DONCASTER INFRASTRUCTURE STRATEGY

MEETING OUR LONG TERM INVESTMENT NEEDS

ANNEX

2020 UPDATE
INTRODUCTION

This report is the annex to the Doncaster Infrastructure Strategy main report. It amends the 2015 report with updated baseline data and scheme information. All data is correct as at spring 2019.

The Doncaster Infrastructure Strategy consists of the following sections.

- A main report setting out the key infrastructure needs facing the borough and how they will be addressed.
- An annex containing a more detailed description of the key infrastructure proposals and projects.
- A short summary of main findings and recommendations of the report.

The main report includes a schedule of the key infrastructure projects that are required or are desirable to support Doncaster’s growth.

This annex covers the following themes.

1. Transportation (strategic highways, rail transport, cycling and bus transport).
2. Education and learning (primary, secondary and further education).
3. Green infrastructure (greenspaces, green routes and biodiversity).
5. Flooding and drainage infrastructure.
6. Community, sport and cultural facilities.
7. Energy and telecommunications.
8. Utilities (gas, electricity and waste water).

This annex also highlights gaps in provision (in the absence of funding or committed projects) and looks at how these can be addressed.

Copies of these documents are available from our website at www.doncaster.gov.uk/localplan.

The information is accurate as of spring 2019.

The Doncaster Infrastructure Strategy will be updated as new information becomes available and infrastructure proposals are confirmed in more detail.
CHAPTER 1: TRANSPORTATION

1.1. Strategic transport infrastructure plays a key role in supporting the economic growth of the Borough and the wider Sheffield City Region. It provides the means by which residents can access employment, education, retail and leisure opportunities, as well as providing the mechanism for businesses to transport goods and services.

1.2. The Sheffield City Region Transport Strategy sets out an overarching transport vision to offer people a great place in which to live, work, invest and visit over the next 15 years. The goals of the strategy are to support the economic growth of the Sheffield City Region whilst enhancing social inclusion and health, reducing emissions from vehicles and maximising safety to keep people and commerce moving efficiently.

1.3. Doncaster’s position at the heart of the UK’s strategic transport network offers access to major conurbations, coastal ports and other parts of the UK and beyond, linking east to west and north to south. Improvements may be required to the strategic transport network to ensure capacity to deliver future growth.

1.4. This chapter sets out the physical transport infrastructure required to deliver the aspirations set out in the Doncaster Local Plan. The schemes outline look to relieve congestion, unlock development (e.g. housing and employment) and improve links between communities across the Borough and to the wider Sheffield City Region.

Strategic highways

1.5. Doncaster occupies a strategic location at the centre of the UK’s motorway network, with access to M18, M180 and A1 (M) motorways and links to the M1 and M62 motorways. The A1 (M) provides direct access to the north towards York and the north east of England and the south towards London. The M18 motorway provides direct links to the east coast ports via the M180 and M62 motorways as well as access to the other regional and national centres via the and M1 motorway.

1.6. However, some parts of the Borough, particularly to the north, suffer from poor connectivity with the Strategic Road Network. Additionally, capacity constraints at key roundabouts and junctions linking to the Strategic Road Network have led to significant congestion and delays at peak times. Improvements to key routes and connections to the Strategic Road Network are required to effectively manage traffic, relieve congestion and ensure capacity to deliver future growth.

Impact of the Local Plan sites.

1.7. Motorway Junctions

An assessment has been undertaken by CH2M (commissioned by Highways England) to understand the potential impact of the Local Plan site allocations on all motorway junctions on the A1 (M) and M18 in Doncaster. The study also proposes appropriate mitigation for any adverse impacts.

1.8. The junctions assessed were the M180 Junction 1, A1 (M) 36, 37 and 38 and M18 2, 3, 4, 5 and 6. The assessment modelled the impacts on the junctions at 2035 both with and without the Local Plan development traffic ensuring that the impacts of the Local Plan development traffic could be isolated. The ‘with’ scenario assessed the cumulative impacts of all the proposed sites.
Assessment outcome.

1.9 The modelling assessment has identified that most of the junctions will be operating over capacity, with or without the Local Plan proposed sites coming forward in the 2035 assessment year. A1 (M) Junction 38 and the M180 Junction 1 are forecast to operate within capacity with the Local Plan sites developed. In addition, M18 Junction 4 is forecast to operate within capacity assuming the implementation of the A630 dualling. For the majority of the junctions, the Local Plan will result in additional queuing and delay, over and above the level incurred without the Local Plan.

Potential mitigation

1.10 Improvement works have been identified by CH2M/Highways England for all of the junctions which are forecast to operate over capacity in the 2035 ‘With’ Local Plan assessment scenario. The modelling assessments indicate that the improvement works proposed will mitigate the impacts of the Local Plan development traffic.

1.11 All development expected to have an impact on the Strategic Road Network (SRN) will be required to demonstrate their impact by way of a detailed Transport Assessment at the time of planning application, and appropriate mitigation determined in detail accordingly.

1.12 Developer contributions will be collected towards the cost of mitigation requirements where appropriate. Where the full cost of a scheme cannot be met this way, other funding sources will be sought by both Highways England and Doncaster Council as and when these opportunities become available.

1.13 Given that all mitigations are based upon future year forecasts, the IDP requirements for the SRN will be reviewed by Highways England at the time of any future Local Plan review and updated as necessary.

Appendix 2 summarises the modelled impacts with and without the Local Plan along with proposed mitigation required.
Highways Network Junctions.

1.14 An assessment has been undertaken by AECOM for Doncaster Council to model the potential impacts of the Local Plan site allocations on key highway junctions and where necessary provide possible mitigation against those impacts. Two modelling scenarios up to 2035 were undertaken:

- Do minimum - sites and schemes built between 2016 and 2019 plus near certain and more likely sites.
- Do something - as do minimum but with additional sites deemed to be reasonably foreseeable).

As result of these scenarios 13 junctions that result in any turn with an increase in 100 passenger car units with an additional 20 seconds of delay have been identified.

**Fig. 2. The 13 identified junctions.**

1.15 Further assessment was undertaken on the 13 junctions. The outcomes suggest that 9 junctions are predicted to operate within capacity as a result of the local plan sites coming forward and require no mitigation. 4 junctions are identified that will operate close to/overcapacity and require mitigation. They are:

- A630/Hatfield lane (map ref. 8)
- A630/Yorkshire Way (map ref. 9)
- Armthorpe Road/Leger Way (map ref. 10)
- Thorne Road/Barnby Dun Road. (map ref. 7)*

1.16 Possible mitigation has been tested which aims to alleviate the issues and add resilience to the network to allow the junctions to work more effectively with the predicted changes. Modelling of the mitigation schemes outlined in the study suggest a reduction in the amount of queueing and delay at the junctions identified as needing improvement.

*Analysis shows proposed mitigation at this junction would not be cost effective in terms of the benefits gained therefore it was decided that this junction would remain as mini roundabout.

Appendix 3 summarises the Impact of the Local Plan allocated sites on the 13 junctions subject to further assessment and the proposed mitigation.
Planned Projects

A1 (M) motorway (capacity improvements)

1.17 Highways England is looking to upgrade and increase the capacity of the A1 around Doncaster to improve safety and reduce congestion at peak times. Currently, the section of A1 (M) through Doncaster has some of the highest levels of flow breakdown and the accidents levels on the A1 (M). Highways England have identified that capacity and safety improvement are required on the section of the A1 (M) between Doncaster and Wakefield to enable local growth aspirations.

Highways England have identified a number of improvement schemes on the A1 (M) in the Doncaster area. This includes upgrading the A1 to motorway standard between A1 (M) junction 38 and junction 40 (Redhouse to Darrington) and the creation of an A1 (M) Doncaster Bypass. This Bypass will realign the route of the A1 (M), adding further capacity to the two-lane section of the A1 (M) between junction 35 and junction 38. Both schemes are under consideration for 2020 - 2025 delivery (Road Investment Strategy Period 2).

Improvements to M18

1.18 The M18 provides strategic connectivity for Doncaster, linking some of the Boroughs largest employment areas such as the iPort logistic hub and Doncaster Sheffield Airport to the M1 and M62 motorways. Capacity improvements may be required along M18 between junctions 2 and 6 to improve journey times, reduce congestion and accommodate future growth. A number of improvement schemes are being explored in partnership with Highways England to increase capacity at junctions leading to the M18.

Pan-Northern Route (Barnsley – Doncaster)

1.19 Improving connectivity between major towns and cities in the North is of fundamental importance in the Government's plans to create a Northern Powerhouse. The Pan-Northern Route (PNR) scheme provides a new strategic highway link, connecting Manchester via the Trans-Pennine Tunnel in the west and the M180 link to the Humber Ports in the East. The scheme aims to establish a new east-west strategic route, releasing capacity on the M62 and enabling resilience, investment and growth across the Pennines.

1.20 This new highway will provide resilience, capacity, investment opportunities and growth across the Pennines, providing a strategic east-west link across the north of Doncaster, through Barnsley linking the Trans-Pennine Tunnel with the M1, A1 (M), and M180 and M62 motorways into Hull. The scheme could potentially generate significant economic activity (GVA) along the development corridor within Barnsley and Doncaster boroughs.

1.21 As well as providing important Trans-Pennine connectivity benefits, the proposal will also build on and enhance the benefits of a number of local highway schemes to enhance connectivity across the region, particularly improving links between Doncaster and Barnsley.

1.22 Currently, direct connectivity between Barnsley and Doncaster is poor. The A635 corridor is one of the most congested corridors in the city region and reflects the fact that it is the only east-west route between Barnsley and Doncaster and there are no direct rail services between the two centres.

1.23 The PNR will form part of a series of interlinking routes, between Manchester and the Humber Ports via Barnsley and Doncaster. This will include a number of interlinking schemes in Doncaster, such as the Hickleton and Marr bypasses and the A1-A19 link road. It will also enable connections between

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the A19 and the M18. The PNR is subject to funding approval. The precise route is yet to be finalised. If funding is not forthcoming, the A1-A19 and the Hickleton and Marr bypasses will be delivered as stand-alone schemes.

