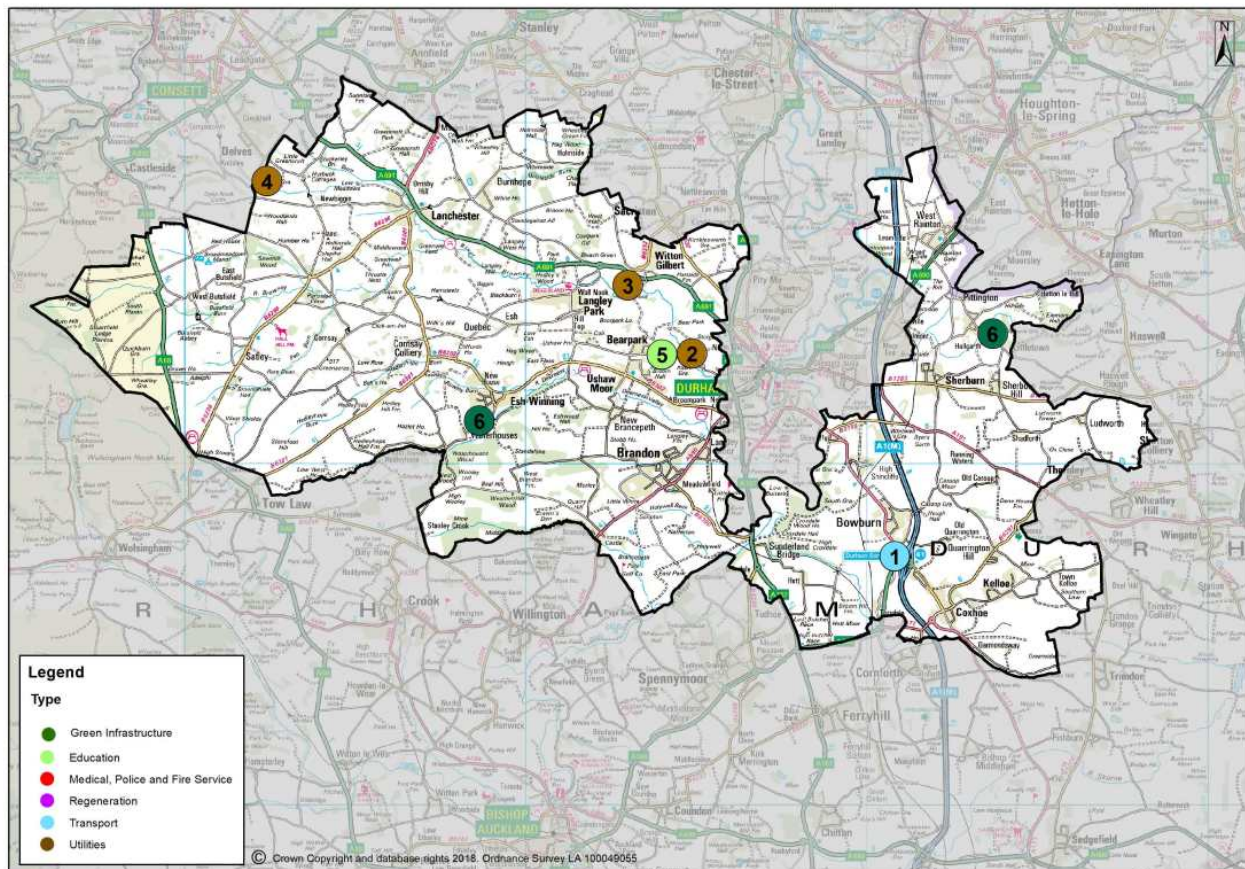
Surface Water and Flooding

3.201 New developments present the best opportunities to manage the risk of surface water flooding, particularly the development of combined sewer networks. NWL have done an initial assessment of the foul and surface water drainage networks across the allocated sites in Central Durham. Results show that surface water will need to be carefully managed at the majority of sites in Central Durham. The application of the water management and water infrastructure policies of the CDP will be crucial to managing flood risk.

3.202 The Strategic Flood Risk Assessment has identified existing flood risk in Lanchester and in settlements along the Browney, including Witton Gilbert where steep-sided catchments with poorly-draining soil present the risk of flash flooding.

3.203 A flood defence schemes has been identified in Witton Gilbert and Durham County Council are leading on the work in partnership with the EA. There is a need to address flood risk in Durham itself, possibly by new flood defences provided on site by site basis via a section 106 agreement.

Picture 4



Green Infrastructure

3.204 Open Space: Durham’s satellite settlements in the west of the central area have, in general, a good supply of open space. However, there are imbalances in provision, with a shortfall in parks and gardens. Durham City itself has a shortage of open space overall, with some deficiencies and no major oversupplies. However, sports space within the city area was adequate, partly because of the good facilities provided at the University.

3.205 Habitats: Priority Habitats tend to be along the river corridors of the Browney, Deerness and Wear, which converge on Durham City and contain woodlands and wetland. Other grassland and pond habitats are found in the immediate vicinity, including sites in the Wear corridor to the north of the city.

For more information on priorities for implementation and appropriateness, please refer to the Strategic Green Infrastructure Framework; Biodiversity Action Plan held by the North East England Nature Partnership <http://neep.org.uk/>; and Durham Landscape Character Assessment <http://www.durhamlandscape.info/article/10056/The-Durham-Landscape>

Mid Durham

Travel Patterns in Mid Durham from Main Settlements

3.206 According to Census data (2011),^(xii) mid Durham has the lowest percentage of movements to neighbouring authorities, it also attracts the lowest percentage. However, despite this high county retention rate of trips, its internal retention percentage is low, with just 38% of journeys originating in the area also terminating within it. It has a comparatively strong relationship with Durham City and excluding the two central areas (Durham City and central Durham), only north Durham (Chester-Le-Street) shows a higher proportion of trips terminating in Durham City (27% compared to 16%).

Walking and Cycling Infrastructure

3.207 The Rights of Way Improvement Plan and Cycling Strategy led to Spennymoor becoming an Access Prioritisation Area in Phase 2. This has resulted in significant path improvement schemes in the area. Spennymoor will also be included in the LCWIP Process and the network will be audited, assessed and improved. There is also a local aspiration to improve the multi-user route between Crook and Bishop Auckland.

Rail Network

There are no rail stations in this area.

Bus

3.208 The location of new developments has a significant influence on travel patterns and the degree to which they can be effectively served by commercially successful bus services. An initial assessment of sites with potential for residential development has shown many have inherently strong scope for accessibility by bus services, and this has influenced the selection of sites for the County Durham Plan.

Highways

Impact of SRN on Junction 59 and 60

3.209 As part of duty-to-cooperate, Highways England is working with DCC to establish the cumulative impact of the plan, including strategic development sites, at junctions 59 and 60 of the A1 (M). The most recent information indicates that proposed development close to these junctions is likely to be accommodated safely onto the SRN.

3.210 However, the impact on Junction 59 will be modelled as part of ongoing work between DCC, Highways England and Darlington Borough Council. Highways England will respond fully on these junctions.

Principal/Local Road Network

Improvements to Rushyford roundabout are planned in the medium term to improve capacity, particularly for northbound traffic. A funding bid has been submitted for this scheme.

xii County Durham Travel Patterns, Durham County Council, 2011 Census Data Analysis

3.211 Priorities for investment to highways and junctions are listed below.^(xiii)

Table 5 Mid Durham Highway Improvements Required

Delivery Area	Settlement	Highway Improvements Required
Mid Durham	Rushyford	<ul style="list-style-type: none"> A167 Rushyford roundabout improvements

Broadband

3.212 Factors that affect broadband quality include the distance of the line from the telephone exchange serving it, the gauge and quality of the wires or cable, the number of connections on the line between the exchange and the premises, interference from radios or electrical equipment, and the quality of the equipment customers use. Although the internet can be accessed wirelessly in some locations, broadband is traditionally delivered through wired and fibre optic networks.