Dearne Valley to A1 (M) Improvements (Hickleton / Marr Bypasses)

1.24 The A635 forms the principle route between Doncaster and Barnsley and provides a link to the A1 from Barnsley and the Dearne Valley. In light of significant recent development and further growth plans in the Dearne Valley area, connectivity improvements are required between the Dearne Valley and the A1 (M).

1.25 The A635, which passes through the villages of Hickleton and Marr, is currently a low capacity, single carriageway road. The high volumes of traffic experienced along the road cause severance issues in both villages, as well significant air quality challenges. Both villages are conservation areas and Hickleton is designated as an Air Quality Management Area.

1.26 The Hickleton and Marr Bypasses looks to divert traffic and congestion away from the villages, connecting the A635 Barnsley Road/ Doncaster Road with the A1 (M). The schemes will also improve connectivity to Barnsley and the Dearne Valley to Doncaster, and provide a key strategic link between the A1 and M1 motorways.

1.27 The schemes will form part of the proposed Pan-Northern Route, creating a series of interlinking routes between Manchester and the Humber Ports via Barnsley and Doncaster. In January 2020 Amey OW Limited were commissioned to undertake a feasibility study and outline business case for a Dearne Valley to A1M regeneration route. The extent of the Scheme is from A6195 Broomhill Roundabout to A1 [M] Junction 37 at Marr via the A6195/A635 Junction at Cathill. The A635 section includes bypasses of Hickleton and Marr. The feasibility study will be complete in June 2020. At the time of publication funding for the scheme is to be confirmed.

North Doncaster A1-A19 Link

1.28 Improving connectivity in the north of the Borough is a priority to boost regeneration and economic development in Doncaster's northern communities that have higher levels of deprivation. Currently, the B1220 Hampole Balk Lane / Askern Road via Skellow forms the faster route between the A1 and A19 to the north of the Borough. This existing link does not have sufficient capacity to accommodate the additional traffic arising from proposed growth opportunities in the wider area and represents a future bottleneck for regeneration.

1.29 The A1- A19 link road looks to improve connectivity in the North of Doncaster, boosting regeneration and economic development. The proposed scheme will provide a link road from the A1 to the A19 at Bentley Moor Lane, north of Toll Bar. In particular, the improved access to the A1 will help release the long-term potential of the Carcroft employment area and help to enable the development of land at Carcroft Common.

A19 - M18 connectivity

1.30 Improvements between the A19 and M18 to increase accessibility for Doncaster’s northern communities and support regeneration priorities. Currently, connectivity between the A19 and M18 and to the M180 is poor. This scheme looks to provide a new east – west connection, increasing accessibility in the north of Doncaster and releasing capacity to support economic development and regeneration.

1.31 The schemes will form part of the proposed Pan-Northern Route, creating a series of interlinking routes between Manchester and the Humber Ports via Barnsley and Doncaster.
Hatfield Link Road

1.32 The Hatfield link road\(^2\) is a critical element of the Unity scheme, a 170-hectare mixed-use development that aims to transform and regenerate the areas of Hatfield, Stainforth, Dunsden and Dunsville. Unity will feature over 3000 new homes, a range of employment opportunities, a new retail centre, and an upgraded transport interchange.

1.33 The 2.9km new road will connect the Hatfield/Stainforth area to junction 5 of the M18 motorway and junction 1 of the M180, unlocking up to 200 hectares of development land and improving access to the strategic transport network. Development is underway as at January 2020 with completion expected December 2020. Figure 3 below shows the route of the proposed new road.

Figure 3: Plan showing the proposed route of the Hatfield Link Road

West Moor Link (A630)

1.34 The A630 Westmoor Link scheme seeks to reduce congestion and enable growth along a key arterial route in Doncaster. The A18 / A630 route is a heavily trafficked urban link connecting Doncaster Town Centre with the east of the Borough and the strategic road network. The route suffers from congestion and delays for all modes, particularly during peak times.

1.35 The implementation of the A18 rail bridge widening scheme will increase capacity, reduce congestion, improve safety and enable development land to benefit from increased accessibility creating new jobs and housing in the Borough. The bridge works will facilitate the construction of an additional traffic lane and improved walking and cycling facilities and will remove the height restrictions currently in place. The scheme is fully funded (from various sources) and will be undertaken over 3 key phases.

\(^2\) https://wearedoncaster.co.uk/investment-portfolio/junction-5-m18/
Improved access to Aero Centre from M18

1.36 Aero Centre Yorkshire is a 1,600-acre business park surrounding Doncaster Sheffield Airport. The development of the site, supported by the Doncaster Sheffield Airport Masterplan, looks to develop major economic cluster of businesses around the airport. Over 100 businesses are already on site and there are plans for significant growth.

1.37 In light of these developments, access improvements are required to the Aero Centre from the M18 to ensure network capacity for existing employment and to support future growth aspirations.

M18 / A1 (M) interchange improvements

1.38 Due to limited interchange facilities between M18 and A1 (M) congestion and queueing are frequent at peak times around junctions 2 and 3 of the M18 and junctions 35 and 36 of A1 (M). These capacity issues also have a direct impact on the surrounding local highway network.

1.39 Highways England plan to increase the capacity of the A1 (M). However, further work is required to increase the capacity of the M18 / A1 (M) interchange to accommodate both current and future demand.

North Nottinghamshire to A631 capacity improvements

1.40 Capacity improvements are required to improve access from North Nottinghamshire to Doncaster via the A631, due to recent growth in the neighbouring district of Bassetlaw. Harworth and Bircotes, located to the north of the Bassetlaw District close to the Doncaster boundary, have seen significant housing and employment development over recent years and the emerging Bassetlaw Local Plan looks to further this growth.

1.41 This development has had impact on the highway network in Doncaster, particularly in Bawtry town centre (A631 & A638), Tickhill Spital (A631 & B6463) and in Tickhill town centre (A631 & A60). The A631 Stripe Road Junction in Tickhill Spital has been adversely affected because of the rise in trips locally. Improvement schemes are required along the A631 corridor to accommodate the recent growth and reduce congestion. Potential capacity improvements to the affected Doncaster junctions are subject to agreements with Bassetlaw Council.

Rail

1.42 Doncaster train station has good rail links to major towns and cities through its position on the East Coast Mainline, with 104 stations directly served by trains from Doncaster. The Borough has a range of local and regional services and has eight local rail stations.

1.43 Rail passenger numbers are growing and the local rail network requires improvements to increase capacity, increase connectivity and improve frequency of services in order to increase access to jobs and facilities, particularly at peak times. Capacity issues are increasing on the rail infrastructure network, in particular at Doncaster Stations and on the East Coast Mainline (ECML).

1.44 Improvement priorities for the rail network in the Doncaster area include:

- new electrified main line rail connection
- rail network enhancements schemes to improve connectivity and capacity;
- upgrading of the East Coast Mainline (Leeds and York) and Trans Pennine links (Manchester, Lincoln, Sheffield and Hull), including capacity improvements in the Doncaster Station area;
- rail service improvements to improve connectivity and increase frequency;
- new high-speed rail opportunities in association with new and expanded interchanges; and
- developing a tram train service to serve the Borough.
Improving local linkages including re-opening Askern Station

Planned Projects

Doncaster Sheffield Airport Station and East Coast Main Line Connection

1.45 National policy on aviation recognises the importance of regional airports as they play an important role in meeting the UK’s need for domestic and international connections. Doncaster Sheffield Airport was opened in 2005 and is recognised as the fastest growing of the UK airports carrying over 1 million passengers per year, now serving more than 40 flight destinations across the world.

1.46 Doncaster Council is currently working with Doncaster Sheffield Airport Ltd, Sheffield City region combined Authority, Network rail and Transport for the North to further plans for a new Airport terminal station with park and ride facilities at Doncaster Sheffield Airport ‘GatewayEast Growth Hub ’served by a connection to the East Coast Mainline (ECML). The rail connection would bring national high-speed electrified rail connectivity to the Airport. Connectivity would unlock significant economic growth for Doncaster, the wider Region and the North of England with the station serving as an international gateway to the region The GatewayEast Growth Hub rail Station has the potential to be the City Regions most transformational transport schemes in terms of creating jobs. Forecasts show a potential contribution of £12 Billion GVA to the national economy by 2050. The cost of the project is estimated to be between £300 and £380 million and could be operational by 2025. A business case in being finalised (as at Feb. 2020) for submission to government for potential funding.

Hatfield and Stainforth railway station – new transport interchange

1.47 Hatfield and Stainforth railway station requires significant modernisation. The station is currently isolated from existing shops and services and residential communities within Dunscroft, Hatfield and Stainforth.

1.48 The Unity masterplan proposes to create a large-scale, mixed-use community incorporating new homes, open spaces, employment opportunities, leisure facilities, a new retail centre and a new transport interchange around the current railway station. The new interchange will include a new bus station, park and ride, revamped passenger facilities (including new toilet facilities and a pedestrian concourse over the railway line) and cycle facilities.

New, expanded or re-opened Lines and Stations

1.49 There is an aspiration to enhance the local rail network through the introduction of new and re-opened lines and stations, alongside existing rail line improvements. Such schemes can help to relieve congestion on local roads by providing a sustainable alternative to car travel, and can significantly increase accessibility of existing or new developments.

1.50 A number of opportunities are being explored, including a new station at Askern to the north of the Borough and associated improvement works to the line, to improve accessibility and reduce congestion. There is also an aspiration to explore reinstating the direct rail line between Doncaster and Barnsley to improve public transport connectivity between the two towns. In June 2019 the Sheffield City Region submitted its draft business case for the Transforming Cities Fund which includes proposals for new investment to improve access to stations at Adwick, Bentley, Conisbrough, Kirk Sandall, Hatfield & Stainforth, Mexborough and Thorne.

1.51 Local Plan Policy 13 includes support for the re-opening of Askern Railway station (if feasible). The land for the station has been safeguarded should the opportunity arise and the business case is proved. Feasibility work has been undertaken and funding opportunities investigated.

1.52 High Speed 2 (HS2) is a national high-speed rail project promoting a completely new HS2 main line between London and Birmingham and onwards to the north-west, East Midlands and Yorkshire. The first phase will link the Capital and Birmingham while the second phase will continue to Leeds via Doncaster and South Yorkshire. There will be no station in the Doncaster area under current route proposals.