3.213 As a result of the Digital Durham project supported by the Department for Culture, Media, and Sport, local authorities and British Telecom most areas within South Durham should experience an improvement in the quality and speed of broadband services through the roll out of fibre services.

Water Management

Tudhoe Mill serving Spennymoor has limited capacity but investment is currently underway, the work should be completed by the end of 2018.

Chilton and Windlestone STW serves Chilton and east Ferryhill and currently has limited capacity. Investment to upgrade Windlestone STW is underway and is expected to be completed by 2018.

Tow Law STW will reach headroom capacity in 2015/16 based on water cycle study housing projections. It has been identified as a candidate for investment in AMP6 .

Surface Water and Flooding

3.214 New developments present the best opportunities to manage the risk of surface water flooding, particularly the development of combined sewer networks. NWL have done an initial assessment of the foul and surface water drainage networks across the allocated sites in South Durham. Results show that surface water will need to be carefully managed at the majority of sites in South Durham. The application of the water management and water infrastructure policies of the CDP will be crucial to managing flood risk.

3.215 There are several areas of flood risk affecting towns in this area, these include areas around Crook, recent measures have reduced the level of risk. Measures to reduce or stabilise the level of flood risk could include channel maintenance and the storage of flood waters between Spennymoor and Willington.

xiii all LTP3 junction improvements are mapped on the physical infrastructure maps using yellow hexagons

Electricity Supply

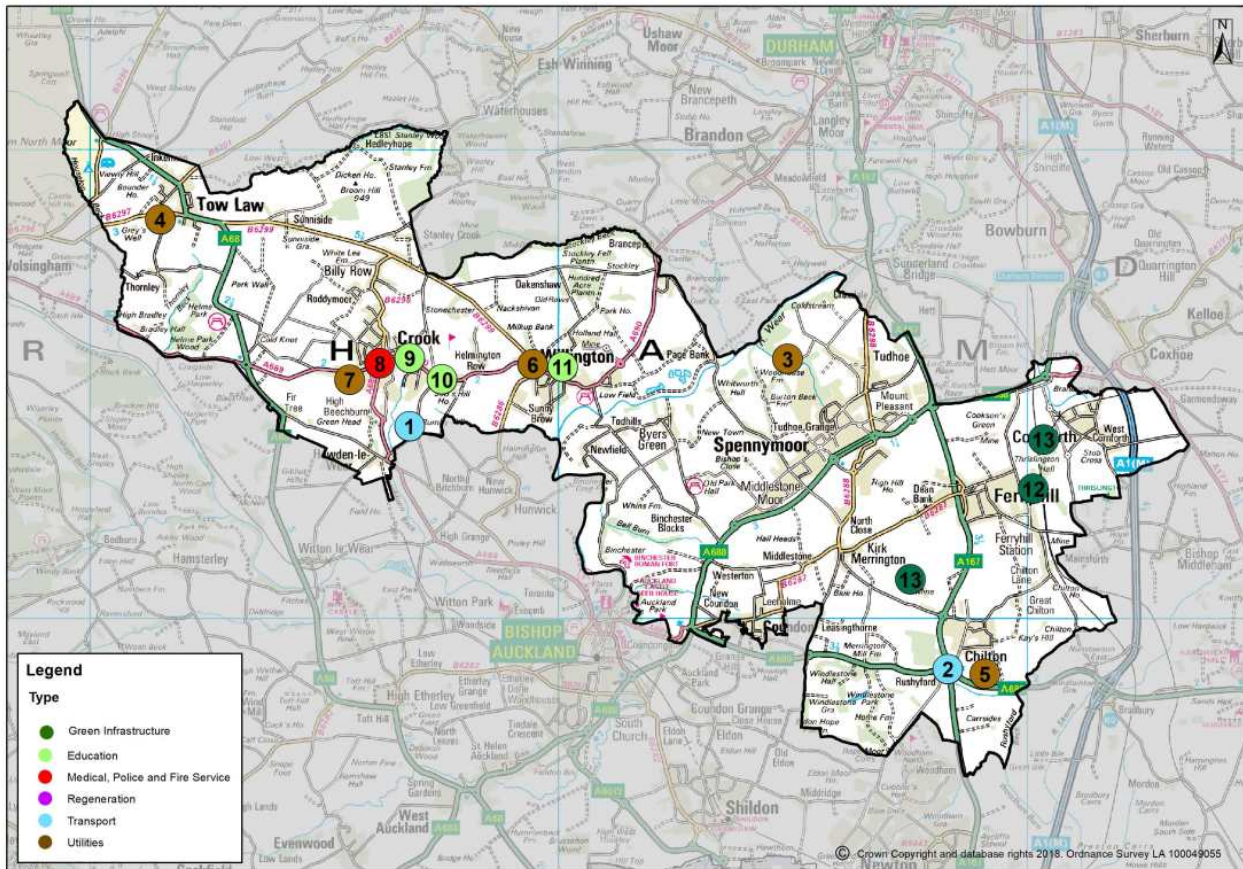
Initial discussions with Northern Powergrid have identified that the existing high voltage underground distribution system at the High West Road site in Crook would need to be extended. In addition a ground mounted substation would need to be installed, along with underground low voltage distribution cables through out the site. These works are anticipated to cost in the region of £768,000.

GP Surgeries and Health Care

3.216 There is currently adequate health care in these areas but additional housing may have implications for health care provision. The council will continue to engage with the local Clinical Commissioning Group and NHS Property Services regarding the possible impact from developments on service provision.

3.217 It is important to acknowledge that NHS England in Durham, Darlington and Tees locality currently do not have any funds available for new investments in general practice premises. Therefore, increases in demand will need to be managed within existing facilities, there is some scope for this given that many surgeries currently only operate weekday office hours. Healthcare infrastructure is an expensive resource and increasingly will need to be used as fully as possible to meet demand and population growth. If additional funds can be identified as part of the planning process to support extending current or new facilities and services this can contribute towards mitigation, however, this does not address any long-term revenue implications or gaps between securing additional revenue funding.

Picture 5



School Places

3.218 The proposed housing allocation in the Crook and Willington areas will have an impact on pupil numbers within these areas with appropriate mitigation being needed to be provided. As such the councils [Developer Contributions for Education Provision policy](#) will be relevant and initial forecasts indicate that proposed housing sites will need contribute towards 3 additional primary classrooms in the Crook area and 1 additional primary classroom in the Willington area. Contributions will also be required toward 3 additional secondary classrooms in the Willington area, this only covers general teaching classrooms and it is possible that subject specific rooms for science, art, design and technology etc. maybe needed and this will need to be discussed with the pupil place planning team at the council.

Green Infrastructure

3.219 Habitats: As in other parts of the county, the main semi-natural habitats tend to follow the river corridors in the areas around Crook and Willington. Of particular value is a large area of woodland, grasslands and wetlands (Rosa Shafto Woodland Local Wildlife Sites) which flow through from the centre of Spennymoor out to the River Wear in the north.