1.53 All of the above schemes are supported by the Sheffield City Region Integrated Rail Plan (July 2019). The plan sets out a vision for how the region will be better connected by both high speed and conventional rail networks. A new East Coast mainline station at the airport is highlighted as a ‘flagship’ scheme. The plan also aims to integrate tram-train services at the airport to provide local and regional links. The Government approved the go ahead for the scheme in February 2020.

Fig. 4. HS2 the planned route.

Northern Powerhouse Rail (NPR)

1.54 NPR is Transport For the Norths (TFN) major rail programme to improve connectivity between the Norths town and cities with proposes new and upgraded lines. Currently (at 2020) TFN are looking at potential linkages with HS2, concept routs, funding options and preparing an outline business case.

Doncaster is investigating the feasibility of station on the NPR line (potentially at Goldthorpe) and Tram Train connectivity.

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4 https://sheffieldcityregion.org.uk/irp/
5 https://transportforthenorth.com/northern-powerhouse-rail/
Doncaster Station Forecourt re-development

1.55 The £7 million pound scheme funded by the Sheffield City Region to upgrade the station forecourt is well under way. The development is part of the wider Urban Centre Masterplan\(^6\) and is being undertaken in partnership between Doncaster Council, Virgin Trains (who manage the station) and South Yorkshire Passenger Transport Executive (SYPTE). It will provide an improved ‘gateway’ into Doncaster centre from the station. Traffic flows will be improved in and out of the station and there will be better pedestrian access into the Town centre. A new car park has been built on the site of the former Royal Mail sorting office on St Sepulchre Gate West and there are also new drop off and pickup points and new Taxi loop. The scheme will be completed in 2020.

Air

Doncaster Sheffield Airport Masterplan (draft)

1.56 The draft masterplan\(^7\) (2018) sets out how the airport and its wider site is proposed to develop up to 2037. It sets out passenger growth targets, terminal enhancements, airside and landside commercial development (employment, cargo, retail), and housing. The ‘core growth scenario’ forecasts an economic benefit of £3.7 billion by 2037. The airport is currently (Jan 2020) engaging with the Government as part of the Regional air Connectivity Review\(^8\) which is looking at how regional airports can contribute to economic growth.

Bus

1.57 The South Yorkshire Passenger Transport Executive (SYPTE) has responsibility for supporting public transport services throughout South Yorkshire. Doncaster has a comprehensive bus network serving urban and rural communities. The bus network helps to support areas hard to reach by other modes of public transport and can provide a vital lifeline to rural communities. However, bus patronage has been falling for a number of years, with annual traffic surveys suggesting up to a 33% decrease in average passengers numbers over the last 10 years.

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\(^6\) [https://www.doncaster.gov.uk/services/planning/doncaster-town-centre-masterplan](https://www.doncaster.gov.uk/services/planning/doncaster-town-centre-masterplan)

\(^7\) [http://flydsa.co.uk/masterplan/](http://flydsa.co.uk/masterplan/)

A range of bus improvement and efficiency measures are likely to improve bus punctuality and services across Doncaster and other parts of South Yorkshire, particularly at peak times. Doncaster Council works in partnership with the South Yorkshire Passenger Transport and service providers to identify issues and hotspots.

Planned Projects

Doncaster Bus Partnership

1.58 Doncaster Council has been working in alliance with SYPT and service providers through the Doncaster Bus Partnership. Launched in 2016, the Bus Partnership looks to promote and deliver a high quality local alternative to car use in the Borough to address declining bus patronage.

1.59 The principle objectives of the partnership are to improve service delivery and ensure efficiencies through a coordinated approach to ticketing, marketing and network delivery.

1.60 There are a number of aspirations for expanded and/or upgraded key bus routes and improvements to the bus network. This will increase accessibility across the Borough, as well as improve the current bus vehicle stock operating in the Borough to support air quality improvements. Additionally, provision of new and/or improved park and ride facilities are sought at locations such as Unity (Hatfield and Stainforth) and Doncaster Sheffield Airport.

Freight

1.61 With strong links to the strategic transport network and to international ports to the east, Doncaster has seen significant growth in the freight transport and logistics market over recent years. The development of iPort as a major multi-modal transport hub has further strengthened Doncaster's role as a logistics centre of national significance.

1.62 Doncaster is keen to support its role as a logistic hub. Improvements are required in the efficiency of freight transport to reduce the impact on the strategic and local road networks. Alternatives to road transport will be supported. Particularly in relation to rail, aviation and waterway improvements to support freight distribution.

1.63 Priorities to improve the efficiency of freight transport, and provide opportunities for alternatives to road transport where possible include:

- upgrades to freight lines between Immingham, Scunthorpe and Doncaster / Knottingley;
- signalling and loading gauge improvements to allow deep-sea containers on key intermodal arteries;
- navigation and wharf facilities along key waterways;
- secure lorry parking facilities and roadside service areas along the Strategic Road Network to meet future demand;
- increased aviation and rail freight movements, including at the existing rail port at White Rose Way and iPort, Rossington.

Lorry Parking

1.64 Logistics and distribution businesses within Doncaster attract significant HGV traffic and generate a need for lorry parking facilities. Lorry parks provide an essential service to the road freight industry. They are important in terms of road safety, preserving local amenities, reducing crime, and provide vital facilities to meet the needs of the lorry drivers. Lorry drivers require parking for use overnight as well as to wait for allocated delivery or collection slots.

1.65 Anecdotal evidence suggests a minority of lorry drivers are causing disruption to local residents and businesses from parking along the local highway network, notably within existing industrial estates.
and in some residential areas. Complaints range from dangerous parking, to noise, littering, and waste. Closure of the A1 laybys has further exacerbated this problem. Additional provision of lorry parks could help to alleviate some of these issues.

1.66 Where new developments are likely to create a demand for such provision or exacerbate an existing problem, developers may be required to make suitable onsite provision or provide a financial contribution towards an appropriate facility. Ideally, lorry-parking facilities should be provided within a development. New lorry parking facilities should be close to the Strategic Road Network and should be located in areas justified by evidence of need for parking provision.

1.67 Wherever possible, lorry park developments should include a range of facilities proportional to the size of the development, such as toilets, overnight facilities and refreshment facilities, with any ancillary uses being of a type and scale appropriate to the main use of the site as a lorry park.

**Sustainable Transport**

**Cycling**

1.68 Doncaster is committed to increasing the uptake of cycling, both as a leisure activity and as a form of active travel. As a Borough with a range of health challenges including increasing obesity levels and increasing numbers of people with diabetes, the health and wellbeing benefits cycling are of particular significance. Regular cycling has shown to reduce the risk of chronic illnesses such as heart disease, type 2 diabetes & stroke.

1.69 It is intended to implement a programme of interconnected on and off-highway cycle routes across the borough, including cycle lanes, crossings, greenways and advanced stop lines. Routes will be designed to provide direct, safer cycle journeys to the main urban facilities, particularly Doncaster town centre and other Town and District Centres, as well as to key trip generators such as major employment area and tourist attractions. All measures will be in accordance with the adopted Doncaster Cycling Strategy and accompanying documents, and the forthcoming South Yorkshire Local Cycling and Walking Infrastructure Plan.

1.70 Priority will be given to those routes and junctions where:

- there are gaps in the existing network;
- they provide direct access to major trip generators such as Doncaster town centre and other town and district centres, major employment centres and tourist attractions;
- scheme opportunities arise (for example, links to new developments).

**Walking**

1.71 Encouraging people to walk is central to creating sustainable communities. The provision of a safe and pleasant walking environment has a significant role to play in supporting quality of life, improving health and encouraging active travel.

1.72 Walking as a mode of transport has the potential to reduce the number of short car journeys undertaken in the Borough, helping to reduce congestion and improve air quality. As well as contributing to healthier lifestyles, walking supports the development of vibrant public spaces and encourages social cohesion.

1.73 New development proposals must take account of the needs of pedestrians, in line with relevant safety and design standards and guidance. Developers will be expected to provide for walking provision in line with the relevant Supplementary Planning Documents and design guidance and Health Impact Assessments will be required of some cases.
Electric Vehicle Charging Infrastructure

1.74  Electric Vehicle promotion has the potential to contribute towards a reduction in emissions in accordance with air quality objectives and providing sustainable travel choice. The use of electric vehicles is still low at present but growth is expected to continue. Adequate and suitable charging infrastructure is essential to future proof car parking ensuring provision to meet future demand.

1.75  There are currently 16 publicly available charging point locations in the Borough\(^9\). These include two off-street car parks in the town centre, retails parks such as Lakeside, supermarkets and service stations along the Strategic Road Network.

1.76  The 2018 Doncaster Town Centre Car Park Strategy looks to increase supply of publically available electric vehicle charging infrastructure by:
   - Pursuing funding for electric vehicles charging point in convenient and accessible locations;
   - Ensuring provision in new developments through the planning system;
   - Working with partners to explore funding opportunities to provide electric vehicle charging infrastructure are park and ride facilities.

1.77  It is also important to ensure that the type of charging provided meets the need users, with the priority for fast charging infrastructure suitable for short stay use.