3.220 For more information on priorities for implementation and appropriateness, please refer to the Strategic Green Infrastructure Framework; Biodiversity Action Plan held by the North East England Nature Partnership <http://neenp.org.uk/>; and Durham Landscape Character Assessment <http://www.durhamlandscape.info/article/10056/The-Durham-Landscape>

South Durham

Travel Patterns in South Durham

3.221 According to Census data (2011),^(xiv) South Durham has a high level of county retention with 73% of journeys which originate in the area terminating somewhere within County Durham. However, in contrast to Mid Durham, a significant portion of trips produced by the area (67%) also terminate within the area. This is most likely due to the higher number of employment jobs, especially in Newton Aycliffe.

3.222 The total numbers working at Newton Aycliffe Industrial Estate is around 10,000 which is actually close to the total number of commuters in Newton Aycliffe itself. This number makes the employment centre comparable in jobs with Faverdale, Darlington and Nissan and its surrounding industrial estate. It highlights the fact that this was an important employment location even before Hitachi opened.

Walking and Cycling Infrastructure

3.223 There has been recent investment in the 'Locomotion Way', a 2 mile multi user route linking Shildon to Newton Aycliffe. Pedestrian and cycling improvements have recently been made around Heighington rail station linking in with the existing cycling network and improving links to the Hitachi site.

3.224 Walking and cycling routes will be designated in Shildon, Newton Aycliffe and Bishop Auckland as part of the Local Cycling and Walking Infrastructure Plan (LCWIP) process. These will help determine future priorities for investment and work on the Newton Aycliffe LCWIP has already begun. Future investment in walking and cycling routes linking housing growth sites such as at Copelaw at Newton Aycliffe and employment growth areas in Newton Aycliffe including the Hitachi site will be important. In addition, linked to and benefiting these developments, the Great North Cycleway will be important in future years. This route will link Blyth in Northumberland with Darlington in the Tees Valley and will travel north to south through the county alongside the A167. As a cross boundary route the Great North Cycleway will need to be planned and delivered in conjunction with Darlington Borough Council.

3.225 As part of Phase 3 of the Access Prioritisation Areas project (2015) Bishop Auckland, Shildon and Newton Aycliffe have become Access Prioritisation Areas and path improvements have been undertaken according to the priorities for greatest potential for improvement.

Rail Network

3.226 The Bishop Line is a major public transport asset running through a main travel to work corridor which connects the core economic area of South Durham containing the main towns of Bishop Auckland, Shildon and Newton Aycliffe providing a key gateway to Darlington, the Tees Valley and the ECML.

3.227 The Bishop Auckland to Darlington line (The Bishop Line) has stations at Bishop Auckland (118,742 passenger journeys per annum in 16/17); Shildon (51,994 passenger journeys per annum); Newton Aycliffe (61,994 passenger journeys per annum) and Heighington (18,958 passenger journeys per annum). The current train runs every two hours

xiv County Durham Travel Patterns, Durham County Council, 2011 Census Data Analysis

and is operated as part of the Northern Franchise. The council have successfully lobbied through Rail North for an increase to an hourly service in the new franchise by 2019 when resources become available.

3.228 The Bishop Line and the recent economic growth in the area presents a major opportunity for modal shift through the South Durham corridor. The established travel to work patterns, the Hitachi train assembly plant and University Technical College at Newton Aycliffe and the tourist attractions at Bishop Auckland will provide significant opportunities for growing passenger numbers and should increase the profile of the route.

3.229 Darlington Bank Top serves as the principal access point to the national rail network for large parts of south and east County Durham. The station is currently managed by Virgin Trains East Coast (VTEC) under their franchise and is the subject of a wider area MasterPlan by Tees Valley/Darlington Borough Council. There is also a key opportunity as part of TfNs Strategic Transport Plan to link the prime capabilities of advanced manufacturing and health innovation which is prevalent in the North East and Tees Valley by strengthening connections on the Bishop Line between Newton Aycliffe, Darlington and the ECML.

3.230 The Council welcomes investment in Darlington station in the Tees Valley and the economic benefits should spread to the adjoining rail corridor so the Bishop Line has better services to access major employment and tourist destinations such as Newton Aycliffe and Bishop Auckland.

3.231 The Bishop Line is designated as a Community Rail Service and DCC work with the Bishop Line Community Rail Partnership to promote the line in the community. The track is in the process of being renewed throughout and DCC will be lobbying for sectional running time reviews to identify opportunities to increase the line speed from the current 45mph.

3.232 Together with the Weardale Railway, the Bishop Line forms a strategic railway tourism corridor linking the Darlington Railway Museum, Locomotion at Shildon and Weardale heritage railway. The railway tourism corridor complements the development of a series of major tourism attractions at Bishop Auckland, including the Saxon Church, Binchester Roman Fort and the development of Auckland Palace Park.

Bus

3.233 The location of new developments has a significant influence on travel patterns and the degree to which they can be effectively served by commercially successful bus services. An initial assessment of sites with potential for residential development has shown many have inherently strong scope for accessibility by bus services, and this has influenced the selection of sites for the County Durham Plan.

Public Transport Accessibility to Forrest Park

3.234 The site identified for employment lies adjacent to a main bus corridor, currently served by 8 buses per hour during Monday to Saturday daytime. Provision is also being made for buses to penetrate the site to reduce the walking distance from stops on the A167. This will support the desired increased in modal share for more sustainable travel. Accessibility

modelling shows 18% of current County Durham households are within 60 minutes door to door bus travel of the site entrance; in addition many households outside the county are accessible in this time frame.

Highways

Impact of SRN on Junction 59

3.235 As part of duty-to-cooperate, the council is working with Highways England to establish the cumulative impact of the plan at junction 59 of the A1 (M). The most recent information indicates that proposed development close to these junctions is likely to be accommodated safely onto the SRN.

~~**3.236** However, the impact on Junction 59 will be modelled as part of ongoing work between DCC, Highways England and Darlington Borough Council. Highways England will respond fully on these junctions.~~

Principal/Local Road Network

3.237 Improvements to the local highway in South Durham include enabling work at Forrest Park and roundabout improvements at Rushyford on the A167.

3.238 Forrest Park - Hitachi is now operational and the council are keen to capitalise on their arrival and are now committed to delivering a complementary business park at the adjacent Forrest Park. To enable the delivery of Forrest Park (identified as a prestige employment site in the CDP), the council secured Local Growth Funding (LGF) and delivered key Infrastructure at the site including a new highway junction and major investment to deliver an additional 23MW of power supply to Forrest Park and the wider Aycliffe Business Park Area.

3.239 The council are in the process of securing funding to improve connectivity between the proposed Low Copelaw housing site and Newton Aycliffe. Specific improvements are planned at Ricknall Lane and Central Avenue to help with this issue.

Broadband

3.240 Factors that affect broadband quality include the distance of the line from the telephone exchange serving it, the gauge and quality of the wires or cable, the number of connections on the line between the exchange and the premises, interference from radios or electrical equipment, and the quality of the equipment customers use. Although the Internet can be accessed wirelessly in some locations, broadband is traditionally delivered through wired and fibre optic networks.

3.241 As a result of the Digital Durham project supported by the Department for Culture, Media, and Sport, local authorities and British Telecom, most areas within South Durham should experience an improvement in the quality and speed of broadband services through the roll out of fibre services.

Water Management

3.242 Headroom at the Aycliffe STW will reach capacity in 2020/21 based on current projections. Aycliffe is being upgraded as part of AMP 6. This work should be completed by 2020. A phasing strategy will be required for any development pre - 2020 to work within available capacity. There is currently headroom for 500 new dwellings to be built before the upgrade takes place. Flows from Hitachi employment site are minimal and will be acceptable.

Surface Water and Flooding

3.243 New developments present the best opportunities to manage the risk of surface water flooding, particularly the development of combined sewer networks. NWL have done an initial assessment of the foul and surface water drainage networks across the allocated sites in South Durham. Results show that surface water will need to be carefully managed at the majority of sites in South Durham. The application of the water management and water infrastructure policies of the CDP will be crucial to managing flood risk.