Future interventions to plug gaps in provision

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<tr>
<th>Issue</th>
<th>Future Interventions / aspirations</th>
<th>Barriers</th>
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| Capacity constraints                        | • Joint feasibility study with lead from Bassetlaw District Council and Nottinghamshire County Council to investigate solutions (including traffic management measures) to resolve road traffic congestion at Tickhill Spital junction  
• Harworth and Bircotes is a major growth area. This growth needs to be carefully managed to ensure that it does not exacerbate congestions problems especially at the Tickhill Spital junction.  
• Upgrades to existing railway lines, services and stations | • Tickhill Spital, the junction with Stripe Road and Blyth Road, is a major road intersection between Rossington, Bawtry, Harworth and Bircotes (in Nottinghamshire) Traffic continues to queue in two directions (from Rossington and Harworth) at peak times.  
• Capacity constraints on the ECML (in particular between Doncaster and Peterborough and Doncaster and York)\(^10\) |
| Lack of rail connectivity between Barnsley and Doncaster | • Significant investment in new track (at Swinton and the Dearne Valley) is needed to enable direct services between Barnsley and Doncaster and to facilitate key inter-urban services connecting with Rotherham. | • Substantial capital costs (£100 million +) and on-going revenue cost  
• Engineering barriers associated with crossing the Dearne line at Swinton  
• Access constraints into/out of Doncaster station. |
| Improving rail access to development sites | • Need to defend development sites with rail access or potential for access. ( | • Doncaster’s rail sector has significant growth aspirations. Not all rail companies need rail access but some do. |
| Inadequate lorry parking provision          | • Overnight parking and services provision - holding areas for trucks arriving ahead of delivery timeslots  
• Develop Doncaster-wide approach to on-road parking (through the Doncaster Freight Partnership)  
• Identification of suitable locations along the motorway network to accommodate lorry parking (including overnight stay accommodation and toilet facilities) to meet future demand. | • Need to find suitable sites along motorway corridors  
• Poor location of existing facilities  
• Lack of awareness / signposting  
• Cost of facilities  
• Enforcement |
| Increasing the uptake of electric-charging points and low carbon vehicles | • Low emissions demonstration – developing a borough-wide network of electric charging points | • Signage  
• Consumer perception  
• Power cabling ranges |

\(^9\) https://www.zap-map.com/live/  
\(^10\) ECML 2020 Capacity - Timetable Assessment Report (Network Rail, 2014)
CHAPTER 2: EDUCATION & LEARNING

2.1 Education provision includes early years, primary, secondary, further and higher education. Early year’s education is provided by schools and in private, voluntary and independent sector settings. Schools and academy trusts provide primary and secondary education within the borough. The local authority has a statutory duty to ensure that there are sufficient school places for children of statutory school age. This duty sits alongside a duty to provide child care places to meet the needs of working parents (and those making the transition into work), sufficient places for 3 and 4 year olds to receive education, and sufficient places for all eligible (low income) 2 year olds. Further and higher education is provided within the borough and across the region. The planning of future education provision is undertaken using demographic and housing development data. Major new residential development increases the demand for schools places and the local authority has mechanisms in place, based on the type and mix of houses proposed, to request contributions towards new school places where extra capacity is required.

2.2 Doncaster Metropolitan Borough Council is committed to improving the number of schools that are judged ‘good’ or ‘outstanding’ by identification and intervention according to a published school improvement strategy and a number of time limited rapid improvement projects. Timely and relevant data analysis alongside appropriate support and rigorous and systematic challenge applies to all schools and academies as part of an annual risk assessment process, shared with the regional schools commissioner where appropriate.

2.3 Some areas of the borough are experiencing increasing pressure and demand on school places and have limited capacity to accommodate local pupils and new pupils generated from new housing developments.

2.4 There is a pressing need to improve the quality of education provision in Doncaster. Significant investment is required in new infrastructure to meet the educational needs of the population as well as raising levels of attainment across all ages.

Table 1: Existing education provision in Doncaster

<table>
<thead>
<tr>
<th>Type/phase</th>
<th>Age range</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant schools (all with nursery classes)/</td>
<td>4-7</td>
<td>10</td>
</tr>
<tr>
<td>Junior schools</td>
<td>7-11</td>
<td>8</td>
</tr>
<tr>
<td>Primary schools (51 have nursery schools)</td>
<td>4-11</td>
<td>81</td>
</tr>
<tr>
<td>Secondary schools</td>
<td>11-16</td>
<td>1</td>
</tr>
<tr>
<td>Secondary schools (11 have nursery schools)</td>
<td>11-18</td>
<td>16</td>
</tr>
<tr>
<td>Special schools</td>
<td>7-16</td>
<td>2</td>
</tr>
<tr>
<td>Special schools (3 have nursery schools)</td>
<td>3-16</td>
<td>3</td>
</tr>
<tr>
<td>Pupil referral units/alternative provision</td>
<td>Various</td>
<td>3</td>
</tr>
</tbody>
</table>

2.5 As at April 2016, 38 of the schools are academies, including all of the secondary schools. Of these, 20 are sponsor-led, 16 are stand-alone and 2 are part of a multi-academy trust. Seven different organisations sponsor academies.

2.6 Doncaster has a relatively poor skills profile. There are a higher percentage of residents with no qualifications compared to the Sheffield City Region and the National average. There are also a lower percentage of people with level 4 qualifications and above than the Region or England. However Doncaster does have a higher percentage of apprenticeships. A full Ofsted inspection in 2017 rated Doncaster MBC Good overall. The current skills delivery infrastructure is not well suited to reaching and up-skilling those already in the workforce whereas the trend within the economy is towards greater demand for skills and qualifications at all levels particularly at higher levels.

Meeting the demand for new school places.

2.7 The Doncaster Learning Provision Organisation service has responsibility for pupil place planning within the Doncaster area. The Organisation of Learning Provision in Doncaster report (DMBC

11 Census 2011 Key Statistics.
2017\textsuperscript{12}) provides a “framework for planning and generating the necessary resources to ensure that we meet the requirement to commission high quality learning settings” and provide appropriate environments for effective learning over the next 5 years. Including ensuring there are sufficient places for learners of all needs. The report includes local analysis (as at Spring 2019) at ‘schools pyramid’ level (17 across Doncaster). This reports that currently there are sufficient school places in Doncaster overall but there are cases at local level where supply does not meet the demand.

The main report includes projections for the number of school places required up to 2021/22 and identifies ‘gap analysis’ where a shortfall has been identified. The total Capital Budget between 2017 and 2021 is £13.6 million. These funds are being used to meet growth in the Armthorpe Hall cross, Hayfield, Rossington and Hungerhill pyramids. There is no information regarding capital funding post 2020 at present. Once known capital projects will be informed by each Pyramids Local Plan.

**Nursery & pre-school provision**

2.8 In Doncaster, there is a good choice of childcare provision across the maintained, private, voluntary and independent sectors. This includes day nurseries, pre-school playgroups, child-minders, school nurseries, breakfast, after-school clubs and holiday play schemes. Around two thirds of childcare providers in the borough are ‘good’ or ‘outstanding’, according to Ofsted\textsuperscript{13}.

2.9 Generally, there is sufficient childcare provision available to meet current and future demand but gaps remain within certain parts of the borough such as Adwick, Askern, Bentley, Denaby, Conisbrough, Mexborough, Stainforth and Thorne\textsuperscript{14}.

**Primary school provision**

2.10 Like many other areas, there is pressure on primary school places due to rising birth rates, housing development and migration. Additional primary school places are required to respond to new developments.

**Secondary education provision**

2.11 There are currently enough secondary academy places across the borough but the pressure on places is expected to increase sharply as primary aged children move into the secondary phase of education. We are committed to working with our secondary academies to provide sufficient high quality school places and help raise educational standards.

**Planned and recent projects**

**Unity Town School**

\textsuperscript{12} [http://www.doncaster.gov.uk/services/schools/school-organisation-commissioning-and-performance](http://www.doncaster.gov.uk/services/schools/school-organisation-commissioning-and-performance)

\textsuperscript{13} Inspection of Doncaster local authority school improvement support (Ofsted, 2015)

\textsuperscript{14} The borough currently has a 13% childcare penetration rate (i.e. the number of childcare places per 100 children). This is broadly in line with regional and national averages. However, nine areas are below the 12% benchmark: Adwick, Askern, Denaby and Conisbrough, Mexborough, Stainforth, Bentley, Wheatley and Thorne (Childcare Sufficiency Assessment, Doncaster Metropolitan Borough Council, 2014).
2.12 Unity Town will require a minimum of a two-form entry primary school that will serve the new housing and mixed-use developments within The Unity project near Hatfield and Stainforth. The site is within the masterplan to the north of the existing railway station in Stainforth.

2.13 Alongside the school, there will be other new community facilities as well as commercial uses such as shops. It is anticipated that these uses will happen later in the Unity development (post 2029), at which time there will be a critical mass of development to support the uses. This will create a hub of activity that will serve the new mixed-use community.

New College Doncaster

2.14 New College Doncaster, a 16-19 free sixth form college, provides academic and vocational learning and progression opportunities to around 1,200 students in association with New College, Pontefract. The programme will include A levels and a suite of vocational qualifications to raise skills levels in the borough. These will include science, technology, engineering and maths to support the development of engineering skills in the region. New College Pontefract has set up an academy trust to lead and co-ordinate the project. The college is a separate building on the site of the existing Hayfield School.

Fig. 6: Secondary catchment areas

XP Schools

2.15 The XP schools are part of the governments free school programme. XP West opened in 2015 and XP East followed in 2017. They are based on the charter school model with ‘project-based’ learning in smaller class sizes. There are approximately 700 places at the two sites.

15 http://www.xptrust.org/
Knowledge District

2.16 A new knowledge district is emerging within the heart of Doncaster, centred on new education and research institutions (e.g. National Institute for Infrastructure, National College for High Speed Rail, Advanced Engineering and Design University Technical College) and a growing cluster of engineering and rail firms. The central aim is to transform Doncaster into a hub of knowledge and enterprise where companies and industries can flourish with highly skilled workers and investment.

Advanced Engineering & Design University Technical College

2.17 The new college will be located in the town centre on the site of the former ‘Council House.’ Opening is set for September 2020 and it will offer full-time technical courses at both GCSE and A level to 750 students aged 14-19 (150 in the first year of opening).

2.18 Working collaboratively between major employers, University of Sheffield and other partners, Doncaster UTC seeks to create innovative and engaging learning environment and unique learning experience that can equip young people with the skills and qualifications required to enter higher education and employment. Students will work with a range of employer partners and a university sponsor to bring the curriculum to life through applied learning. The curriculum will be split between STEM subjects (Science, Technology, Engineering, Maths), and vocational-based learning that offer technical specialisms using the latest technology and equipment from employers and industry representatives, centered on the advanced engineering, rail and digital design sectors.

2.19 The achievement of 16-to-19-year-olds in Doncaster is mixed. While young people on vocational courses generally achieve well, the outcomes for A-level students remain below the national level. The vast majority of the secondary academy schools in the authority offer academic provision to 16-to-19-year-olds and too few students achieve the required grades.

2.20 Doncaster has one of the lowest higher education participation rates in the Yorkshire and Humber region and lies within the bottom 12 local authorities in England, with only 1% of graduates from Doncaster returning after graduation. Between 1-in-5 and 1-in-4 of Doncaster’s young people are not in jobs or formal education and training.

Doncaster College

2.21 Doncaster College is the largest provider of further education in South Yorkshire and one of the largest providers of higher education in the region. Currently around 20,000 students with over 1000 part-time and full-time courses.

2.22 Across its two main campuses, the college employs around 1,000 staff and accommodates students aged 16 and above. Its main campus (known as “The Hub”) is located in the centre of Doncaster at the prestigious waterfront site, off Chappell Drive. The University Centre, the Hub's sister campus, is at High Melton, six miles west of Doncaster. The campus is home to many of the college’s higher education courses, and houses the Doncaster Business School, Faculty of Arts, Stables Conference Centre and Britain's first centre of excellence for relationship studies - the Relate Institute. This is the first step toward university status. Most of these qualifications are based on those taught at the University Of Hull.

2.23 The college plans to move the university centre from its existing base at High Melton to “The Hub” campus at the Waterfront.

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16 https://www.doncasterutc.co.uk/about-us/
17 https://wearedoncaster.co.uk/news/home-for-doncaster-s-university-technical-college-agreed/
18 Inspection of Doncaster Metropolitan Borough Council’s arrangements for supporting school improvement (Ofsted, 2015)
National College for Advanced Transport and Infrastructure.

2.24 The National College for Advanced Transport and Infrastructure provides specialist vocational training for the future generations of engineers. The new college, opened in 2017. It is across two campuses: Birmingham Science Park and Doncaster Lakeside. Doncaster won the bid on the back of its links to established rail and engineering industries and its railway heritage.

2.25 The College will develop the highly skilled workforce needed to build, operate and maintain the new high-speed rail network (HS2) and other infrastructure projects such as HS3. The College has the capacity for over 1000 students with a curriculum based on four specialist pathways: track rolling stock; railway infrastructure; traction power supply and distribution and business management and operation planning. These facilities will include a 1,900 square metre workshop area, external track, teaching classrooms, informal learning areas, open project spaces, a 120-seat capacity lecture area, seminar and meeting rooms and an atrium social area open to the public.

2.26 The college is on a 1.2-acre site at Lakeside, some 1.5 miles from the town centre. It is within walking distance of other major firms in the rail industry such as Network Rail, Trackwork Moll, DB Schenker, SPL Powerlines SES and the new £70 million Hitachi rail maintenance facility, offering easy access for employers and students from across the UK.

Fig. 7 National College for Advanced Transport and Infrastructure

National Institute for Infrastructure, Construction and Engineering

2.27 As part of the proposed Sheffield city region devolution deal, Doncaster is set to become the home of the new National Institute for Infrastructure, Construction and Engineering which will deliver the high-level skills (e.g. rail engineering, transportation and construction) required to provide a skilled workforce in line with the government’s National Infrastructure Plan19.

2.28 Aligned with the Doncaster-based National College for High Speed Rail, the National Institute Infrastructure, Construction and Engineering will act as a foundation school providing vital high quality teaching and training (science, technology, engineering and mathematics) and a centre for applied innovation to become a key economic driver for the UK, from a northern powerhouse base.

2.29 The intention is to establish the National Institute for Infrastructure as a pathfinder for the government’s “national institutes of technology” network to deliver high-standard education and skills

19 Sheffield City Region Devolution Agreement
provision across the UK. The new institute will help establish a UK centre of excellence for road, rail, and aviation infrastructure, construction and engineering, forming a vital component of the Sheffield city regions advanced manufacturing innovation district and helping support the government’s wider ambitions to rebalance the national economy through the “northern powerhouse” initiative. The institute will provide opportunities for around 1000 students, including apprenticeships. It will focus on level 4 and above qualifications, though provision at partner teaching providers will ensure that all levels (from 1 to 5 plus) are adequately covered.

**Bader Academy**

2.30 The academy is a new 100 place special school due to open in Edenthorpe in the 2020/2021 academic year. It will meet the needs of children and young people aged 5 -19 who have communication and interaction needs. Planning permission was granted in 2019 and construction is well under way as at February 2020.

**Future interventions to plug gaps in provision**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Future interventions / aspirations</th>
<th>Barriers</th>
</tr>
</thead>
</table>
| Significant gap in skills compared to regional and national average | • University with independent status  
• Move campus from High Melton to town centre  
• Creation of an advanced engineering park close to M18 and airport  
• Creation of an energy and technology park close to the former colliery at Hatfield/Stainforth  
• Logistics academy and world trade centre (based at the iPort) | • Funding  
• Aging workforce  
• Educational attainment  
• Low levels of aspiration  
• Limited job opportunities  
• Recruitment |
| Gaps in childcare provision | • Provision of new facilities and centres (day nursery, playgroup, before school and after school and holiday groups etc.) | • Recruitment  
• Funding |
| Gaps in primary school provision (hot-spots) | • Appropriate contributions will be sought from developers towards the provision of extra school places to meet demands arising from new housing development  
• Priority School Building Programme | • Development viability |

**CHAPTER 3: GREEN INFRASTRUCTURE**

**Issues & challenges**

3.1 Doncaster contains a wide variety of open spaces and recreational assets that serve different functions and roles such as country estates, parks and gardens, wildlife sites, pedestrian and cycle routes, waterways, wetlands and woodlands. Open spaces and farmland covers approximately two thirds of the total land area. Together these assets form the backbone of Doncaster’s green infrastructure network.

3.2 This network extends into neighbouring areas and links these assets together to form extensive green corridors that run between existing built-up-areas and the open countryside, but parts of it are under increasing pressure from development, climate change and intensive agricultural practices.

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20 [https://www.baderacademy.org/about](https://www.baderacademy.org/about)

21 Doncaster Early Years and Childcare Service: Childcare Sufficiency Assessment (Doncaster Metropolitan Borough Council, 2014)
3.3 In collaboration with Natural England, a hierarchy of green infrastructure corridors are identified across the borough where green infrastructure provision will be prioritised (see figure 7 above). The corridors are categorised as regional, sub-regional, district and local, reflecting their geographical extent and the amount of functions relating to them.

Greenspaces

3.4 Doncaster has over 5,700 hectares of greenspace about 10% of the borough. Greenspace provision also varies considerably across the borough. Some types of greenspace (e.g. informal play areas, parks and sports fields) are needed in several communities. Developers will therefore, be expected to contribute towards the provision of greenspace.

3.5 Long term investment priorities include:

- improvements to greenspaces within close proximity to the town centre such as better signage, lighting and new links (e.g. Cantley Park, Haxtorpe Park and Sandall Beat Wood);
- improvements to existing recreation areas (St Mary’s, Tickhill);
- new allotments/food-growing areas (e.g. Tickhill and Armathorpe); and
- new open spaces within large-scale housing developments (e.g. Unity and Rossington Colliery);

Green routes

3.6 Doncaster has over 500 kilometres of public rights of way (footpaths, bridleways and tracks), ranging in length from a few metres to long distance routes. The character of the rights of way network varies too, from formal urban paths to completely rural routes. Parts of the public rights of way network remain fragmented (e.g. between Marr and Hickleton/Brodsworth and the areas surrounding Braithwell, Stainton, Tickhill and Wadworth, Finningley, Auckley and Blaxton) and have limited or no access to the open countryside. Around 1500 hectares of open access land has been designated at

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22 These corridors have been derived from Natural England’s Yorkshire and Humber Mapping Project.
Thorne and Hatfield Moors, Wet Holt and Sandwith Hill.

3.7 Long term investment priorities include:

- protecting, maintaining and enhancing the quality and condition of existing routes (e.g. Trans Pennine Trail and urban routes to adoption standard) and links between leisure and cultural designations and town centres (e.g. Lakeside, Doncaster Racecourse and Sandall Beat Wood);
- creating new routes where appropriate and where opportunities arise, with priority given to multi-user routes;
- increasing and widening access to open moorland (i.e. the Thorne moor is relatively isolated so usage is limited) and other attractions that have limited or no access at present (including council-owned sites);
- improving the accessibility and safety of the public-rights-of-way network, especially to those with mobility problems (e.g. provision of crossing facilities along busy roads or safe alternatives);
- improving designation details and other signage information (e.g. river and canal routes);
- improving roadside and footpath verges to benefit vulnerable road users, notably along major arterial routes; and
- attracting more visitors to use the Trans Pennine Trail and tributary routes.

Trees & woodland

3.8 Doncaster has a relatively small proportion of woodland relative to its size. More trees need to be planted in dense urban areas, especially within deprived areas and town centres. A number of former collieries in and around Doncaster have been transformed into community woodlands, planted with deciduous and coniferous trees such as Brodsworth, Bentley. Woodfield Park, located in the grounds of St Catherine’s Hospital, is also a community woodland.

Strategic projects and areas

3.9 Doncaster requires major investment in green infrastructure such as open spaces, flood defences and woodland to support the needs of a growing borough, mitigate and allow the natural environment to adapt to the impacts of climate change.

3.10 Some of the key projects (both existing and planned) are listed below. The multi-functional benefits of these projects will spread beyond the immediate area at a landscape scale. Please note some projects are aspirational in nature and will require long lead-in times, while others are more advanced.

Landscape-scale conservation projects

3.11 The government’s Biodiversity 2020 Strategy outcomes require measures to:

- protect, restore and enhance priority habitat condition;
- create priority habitat to address fragmentation issues and increase their extent;
- deliver integrated and joined-up approaches to safeguard ecosystem services (e.g. Nature Improvement Areas); and
- restore degraded ecosystems to contribute to climate change mitigation and adaptation.

3.12 A number of ‘landscape-scale’ partnership-driven conservation initiatives have emerged to deliver these outcomes, all providing multiple benefits such as biodiversity, public health and wellbeing, pollination, climate change mitigation and adaptation, tourism, the creation of attractive settings for investment and development of green enterprise opportunities. This approach was reinforced by the Government in ‘A Green Future: Our 25 Year Plan to Improve the Environment’ which includes...