3.244 There are several areas of flood risk affecting towns in this area, these include Bishop Auckland, Aycliffe Village and areas of Newton Aycliffe at each end of the Woodham Burn. Recent measures have reduced the level of risk. There is an ongoing drainage project occurring at Cobblers Hall, Newton Aycliffe. Measures to reduce or stabilise the level of flood risk could include channel maintenance and the storage of flood waters in the Morden Carrs area.

Electrical Supply

Initial discussions with Northern Powergrid have identified that the existing high voltage underground distribution system at the Low Copelaw site in Newton Aycliffe would need to be extended. In addition a ground mounted substation would need to be installed, along with underground low voltage distribution cables through out the site. These works are anticipated to cost in the region of £1,040,000.

Town Centres

3.245 Bishop Auckland - the council is currently updating the public realm in the Market Place, following a £2.1M grant from the North East Local Enterprise Partnership. These works have supported the delivery of the Welcome Building and Observation Tower, which opened in autumn 2018. Work is ongoing developing a masterplan for the town, this will contain detailed information relating to specific regeneration projects for the town.

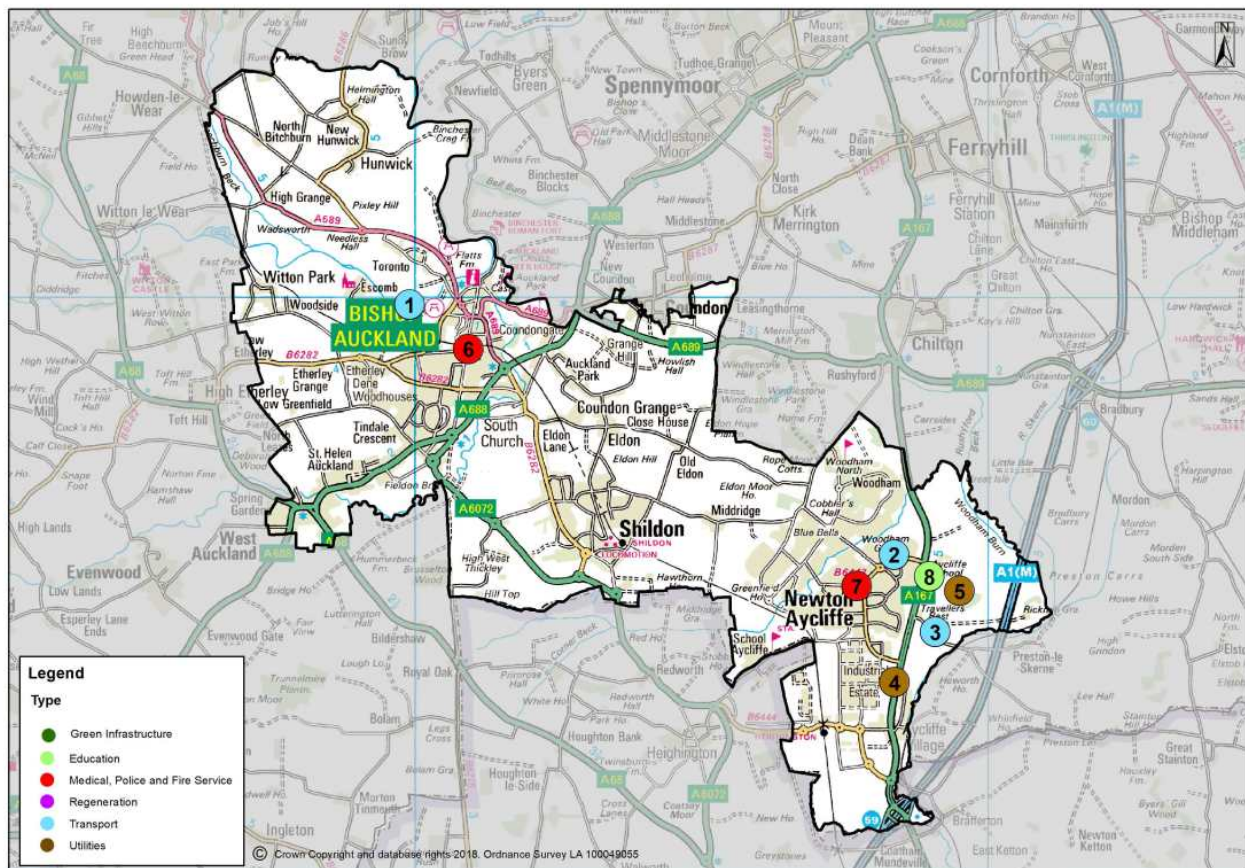
GP Surgeries and Health Care

There is currently adequate health care in these areas but additional housing may have implications for health care provision. However, additional housing could have impact in Bishop Auckland and Newton Aycliffe. The council will continue to engage with the local Clinical Commissioning Group and NHS Property Services regarding the possible impact from developments on service provision.

3.246 It is important to acknowledge that NHS England in Durham, Darlington and Tees locality currently do not have any funds available for new investments in general practice premises. Therefore, increases in demand will need to be managed within existing facilities,

there is some scope for this given that many surgeries currently only operate weekday office hours. Healthcare infrastructure is an expensive resource and increasingly will need to be used as fully as possible to meet demand and population growth. If additional funds can be identified as part of the planning process to support extending current or new facilities and services, this can contribute towards mitigation, however, this does not address any long-term revenue implications or gaps between securing additional revenue funding.

Picture 6



School Places

3.247 The proposed housing allocation in the Bishop Auckland and Newton Aycliffe areas will have an impact on pupil numbers within these areas with appropriate mitigation needed to be provided. As such the councils [Developer Contributions for Education Provision policy](#) will be relevant. Initial forecasts indicate that a new build 1 form entry primary school will be required in the Low Copelaw area of Newton Aycliffe.

Visitor Economy

3.248 The new Welcome Building and Observation Tower opened in October 2018 and the third season of Kynren was successfully held during summer of 2018. Auckland Castle is due to reopen in 2019 following an extensive restoration programme of works, along with the Spanish Art Gallery and the fourth season of Kynren. In order to support the anticipated

growth of visitors to the town, a second phase of car parking provision has been delivered and further infrastructure improvements are planned to improve the flow and capacity of traffic.

Green Infrastructure

3.249 Open Spaces: Newton Aycliffe has a large supply of open space, due to its new town layout. The picture elsewhere in the south is variable, in general towns have sufficient open space but there may be imbalances in typology, often there is a shortage of parks and gardens, the exceptions being Bishop Auckland which have some very large parks and gardens. The quantity of playing pitches was deemed to be adequate but the quality was sometimes poor.

3.250 Habitats: Remnant priority habitats tend to be more isolated around this part of the county where intensive farming and more developed semi-urban areas take up the majority of the landscape. The disused railway lines and watercourses (with associated riparian habitats) for example Woodham Burn, and the River Gaunless, form important green corridors through the urban centres, and link in with the surrounding countryside.

For more information on priorities for implementation and appropriateness, please refer to the Strategic Green Infrastructure Framework; Biodiversity Action Plan held by the North East England Nature Partnership <http://neenp.org.uk/>; and Durham Landscape Character Assessment <http://www.durhamlandscape.info/article/10056/The-Durham-Landscape>

South East Durham

Travel Patterns in South East Durham from Main Settlements

3.251 According to Census data (2011),^(xv) only 58% of the trips originating in South East Durham remain within the County boundary, the second lowest of any area in County Durham. Of these, only 35% remain within the area showing that this area exhibits substantial out-commuting travel patterns only Central Durham displays a lower level of internal retention.

3.252 Unsurprisingly, most cross boundary trips are going to Darlington and Stockton-on-Tees while within County Durham, most trips are directed to South Durham.

Walking and Cycling Infrastructure

3.253 As with other towns in the county, the cycling network planning process will be applied in Sedgefield and the network will be audited, assessed and improved according to the criteria. Works have been ongoing to create a shared us path from Sedgefield alongside Salters Lane through the villages to link at Coxhoe with the Limestone LinX routes. A safe route along the A177 corridor is a long term aspiration.

Rail Network

3.254 There are no stations within this area.

Bus

3.255 The location of new developments has a significant influence on travel patterns and the degree to which they can be effectively served by commercially successful bus services. An initial assessment of sites with potential for residential development has shown many have inherently strong scope for accessibility by bus services, and this has influenced the selection of sites for the County Durham Plan.

Highways

Impact of SRN on Junction 60

3.256 As part of duty-to-cooperate, the council are working with Highways England to establish the cumulative impact of the plan at junction 60 of the A1 (M). The most recent information indicates that proposed development close to this junction is likely to be accommodated safely onto the SRN.

3.257 However, the impact on Junction 60 will be modelled as part of ongoing work between DCC, Highways England and Darlington Borough Council. Highways England will respond fully on these junctions.

xv County Durham Travel Patterns, Durham County Council, 2011 Census Data Analysis

Principal/Local Road Network

3.258 NETPark - A new road is proposed at NETpark and is referred to in the IDP schedule as NETPark Phase 3 Infrastructure. This is a new spine road which will open up 13.2 hectares of developable land to the north of the existing science park. The construction will involve a new junction on the A177 about ½ mile from the NETPark main entrance.

Broadband

3.259 Factors that affect broadband quality include the distance of the line from the telephone exchange serving it, the gauge and quality of the wires or cable, the number of connections on the line between the exchange and the premises, interference from radios or electrical equipment, and the quality of the equipment customers use. Although the internet can be accessed wirelessly in some locations, broadband is traditionally delivered through wired and fibre optic networks.

3.260 As a result of the Digital Durham project supported by the Department for Culture, Media, and Sport, local authorities and British Telecom most areas within South East Durham should experience an improvement in the quality and speed of broadband services through the roll out of fibre services.

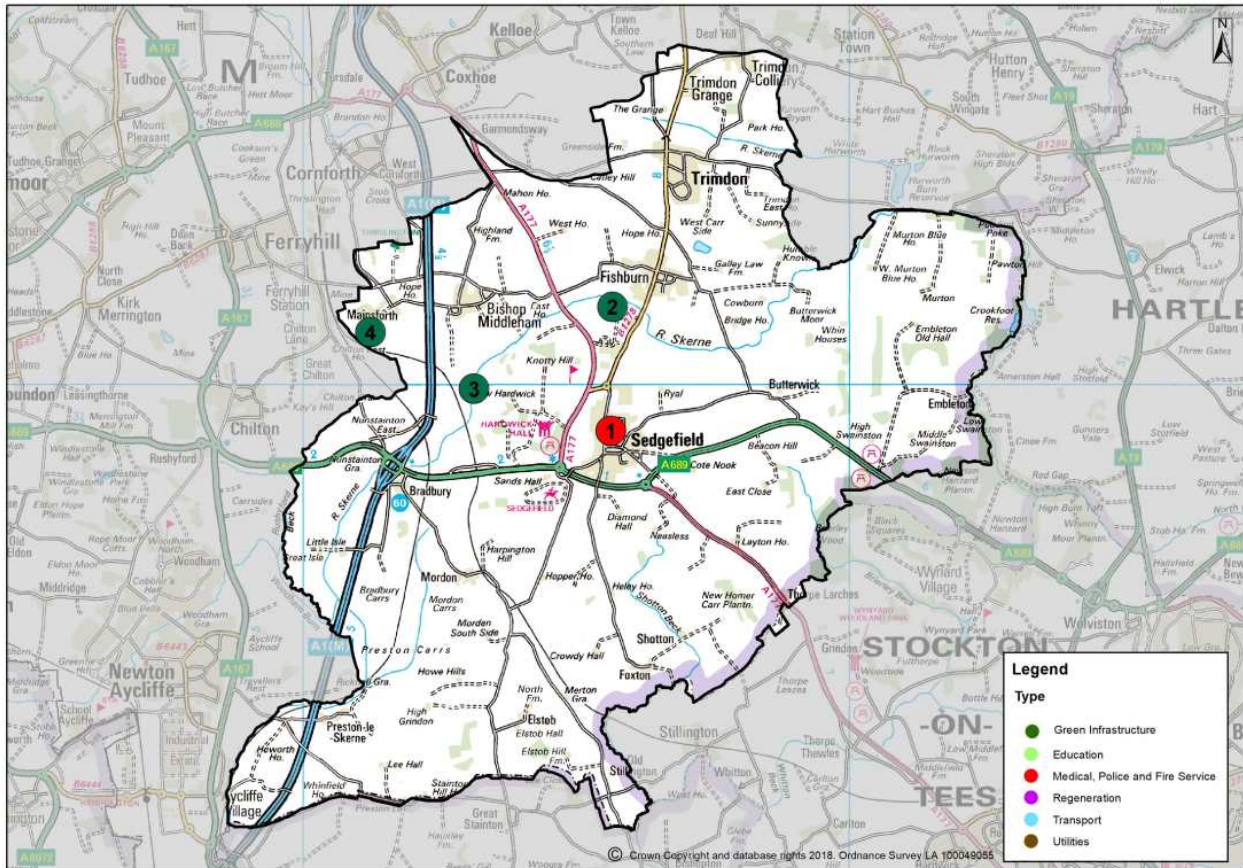
Water Management

3.261 Sedgefield STW has a capacity for 300 houses, a phasing strategy has been put in place until the upgrade can take place. It has been identified as a potential candidate for investment in AMP7.

Surface Water

3.262 New developments present the best opportunities to manage the risk of surface water flooding, particularly the development of combined sewer networks. NWL have done an initial assessment of the foul and surface water drainage networks across the allocated sites in South East Durham. Results show that surface water will need to be carefully managed at the majority of sites in South Durham. The application of the water management and water infrastructure policies of the CDP will be crucial to managing flood risk.

Picture 7



GP Surgeries and Health Care

3.263 There is currently adequate health care in these areas but additional housing may have implications for health care provision in the Sedgefield area. It is important to note the impact of housing growth in the Wynyard area which falls within the Hartlepool Borough Council locality. The council will continue to engage with the local Clinical Commissioning Group and NHS Property Services regarding the possible impact from developments on service provision.

It is important to acknowledge that NHS England in Durham, Darlington and Tees locality currently do not have any funds available for new investments in general practice premises. Therefore, increases in demand will need to be managed within existing facilities, there is some scope for this given that many surgeries currently only operate weekday office hours. Healthcare infrastructure is an expensive resource and increasingly will need to be used as fully as possible to meet demand and population growth. If additional funds can be identified as part of the planning process to support extending current or new facilities and services this can contribute towards mitigation, however, this does not address any long-term revenue implications or gaps between securing additional revenue funding.

Green Infrastructure

3.264 Habitats: In the South East Durham area the landscape is different, being lowland, settled farmland with fewer uncultivated areas and therefore few isolated remnant priority habitats present. The wetland and grassland habitats around Bishop Middleham, Hardwick Park, and Mordon Carrs remain important areas for migratory birds.