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23 Further information about these projects is outlined in the Doncaster Green Infrastructure Strategy and Doncaster Public Rights of Way Improvement Plan.
policies to; Use and manage land sustainably; Recover nature and enhance the beauty of landscapes; and Connect people with the environment to improve health and wellbeing. Underpinning the detailed policies is the need for a ‘Nature Recovery Network’, which will be formed by our valued Green Infrastructure assets and will be a focus for delivering an enhanced environment for wildlife and opportunities for people to contribute to lasting conservation. Examples landscape-scale initiatives that will be core components of our emerging Nature Recovery Network include:

**Dearne Valley Green Heart (DVGH)**

3.13 The Dearne Valley Green Heart area is the focus of landscape-scale conservation and is one of England’s original twelve Nature Improvement Areas. The partnership continues to focus on restoring, creating and connecting the area’s grassland, wet woodland and floodplain habitats and promoting opportunities for community education and participation in the natural heritage of the Dearne valley.

3.14 The project area (as defined in figure 8) extends over 16,000 hectares from Cudworth in Barnsley to Adwick on Dearne in Doncaster and includes improvements to priority habitats and conservation assets such as Old Moor Wetlands, Trans Pennine Trail and the river Dearne, and in particular enhancing the biodiversity of washlands and reclaimed industrial areas. At its core will be 1300 hectares of reed bed, wet grassland, wet woodland and woodland, with a 2690 hectares buffer area of farmland, amenity grasslands, and reclaimed industrial areas. The partnership aims is to link up core areas and target farmland areas to improve ecological diversity.

![Fig. 9: Location of the Dearne Valley and the Dearne Valley Heart](image)

3.15 The overall vision of the project is to transform the valley into a place where people and nature thrive together, a place where people want to work, live and enjoy leisure. This vision will continue to be delivered through the DVGH Partnership using all available resources, which until recently have included a Heritage Lottery Fund Landscape Partnership project. This project has worked with local groups in restoring and protecting listed buildings and key environmental sites. The impact and importance of industry on the landscape will be highlighted through a range of surveys and community projects. Grants provide support to local community groups in helping deliver the aims and objectives of the DVLP. Projects are supported across the area with an emphasis on developing sustainable skills and activities so that the DVLP has an impact beyond its lifetime.

**Southern Magnesian Limestone Ridge**

3.16 The Don Gorge, where the river Don cuts through a belt of the magnesium limestone in the west of the borough, is picturesque steep-sided valley with small caves, crags and quarries. It is a site of special scientific interest (SSSI) and regionally important nature reserve with grasslands, wetland and woodland. The Trans Pennine Trail national route runs through the Gorge.

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24 Valuing Ecosystem Services: Case Studies from Lowland England: Dearne Valley Green Heart: Yorkshire (Natural England, August 2012)
3.17 Opportunities exist to improve rights of way and landscape, geodiversity and biodiversity assets in the area. It is popular for walking, fishing and cycling. Future programmes could also complement green infrastructure projects out of the strategy area such as at Cresswell Crags in Worksop.

3.18 The Don Gorge Partnership aims to promote the conservation, protection and improvement of the physical and natural environment of the area and advance the education of the public in the conservation, protection and improvement of the physical and natural environment.

**Doncaster Green Gateway**

3.19 The Green Gateway project is identified in Doncaster’s Green Infrastructure Strategy and aims to develop an integrated and continuous network of high quality and well-managed green spaces and links between the Doncaster town centre and open countryside encompassing the world-famous Doncaster racecourse, Sandall Beat Wood and Potteric Carr nature reserve SSSIs and local nature reserves. It offers the opportunity to create a vibrant and attractive green gateway into the heart of Doncaster along key transport routes (M18 motorway, A18 and A638) and open spaces.

**The Humberhead Levels**

3.20 An internationally important area of protected lowland raised mire and heathland in the southern part of the Humberhead Levels National Character Area, with its component parts (Goole Moors, Crowle Moors, Rawcliffe Moors, Thorne Moors and Hatfield Moors). The moors form the largest example of lowland raised mire in Britain and are valuable to wildlife. Natural England and the Lincolnshire Wildlife Trust own and manage the Moors and work in partnership with others to deliver coordinated action for nature conservation and multiple environmental benefits. Many of the species present on the moors are rare and the unique habitats that support them have special protection.

3.21 Natural England is completing conservation interventions and restoration work on the precious lowland raised mire habitat of Thorne and Hatfield Moors, within the Humberhead Peatlands National Nature Reserve. This will enable peat-forming vegetation to re-establish on the degraded peat bog surface and ensure both moors achieve a favourable condition. The project also aims to increase the European nightjar population by 15% from the current population of 80-88 territorial males. The Yorkshire Peat Partnership has secured funding to continue this work, in partnership with Yorkshire Wildlife Trust and Natural England.

3.22 The Humberhead Levels has long been a focus of landscape-scale conservation and became one of England’s original twelve Nature Improvement Areas. The overall vision of the Humberhead Levels Partnership is to work together to create an internationally renowned, unique wetland landscapes, supporting thriving communities, economy and wildlife. The vision and long-term delivery plan will be implemented through all available resources, which at present include a Heritage Lottery Fund Landscape Partnership Project for the Isle of Axholme and Hatfield Chase and LIFE+ project.

**Catchment based approach partnerships**

3.23 These are multi-agency partnerships formed resulting from a government policy framework that empowers local action to improve the water environment and deliver Water Framework Directive objectives. The partnerships focus on catchment-wide issues and opportunities to deliver a range of benefits to society from drinking water supply and fisheries management, to providing for business and agricultural needs, transport routes, biodiversity conservation and a recreational resource. The landscape-scale catchment partnerships operating across Doncaster include the:

- Don Network (under the auspices of the Don Catchment Rivers Trust);
- Idle and Torne Catchment Partnerships.

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25 The moor is designated as a Site of Special Scientific Interest. It is a Special Protection Area, Special Area for Conservation and also a National Nature Reserve. The moors are also rich in archaeology.
3.24 A number of grant funded projects and initiatives, such as the recently completed DCRT Heritage Lottery Landscape Partnership project, are delivering environmental benefits, in this case a signing and improving a long distance trail between Doncaster and Sheffield, amongst other things.

Doncaster town centre public realm improvement programme

3.25 Substantial work is underway to improve the quality of the public realm and street scene in and around Doncaster town centre such as the Cultural and Civic Quarter and markets area. The town centre will be undergoing a series of improvement works as part of a coordinated and phased approach to public realm including:

- a major refurbishment of the markets including new paving, stalls and landscaping to create a more vibrant location, increase footfall and attract new small businesses into the area which has recently been completed;
- a major refurbishment of the existing station forecourt is underway and involves the relocation of car parking, reuse of redundant/derelict buildings and creation of a new public space and entrance into Doncaster (St Sepulchre Gate West);
- public realm works to the existing highway (Waterdale) adjacent the new Sir Nigel Gresley Square (Civic and Cultural Quarter); and
- major refurbishment and enhancement of existing streets and footways around Hallgate, Cleveland Street and Silver Street is currently underway and includes new paving and lighting to increase the attractiveness of this area and increase footfall/retail usage (Quality Streets).

Green Spine

3.26 The Green Spine is a cycle and pedestrian route that will incorporate north-south link from Potteric Carr nature reserve to Sandall Beat Wood / Shaw Wood, bringing the open countryside into the heart of the urban area. This project aims to connect existing greenspaces and visitor attractions (e.g. Doncaster Racecourse and Town Moor) and provide better links across major roads that dissect the area. It will create a continuous green network so that people can easily move around the area without facing barriers in an attractive visual setting.

3.27 In places, the Green Spine will be segregated from traffic to improve the safety of pedestrians and other users, especially where there is high vehicle usage. The route will be lined with native trees or hedgerows to improve legibility of the network, wherever possible.

3.28 There are no cost estimates at present. It is anticipated that the project be funded through a combination of public and private sources including pooled developer contributions from within the study area.

Future interventions to plug gaps in provision

<table>
<thead>
<tr>
<th>Issue</th>
<th>Future interventions / aspirations</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenspace shortfalls in most areas</td>
<td>• Use of developer contributions and levies</td>
<td>• 13% of areas are deficient in all types of green space, with only one community having sufficient provision in all green space categories.26</td>
</tr>
<tr>
<td></td>
<td>• Grant funding</td>
<td>• Lack of up-to-date evidence on the quality and condition of greenspaces (including playing pitches), trees, species and habitats</td>
</tr>
<tr>
<td></td>
<td>• Revenue funding</td>
<td></td>
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<tr>
<td></td>
<td>• Partnership working</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Landscape-scale projects</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Prioritise hubs and spokes along the green network to maximise multiple benefits</td>
<td></td>
</tr>
</tbody>
</table>

Relatively low levels of leisure and recreation participation and customer satisfaction

| | Developing a network of high quality community and recreational facilities such as new gyms and health centres within or close proximity to existing accessible green spaces | Poor eating habits and lifestyle (high prevalence of overweight and obese people) |
| | Maximise co-location opportunities (e.g. joint services, multi-activity and meeting areas etc.) | Access to community and recreational facilities (varies considerably across the borough) |
| | | Socio-economic factors (e.g. low income levels) |
| | | Lack of education and awareness |

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26 Doncaster Greenspace Audit (Doncaster Metropolitan Borough Council, 2011)
### Issue

<table>
<thead>
<tr>
<th>Lack of tree coverage / adequate woodland infrastructure</th>
<th>Future interventions / aspirations</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Strategic tree and woodland planting</td>
<td>• The ‘Northern Forest’ initiative</td>
<td></td>
</tr>
<tr>
<td>• The ‘Northern Forest’ initiative</td>
<td>• New and improved signage, maps and interpretation leaflets etc.</td>
<td></td>
</tr>
<tr>
<td>• Tree surveys</td>
<td>• Tree surveys</td>
<td></td>
</tr>
<tr>
<td>• Refurbish/enhance pathways and surface car parks</td>
<td>• The lowest density of tree canopy coverage corresponds to some of the more deprived areas of the borough</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lack of understanding about the distribution, function and condition of trees.</td>
<td></td>
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<table>
<thead>
<tr>
<th>Lack of appropriate management on public sites and landholdings</th>
<th>Future interventions / aspirations</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Invest in updated survey information</td>
<td>• There is a lack of up-to-date survey information sites.</td>
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<tr>
<td>• Work with Streetscene, Communities and partners to develop appropriate management regimes</td>
<td>• There is a lack of evidence for species populations and habitat condition monitoring</td>
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<tr>
<td>• Encourage private landowners to develop appropriate management regimes</td>
<td>• Explore different approaches and partnerships to deliver land management (e.g. Net Gain schemes, or Management Agreements with third parties)</td>
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<tr>
<td>• Grant funding and commuted sums</td>
<td>• Partnership working</td>
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<table>
<thead>
<tr>
<th>Lack of connectivity between greenspace assets, visitor attractions and the open countryside</th>
<th>Future interventions / aspirations</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Encourage the creation of additional GI within major developments</td>
<td>• Distinct void in network in the south west of the borough.</td>
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<tr>
<td>• Encourage opportunities for the creation of accessible biodiversity (and geodiversity) assets within the disused and active quarries</td>
<td>• Limited access on public rights of way network for less mobile.</td>
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<tr>
<td>• Work with partners to encourage the creation of new assets and appropriate interpretation</td>
<td>• Doncaster Greenway cycle track surface is not suitable for equestrians.</td>
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<tr>
<td>• Identify ‘Nature Recovery Networks’ as a focus for biodiversity conservation interventions.</td>
<td>• Lack of promotional information.</td>
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### CHAPTER 4: HEALTH & SOCIAL CARE

**Issues & challenges**

4.1 Doncaster is one of the 20% most deprived areas in England where around 24% of children live in low-income families. The levels of poverty and disadvantage vary significantly across the borough and this raises many challenges for health and social care. Child poverty rates are 21% against the England average of 16.6%.