For more information on priorities for implementation and appropriateness, please refer to the Strategic Green Infrastructure Framework; Biodiversity Action Plan held by the North East England Nature Partnership <http://neenp.org.uk/>; and Durham Landscape Character Assessment <http://www.durhamlandscape.info/article/10056/The-Durham-Landscape>

East Durham

Travel Patterns in East Durham

3.265 According to Census data (2011),^(xvi) Seaham and Peterlee have very different journey to work patterns. Seaham has a much higher percentage of out-commuting trips that cross the boundary (47%) into Tyne and Wear than Peterlee (26%). 32% of Seaham's commuters travel to Sunderland compared with just 11% of Peterlee's commuters. Peterlee has a more local travel pattern than Seaham, with 64% of people working within Peterlee, also travelling from within that area.

Walking and Cycling Infrastructure

3.266 Walking and cycling routes will be identified for Seaham and Peterlee as part of the LCWIP process and this will help determine future priorities for investment. In addition, the Rights of Way Improvement Plan and Cycling Strategy supported delivery of the Access Prioritisation project in Peterlee and Seaham. Local path improvements have been carried out through this project. Capital funding will also be identified in the current capital programme to enhance the National Cycle Network Route 1, which runs close to Peterlee and the East Coast and crosses through the County from north to south, for extra provision for equestrians and cyclists.

Rail Network

3.267 Seaham station (145,362 passenger journeys per annum 16/17) on the Durham Coast Rail Line (DCRL) is served by the hourly Northern service between Teesside and Tyneside. DCC have contributed to station improvements through the Local Transport Plan.

3.268 A new station at Horden (Peterlee) will improve access for passengers on the Durham Coast Line. It will connect areas of high population with areas of employment (such as the Tees Valley and Tyne and Wear conurbations) as well as making East Durham more attractive for inward investment. It is expected that the newly constructed station will generate 71,000 trips per annum by 2024. A funding package for the new station is in place with planning approval expected in December 2018 with the station due to be open by the end of 2020.

3.269 Durham Coast electrification should also be considered in the context of the Tyne & Wear Metro infrastructure renewal. The existing 1500v DC infrastructure on the shared running section could be replaced with 25KV AC if dual voltage rolling stock was specified for Metro and this would greatly enhance the business case for electrification of the Durham Coast Rail Line south of Sunderland.

Bus

3.270 The location of new developments has a significant influence on travel patterns and the degree to which they can be effectively served by commercially successful bus services. An initial assessment of sites with potential for residential development has shown many have inherently strong scope for accessibility by bus services, and this has influenced the selection of sites for the County Durham Plan.

xvi County Durham Travel Patterns, Durham County Council, 2011 Census Data Analysis

Highways

3.271 A key priority for investment in East Durham is at Hawthorn Junction and at Sheraton interchange. The key benefits are explained below.

3.272 Hawthorn junction on A19 - The council proposes to extend the employment offer to the north east of the county in the Seaham and Murton area, with a view to facilitating economic development and creating jobs. At present, the existing junctions where the A182 meets the A19 operates within acceptable conditions.

3.273 However, there is the potential for this junction to become over congested as a result of proposed economic development in the area with proposed JADE employment site. There are a number of unimplemented employment planning permissions in the area including a key council owned development plot to the west of the junction at Hawthorn. The development zone to the west of the junction, JADE Business Park, is of a size whereby the existing A182/A19 junction cannot sustain the additional traffic growth. Funding for capacity enhancements has now been awarded to support employment growth and work is scheduled to commence on this junction in 2019.

3.274 The council have also submitted a joint HIF bid with Sunderland City Council for funding so the junction of the A19/A1018 near Seaham can be improved, discussions around any potential programme of works are ongoing with Highways England and the final scheme would be agreed with them before implementation.

Broadband

3.275 Factors that affect broadband quality include the distance of the line from the telephone exchange serving it, the gauge and quality of the wires or cable, the number of connections on the line between the exchange and the premises, interference from radios or electrical equipment, and the quality of the equipment customers use. Although the internet can be accessed wirelessly in some locations, broadband is traditionally delivered through wired and fibre optic networks.

3.276 As a result of the Digital Durham project supported by the Department for Culture, Media, and Sport, local authorities and British Telecom most areas within East Durham should experience an improvement in the quality and speed of broadband services through the roll out of fibre services.

Water Management

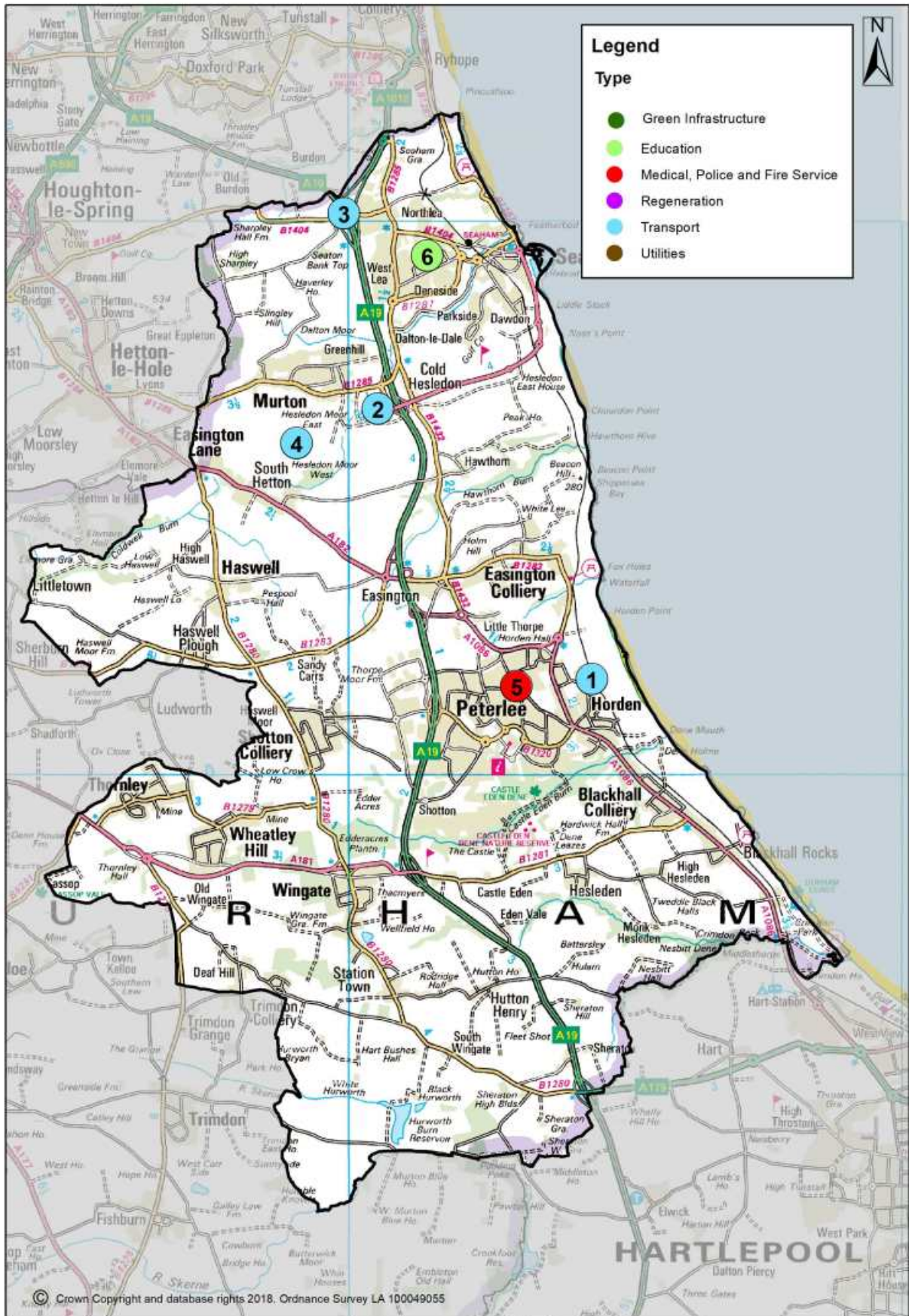
3.277 No STW capacity issues have been identified in the East of Durham.