Doncaster is one of the least active places in England with slightly less than 60% of residents achieving the recommended 150 minutes of physical activity per week.

The deprivation of the area affects life expectancy. People in the least deprived areas live longer than people in the most deprived wards (9 years for men and 6.2 years for women). This is still 2 years below the England average.

Doncaster faces many challenges having higher than average rates for many health indicators including Obesity (71.5% are overweight or obese), Teenage Pregnancy Rates (27.6 per 1,000, although still high, the trend is downwards), Smoking at time of Delivery (15.6%), Breast feeding initiation (61.3%) and those Killed or seriously injured on the roads stands at 15.3, nationally 11.4.

Doncaster’s population makes a higher utilisation of outdoor space at 19.3% compared to the average of 17.9%.
4.2 Doncaster’s long term priorities include tackling obesity and smoking, reducing the number of hospital alcohol related stays and reducing health inequalities. Further information about Doncaster’s health is available from our website at www.doncaster.gov.uk/services/health-wellbeing.

Emergency services

4.3 Rescue services in Doncaster are operated by the South Yorkshire Fire and Rescue Service. It currently has six fire stations covering the borough (Adwick, Askern, Thorne, Edlington, Doncaster and Rossington).

4.4 South Yorkshire Fire and Rescue Authority are dependent on central government to provide up to 60 per cent of its funding and faces significant reductions in the current period. The authority is seeking to consolidate and rationalise existing services rather than build new fire stations and rescue pumps. There are no plans to shut or rationalise existing fire stations in the borough. The authority may require extra vehicle bays in certain areas to accommodate units as the move across the borough.

4.5 Currently, there are two ambulance stations operating in the borough – one on Clay Lane West (Doncaster) and one on Yarborough Terrace (Bentley). The current stations are no longer fit for purpose as a base to deliver modern health services to the public and an alternative approach to providing the required emergency services is currently under review. In addition, Yorkshire Ambulance Service also uses the existing fire station at Edlington as a temporary ambulance base.

4.6 Yorkshire Ambulance Service requires a new ambulance station in the borough in order to meet nationally set response targets, preferably further south of where the facilities are currently located. Additional emergency service facilities are needed to address future population increases. In the longer term, some of the larger development sites in the borough (e.g. Unity and Rossington Colliery) could provide an opportunity to create ‘service hubs’ where multiple services (fire/police/ambulance) can be integrated and consolidated in one place.

Health care services & facilities

4.7 There are a range of different types of health care service provision covering both primary care (general practices, pharmacy, dentists and ophthalmologists) and secondary care (hospitals). Many are provided privately or quasi-privately on an opportunistic and demand-responsive basis. For the National Health Service (NHS), the majority of health services are accessed via general practitioners (GPs) who act as a gateway to other NHS services. There is an increasing role for foundation trusts and private providers to shape the infrastructure of health care services. Rotherham Doncaster and South Humber NHS Foundation Trust (RDaSH) operates services in 200 locations across Rotherham, Doncaster, North Lincolnshire, North-East Lincolnshire and Manchester.

4.8 Launched in April 2013, the Doncaster Clinical Commission Group is responsible for organising and commissioning health services across the borough on behalf of NHS England. The group is a member-led organisation comprising all of the GP practices in the borough, with delegated responsibility to manage budgets of over £550 million per annum. It is also a sub-committee of the Doncaster and Bassetlaw NHS Foundation Trust.

4.9 The trust currently runs two hospitals in Doncaster: the Royal Infirmary Hospital in central Doncaster and Montagu Hospital in Mexborough. Each year, the trust treats around 150,000 patients along with 95,500 accident and emergency patients. Both hospitals have benefitted from significant capital investment in recent years such as a new day care surgery and clinical unit (Doncaster Royal Infirmary) and a new rehabilitation centre (Montagu Hospital) and refurbishment of existing facilities (e.g. accident and emergency centre). Despite recent improvements, there is still an on-going need to improve and upgrade the quality of health care facilities across these sites.

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27 The Joint Strategic Needs Assessment is the key document driving the commissioning of health and health care services across the borough.
28 South Yorkshire Fire and Rescue Service Strategic Plan. http://www.syfire.gov.uk
29 “Looking forward to our future” (Doncaster & Bassetlaw Hospitals NHS Foundation Trust, 2013)
4.10 Doncaster Royal Infirmary is a large district hospital with over 800 beds and a 24-hour accident and emergency department. However, it requires significant further investment in physical infrastructure to ensure there is sufficient capacity to meet the needs of patients and improve the quality of existing clinical accommodation, including its existing surgical specialties (e.g. trauma and orthopaedic wards) and general outpatient services, as well as enhance the overall patient and visitor experience. The long-term vision of the trust is to develop the Doncaster Royal Infirmary site “as both the local district general hospital for the Doncaster area but also as the primary location for the delivery of specialist services, particularly those that are interdependent and which build critical mass”. As part of this, the trust is examining the feasibility of undertaking comprehensive hospital redevelopment at the site, including the provision of a new main entrance alongside improved retail and catering facilities.

4.11 Montagu Hospital is a small hospital that serves the Dearne Valley area and includes an outpatients department, minor injuries unit, a new day care facility and ward area. The trust will continue to invest in new services and equipment at Montagu Hospital to help realise its vision of becoming a centre of excellence in rehabilitation services alongside a wide range of other day care, ambulatory and outpatient services.30

Fig. 10: Pharmacy locations in Doncaster and in close proximity to its boundaries

4.12 Doncaster also has a range of modern primary care centres (incorporating general practitioner surgeries, pharmacies and other supporting services and facilities), neighbourhood hubs and small community health centres, primarily within areas of rising health demand. A major capital investment programme helped deliver these projects.

4.13 Doncaster has a similar number of pharmacies per head of population compared to South Yorkshire and England as a whole. The main urban area of Doncaster has a higher rate of pharmacies per head of population compared to local and national averages. Northern and eastern parts of the borough have a similar rate to the average. Communities in the south of the borough generally have a lower rate per head of population but there are two dispensing doctor surgeries within this area.

4.14 Doncaster straddles multiple neighbouring authorities so it is important to factor these into pharmacy access. Communities in the west and north also benefit from access to pharmacies in Bassetlaw, Rotherham, Barnsley and Wakefield authorities. There are no neighbouring pharmacies within a one-mile radius of the border to the northeast and east due to the rural nature of these areas, although there is some pharmaceutical provision a little further afield.

30 Doncaster Joint Strategic Needs Assessment (Doncaster Data Observatory, 2014)
4.15 Pharmacy provision in the borough is generally accessible and within an acceptable travel range. Patient experience is good but there are areas where improvements could be made including increased weekend opening, parking, waiting times and availability of stock. There also remain gaps in provision in certain parts of the borough where “no service exists” and/or there is an “identified high level of need”. These include:

- 100-hour pharmacy in the south of the borough and cross border services to Bassetlaw and Rotherham – there appears to be no provision currently in this area;
- appliance use reviews (coverage is low in some communities that suffer from acute health problems such as Mexborough, Askern Woodlands and Highfield and parts of Bentley);
- minor ailment services (notable gaps exist in Mexborough, Rossington, Askern, Bawtry, Tickhill and Branton/Auckley/Finningley/Blaxton);
- palliative care provision in the south (the majority of services are in the central area); and
- needle exchange services in Stainforth and northern areas (Carcroft, Highfields and Bentley).

Future interventions to plug gaps in provision

<table>
<thead>
<tr>
<th>Issue</th>
<th>Future interventions / aspirations</th>
<th>Barriers</th>
</tr>
</thead>
</table>
| Continued need to improve emergency services and associated infrastructure | • Rationalisation of existing fire and health services  
• Set aside land to accommodate a new ambulance station  
• Continuing refurbishment and redevelopment of existing hospitals | • Doncaster has a number of vulnerable populations who are likely to need and access adult social care and health services to continue with their everyday living especially those who have disabilities and over the age of 65. |
| Gaps in pharmaceutical provision | • Area-based improvements (based on survey results)  
• Review every three years | • Funding / resources  
• Access to services |

CHAPTER 5: FLOODING & DRAINAGE INFRASTRUCTURE

Issues & challenges

5.1 Doncaster has a long documented history of flooding from a variety of sources, primarily because of its geographic location, topography and the series of watercourses that pass en-route towards coastal areas. It is estimated that one fifth of England drains through the borough of Doncaster. The impact of flooding presents a risk to people, infrastructure and buildings, and to Doncaster’s cultural and environmental heritage. Furthermore, climate change and extreme weather events, rising sea levels and surface water run-off from future development will exacerbate the threat of flooding on people, land and property in the borough (much of which lies below sea-level) over the coming years.