Surface Water and Flooding

3.278 New developments present the best opportunities to manage the risk of surface water flooding, particularly the development of combined sewer networks. NWL have done an initial assessment of the foul and surface water drainage networks across the allocated sites in East Durham. Results show that surface water will need to be carefully managed at the majority of sites in East Durham. The application of the water management and water infrastructure policies of the CDP will be crucial to managing flood risk.

3.279 Flooding is less of an issue than it is elsewhere in the county and country. This is because the magnesian limestone which underlies most of the area is porous and permeable, and because many towns are situated on higher ridges of land in between the coastal dunes.

Picture 8



GP Surgeries and Health Care

3.280 The East Durham area has been a focus for recent investment, Seaham has a new primary health care facility and Peterlee is identified as a strategic area for future investment. Proposed housing allocations and existing commitments could require additional consulting spaces in the Peterlee/Horden area. The council will continue to engage with the local Clinical Commissioning Group and NHS Property Services regarding the possible impact from developments on service provision.

3.281 It is important to acknowledge that NHS England in Durham, Darlington and Tees locality currently do not have any funds available for new investments in general practice premises. Therefore, increases in demand will need to be managed within existing facilities, there is some scope for this given that many surgeries currently only operate weekday office hours. Healthcare infrastructure is an expensive resource and increasingly will need to be used as fully as possible to meet demand and population growth. If additional funds can be identified as part of the planning process to support extending current or new facilities and services this can contribute towards mitigation, however, this does not address any long-term revenue implications or gaps between securing additional revenue funding.

School Places

3.282 The proposed housing allocations in the Seaham area will have an impact on pupil numbers within these area with appropriate mitigation being needed to be provided. As such the councils [Developer Contributions for Education Provision policy](#) will be relevant. Initial forecasts indicate that 3 secondary classrooms will be required in the Seaham area, however, this only covers general teaching classrooms required, it is possible that subject specific rooms for science, art, design and technology etc. maybe needed and this will need to be discussed with the pupil place planning team at the council.

Green Infrastructure

3.283 Open Spaces: Most settlements have an ample supply of open space overall. This is for several reasons; their proximity to the coast and coastal denes, the amount of amenity open space left in villages after the demolition of over-supplied housing in the new town of Peterlee and the distinctive design and layout which incorporates very large amounts of open space. However there is often an imbalance with a shortage of parks and gardens and an oversupply of poor quality and under used amenity open space.

3.284 Habitats: Ecological networks in this area are concentrated at the coast and within the coastal denes. Much of the coast is a European Protected Site either as the Northumbria Coast/Teemouth and Cleveland Coast Special Protection Area (SPA) for birds and/or the Durham Coast Special Area of Conservation (SAC). These are also known as Natura 2000 sites. They contain internationally important populations of wintering wading birds and summer breeding little terns as well as most of the Para maritime Magnesian Limestone vegetation in Britain, together with the species-rich dune system. Castle Eden Dene is also a designated SAC, due to its rare *Taxus baccata* woodland. Many of the other denes are designated as SSSIs or are of Local Wildlife/Geological Site status. These habitats are often sensitive to recreational pressure and associated disturbance, and have to be carefully managed to enhance the quality of the habitats.

3.285 For more information on priorities for implementation and appropriateness, please refer to the Strategic Green Infrastructure Framework; County Durham Plan Habitat Regulations Assessment and Guidance Document; Biodiversity Action Plan held by the North East England Nature Partnership <http://neenp.org.uk/>; and Durham Landscape Character Assessment <http://www.durhamlandscape.info/article/10056/The-Durham-Landscape>

West Durham

Travel Patterns in West Durham from Main Settlements

3.286 Many of the commuting trips in West Durham, stay within West Durham. According to Census data (2011),^(xvii) West Durham sees the second lowest level of journeys crossing the county boundary with only 21% travelling to a neighbouring authority. Of those that remain within the county 18% terminate in South Durham, with 60% being internal to West Durham^(xviii).

Walking and Cycling Rights of Way

3.287 Walking and cycling routes will be designated in Barnard Castle as part of the LCWIP process. In doing so the Council will consider the rural nature of this area, the settlement pattern, existing route provision and traffic levels.

3.288 In addition, an objective of the Teesdale Area Action Partnership is to develop the former railway line between Barnard Castle and Bishop Auckland into a multi-user route for walkers, cyclists and horse-riders, providing a safe and attractive route serving both residents and visitors to the area. Delivery of this route is not connected to or dependent on the County Durham Plan and will only be achieved by securing funding from external sources over the long term.

Rail Network

3.289 Rail services in West Durham are limited to mainly heritage trips and occasional freight.

3.290 The passenger emphasis is now on the heritage operation two days per week between April to October with an enhanced service at holiday times and special Christmas operations. Though regular through working from upper Weardale to Shildon and Darlington is now less likely in the medium term the chain of attractions comprising the Head of Steam museum at Darlington North Road, National Railway Museum's Locomotion facility at Shildon and the Weardale Railway heritage operation can still be marketed as a very strong tourism attraction and economic driver originating and destined for West Durham.

3.291 The Weardale Railway is in private ownership. Open cast coal was transported from a terminal in Wolsingham until recently. Other markets (stone and aggregates) have been explored but to date no contracts have been signed.

Bus

3.292 No sites in the West Durham delivery area have been identified as requiring improvements

Highways

xvii County Durham Travel Patterns, Durham County Council, 2011 Census Data Analysis
xviii County Durham Travel Patterns - 2011 Census Data Analysis (October 2016)

3.293 A corridor of interest for a possible Barnard Castle relief road has been identified. This new route would connect the A688, A67 and would connect with Westwick Road, thereby allowing vehicles to cross the River Tees using Abbey Bridge and then join the A66 eastbound. This route would help reduce the quantity of through traffic, particularly HGVs through Barnard Castle, thereby providing some reduction of vehicle flows and improved local amenity in the town centre. In addition, it could potentially help to reduce damage to the historic fabric of the town, with a ban being imposed on HGV's not stopping in the town centre - if the road was delivered.

3.294 In the current funding climate, it is anticipated that it will be difficult to secure funding for this scheme during the Plan period, based on evidence which assessed projected traffic flows for the new road. Therefore, the route has not been safeguarded in the Plan but the Council have identified a corridor of interest.

3.295 The delivery of the road would be dependent upon securing funding from DfT which would require the support of a robust business case with a high benefit to cost ratio. Currently, benefits are usually measured by DfT and other funding sources in terms of reducing journey times and economic benefits of new transport links (rather than heritage preservation factors).

3.296 A minor reconfiguration of the roundabout near the Market Cross should help with the traffic flow in this area.

Strategic Road Network

3.297 TfN and Highways England are looking to increase the capacity of the A66. The council have made both organisations aware that appropriate plans should be put in place so that diversionary routes do not have a negative impact on residents of Barnard Castle.

Broadband

3.298 Factors that affect broadband quality include the distance of the line from the telephone exchange serving it, the gauge and quality of the wires or cable, the number of connections on the line between the exchange and the premises, interference from radios or electrical equipment, and the quality of the equipment customers use. Although the internet can be accessed wirelessly in some locations, broadband is traditionally delivered through wired and fibre optic networks.

3.299 As a result of the Digital Durham project supported by the Department for Culture, Media, and Sport, local authorities and British Telecom most areas within West Durham should experience an improvement in the quality and speed of Broadband Services through the roll out of fibre services. However, some remote / isolated areas may require alternative solutions.

Water Management

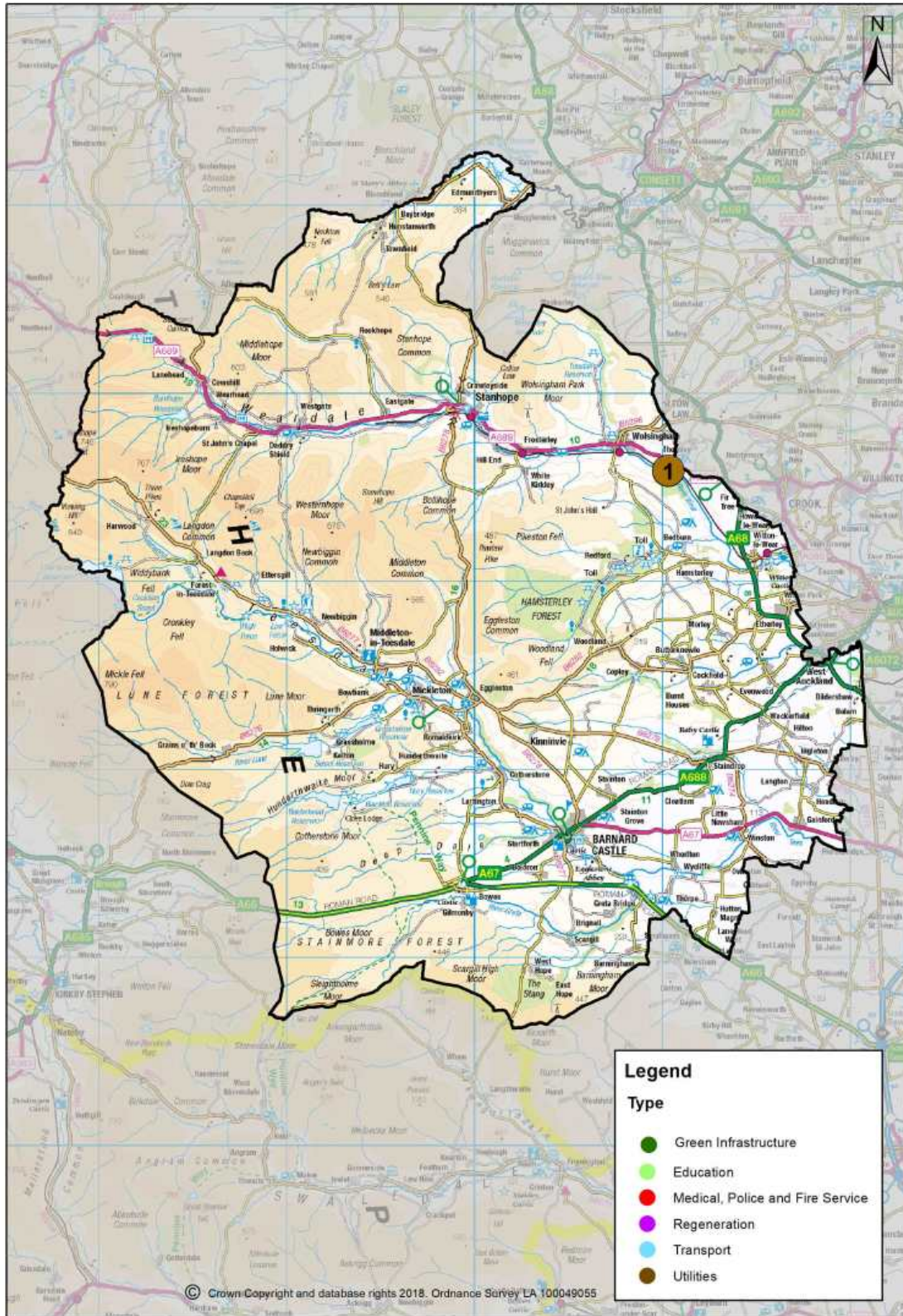
3.300 The Wolsingham STW is at capacity and has been identified for investment during AMP6, the work should be completed by 2020.

Surface Water and Flooding

3.301 New developments present the best opportunities to manage the risk of surface water flooding, particularly the development of combined sewer networks. NWL have done an initial assessment of the foul and surface water drainage networks across the allocated sites in West Durham. Results show that surface water will need to be carefully managed at the majority of sites in West Durham. The application of the water management and water infrastructure policies of the CDP will be crucial to managing flood risk.

3.302 In some areas, such as Waskerley Beck (Wolsingham) further action may be needed to maintain the current level of flood risk in the context of climate change. The EA suggest that, in the area of the Wear headwaters, action could be taken to increase the land's capacity to store flood water: by the blocking of grips and gullies in peatland areas, re-vegetation, and increasing the area of native woodland.

Picture 9



GP Surgeries and Health Care

3.303 West Durham is more remote and often health care facilities are less accessible to members of the public. However, there is a primary care hospital at Stanhope and there are no major concerns about the level of service in West Durham. The council will continue to engage with the local Clinical Commissioning Group regarding the possible impact from developments on service provision.

3.304 It is important to acknowledge that NHS England in Durham, Darlington and Tees locality currently do not have any funds available for new investments in general practice premises. Therefore, increases in demand will need to be managed within existing facilities, there is some scope for this given that many surgeries currently only operate weekday office hours. Healthcare infrastructure is an expensive resource and increasingly will need to be used as fully as possible to meet demand and population growth. If additional funds can be identified as part of the planning process to support extending current or new facilities and services this can contribute towards mitigation, however, this does not address any long-term revenue implications or gaps between securing additional revenue funding.

School Places

3.305 With the exception of some of the more populated centres such as Middleton-in-Teesdale and Wolsingham, pupil numbers are projected to reduce in many areas. There are more surplus places in this part of the county due to its rurality and a commitment to keep primary schools open so that pupils do not need to travel too far to attend a school.

Green Infrastructure

3.306 Open spaces: There is a shortage of designated public open space, and spaces are patchily distributed, with, for example, Stanhope having Weardale's only true park. However, it may not be appropriate to apply the same standards here as elsewhere, firstly because many settlements have convenient access to large amounts of Open Access Land and secondly, some smaller settlements are not large enough to support a full range of open space types. The Playing Pitch Strategy found that the quantity of playing pitches was adequate for the small number of teams playing in the area.

3.307 Habitats: This area is dominated by the North Pennines Area of Outstanding Natural Beauty (AONB) and the Natura 2000 European Protected Sites, which comprise of Special Areas of Conservation (SAC) for habitats and Special Protection Areas (SPA) for birds. National designations include Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR). Typical habitats which encompass the area include upland heath, species-rich acid, neutral and calcareous grassland, mires, flushes and Juniper woodlands. These habitats are sensitive to inappropriate management, loss of habitat, disturbance and nutrient enrichment through air pollution.

3.308 For more information on priorities for implementation and appropriateness, please refer to the Strategic Green Infrastructure Framework; County Durham Plan Habitat Regulations Assessment and Guidance Document; Biodiversity Action Plan held by the North East England Nature Partnership <http://neenp.org.uk/>; and Durham Landscape Character Assessment <http://www.durhamlandscape.info/article/10056/The-Durham-Landscape>