5.2 Large areas of the borough (see figure 7 below) are located in areas at moderate or high risk of flooding. They include parts of the main urban area of Doncaster, Mexborough, Conisbrough, Sprotbrough, Kirk Sandall, Bentley, Toll Bar and other small settlements in the north and central parts of the borough and smaller areas associated with the rivers Don and Dearne in the west and the Torne in the south (flood zones 2 and 3). Areas such as Bentley, Arksey and Toll Bar, which are low-lying, were originally marshland and current arrangements for managing flood risk rely on raised defences, upstream storage and pumped drainage. The floods of 2007 and 2019 illustrated that surface water flooding is an issue within many areas parts of the borough.  

32 More detailed information on the scale and nature of flood risk within the borough can be found within the latest Strategic Flood Risk Assessment (see www.doncaster.gov.uk/localplan).
5.3 Where possible, mechanisms to reduce the risk of flooding are in place. These mechanisms aim to assist floodwater on its natural route to the coast, but do not remove the risk of flooding in Doncaster. Flooding cannot always be prevented; however, concerted efforts are made to reduce the risk of flood events. In this context, it is important to consider a variety of flood risk management options, rather than assume that increased flood defences represent an effective solution.

Planned projects

5.4 Appendix 1 provides a table of the environment Agency planned projects that impact on the Doncaster area. The total cost of the planned works is approximately £215 million.

5.5 New development within flood risk areas will be expected to investigate/assess the potential risks from all known sources of flooding and demonstrate how these risks can be managed. Mitigation measures will be needed and developers will need to ensure that appropriate evacuation and flood response procedures are in place. All new development will be expected to incorporate water management measures to reduce surface water run-off (e.g. sustainable drainage systems) and ensure that it does not increase flood risk elsewhere.

Future interventions to plug gaps in provision

<table>
<thead>
<tr>
<th>Issue</th>
<th>Future interventions / aspirations</th>
<th>Barriers</th>
</tr>
</thead>
</table>
| Development within flood risk areas | • Flood monitoring and warming systems  
  • Review multi-agency flood plans  
  • Produce updated policy guidance (SPD) | • Flood defences are costly to maintain and improve  
  • Gaps in information - results of EA’s flood modelling work are awaited |
| Surface water flooding            | • Sustainable urban drainage systems (in association with new development) | • Gaps in information - results of EA’s flood modelling work are awaited |
CHAPTER 6: COMMUNITY, SPORT & CULTURAL FACILITIES

Issues & challenges

6.1 Levels of sport and recreation activity are steadily increasing in Doncaster and are close to the national and regional averages. Around a quarter of adults in Doncaster are active at least three times a week. Over a third of adults are active at least once a week and over half of adults do no physical activity and sport at all. However, around half of adults surveyed said they wanted to start playing sport or do a bit more.

6.2 Doncaster has a reasonable supply of sport and recreational facilities. The majority of wards in the borough have at least one multi-use play area but a small number of wards (e.g. Askern Spa, Balby, Edenthorpe, Finningley, Great North Road, Hatfield, Sprotbrough, Wheatley and Bawtry) have no or very limited provision. Sport and recreation activity is estimated to be worth over £106 million to the Doncaster economy and employs well over 2000 people across the physical activity and sport sectors. However, urgent action is needed to increase participation and widen access to sport and recreation facilities in the interests of promoting healthier and more active lifestyles. Doncaster has relatively high levels of obesity and ill health. Almost two thirds of adults and a third of children are either obese or overweight. Admissions to hospital with a primary diagnosis of obesity is double the national average.

6.3 Further housing development will place significant pressure on our existing physical and social infrastructure such as libraries, pubs, sport venues, youth clubs and post offices. Doncaster is well served with community facilities especially within the large towns such as Mexborough, Bawtry, Thorne, Rossington and Arnhem and the main urban area. However, some of the large villages and service centres in the rural hinterland have relatively few community facilities or meeting places such as Norton, Finningley, Denaby, Toll Bar, Adwick upon Dearne and Hayfield Green. Wherever possible, community facilities should be within existing settlement centres.

6.4 Doncaster has three branch libraries, including a large central library, and 21 community libraries (the running of which have been handed over to volunteers). Like most parts of the country, library usage has fallen significantly in recent years but it remains well below the national average due to a lack of trained staff, branch closures and a shortage of new books. Doncaster published the ‘Public Libraries Strategy 2018-2021 in 2018.

6.5 There is currently a lack of high quality conferencing facilities and meeting rooms in the borough. Doncaster town centre also has a shortage of large modern units capable of attracting supermarket chains and other major high street multiples.

6.6 In many areas, community centres/village halls provide a focal point of community life, especially within the smaller villages. Local community groups typically own or manage them on behalf of their communities, providing a range of opportunities such as social activity, sports, arts and recreation, and access to services that would otherwise not be available.

35 Doncaster Local Plan: Settlement Audit (Doncaster MBC, December 2015)
36 http://www.doncaster.gov.uk/services/libraries/doncaster-libraries
37 Doncaster Library and Information Strategy (2011-2015). A new library strategy from 2016 onwards will look to increase innovative ways of delivering books and reading to the public in Doncaster such as library access points at new and different locations, click and deliver services and home delivery services.
Planned projects

Civic & Cultural Quarter

6.7 The Civic and Cultural Quarter (CCQ) forms a key element of a wider plan to re-vitalise and regenerate Doncaster town centre. The £300 million development is to be delivered in four phases over 6-8 years. It covers around 22 acres, which includes Waterdale and the area around the former council house and the former Doncaster College site. Figure 11 below shows the masterplan for the area. The scheme secured outline consent in 2009.

6.8 The first phase saw the development of new civic offices, a new performance venue CAST, a new public square (Sir Nigel Gresley Square) and other public spaces, a refurbished multi-storey car park, new housing and new road layouts (see figure 8 below) and the demolition of existing council buildings (e.g. Council House and Scarborough House). Cast has a 600-capacity auditorium along with supporting facilities such as dance and drama studios and rehearsal, workshop and teaching accommodation, meeting spaces, café bar and offices. CCQ Phase 1 was complete in September 2013.

Fig. 12: Civic & Culture Quarter, Doncaster town centre

6.09 The Civic and Cultural Quarter Phases 2-4.

Phase 2:
- New cinema (18,000 square foot, 984-seater auditorium) – completion expected 2020.
- 4 family restaurants (totalling 17,000 square foot) – completion expected 2020.
- Additional new parking provision.
- New office developments

Phase 3:
- New library and resource centre (completion expected 2020);
- Residential development on the Scarborough House site.
Phase 4:

- Further residential developments (i.e. Copley House).
- Additional leisure developments on unoccupied sites.

6.10 The cinema and leisure complex will be located adjacent to the theatre on the side of Sir Nigel Gresley Square. It is expected to open in spring 2020. Figure 9 below gives an impression of what the new scheme will look like. The new library, museum and resource centre located adjacent to the Civic Office is also expected to be completed in 2020.

**Fig. 13: Doncaster Civic and Cultural Quarter: cinema and leisure proposals**

**Rossington Hall**

6.11 Rossington Hall, set in 500 acres of land and home to the Doncaster Racing College, is a major leisure and entrainment venue, is set to become home of a new 18-hole championship golf course alongside adjacent nine-hole academy course³⁸. There will also be a clubhouse and associated leisure facilities. It will also deliver new hotel rooms, dining and conferencing facilities within the grounds of the existing stately home.

6.12 Rossington Hall will serve the European PGA Tour as a host venue and other international tournaments, benefiting from excellent access to the airport and national motorway and rail network. Plans are currently subject to approval as at January 2020.

**Stainforth Marina**

6.13 The scheme will involve the construction of a 500-berth marina (see figure 10) alongside bars and restaurants, activities/visitor centre, several retail units and new homes to the south of Stainforth and Keadby canal in Stainforth. Later phases will include new natural areas and public open spaces.

³⁸ https://wearedoncaster.co.uk/investment-portfolio/european-tour-golf-development/
Film and Television studio High Melton\textsuperscript{40}.

6.14 Grant funding of £4.1m of Local Growth Fund (LGF) from the Sheffield City Region for a new film and television studios on the site of the former High Melton campus of Doncaster College has been secured. The scheme headed up by 360 Degrees Media incorporates film and TV studios, a visual effects production facility (VFX), a film and TV training academy and a hotel and events business.

Yorkshire Wildlife Park Expansion\textsuperscript{41}

6.15 A £50 million expansion scheme will see 150 acres transformed into an extension the park. The scheme will create 300 further jobs once work is completed. The plans will allow the development of new reserves and the introduction of new species to build on the park’s success as a unique visitor attraction, animal conservation hub and a crucial part of the local economy. There will be a wide range of supporting facilities such as restaurants, shopping and a destination hotel, as well as a visitor hub.

Doncaster leisure hub programme

6.16 The Doncaster Green Infrastructure Strategy\textsuperscript{42} sets out an aspiration to develop a network of high quality multi-purpose community and recreational facilities to not only improve people’s health and quality of life but to also make environmental improvements. –This is especially important within areas with high levels of obesity and social deprivation. Further input is required from stakeholders to progress the project from conception through to implementation.

Future interventions to plug gaps in provision

<table>
<thead>
<tr>
<th>Issue</th>
<th>Future interventions / aspirations</th>
<th>Barriers</th>
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<tbody>
<tr>
<td>Promoting cultural and tourist activity and diversity within Doncaster town centre</td>
<td>• New attractions in the town centre (e.g. museums, art galleries and a new central library)</td>
<td>• Anti-social behaviour in the town centre • Poor location of existing facilities</td>
</tr>
</tbody>
</table>

\textsuperscript{39} www.waystone.co.uk/uk-sites/stainforth/master-plan-stainforth  
\textsuperscript{40} https://wearedoncaster.co.uk/investment-portfolio/film-and-television-studio/  
\textsuperscript{41} https://wearedoncaster.co.uk/investment-portfolio/yorkshire-wildlife-park/  
\textsuperscript{42} http://www.doncaster.gov.uk/services/planning/green-infrastructure-strategy
CHAPTER 7: ENERGY & TELECOMMUNICATIONS

Digital communications

7.1 The government is supporting investment to provide superfast broadband coverage across the UK. There is 95% coverage in Doncaster (as at Dec. 2017). The Doncaster Local Plan Policy 22 states that all new residential and commercial developments must provide connectivity to the superfast broadband network.

South Yorkshire Superfast Broadband Project

7.2 To fulfil its commitments to phases 1 and 2 of the government scheme, Doncaster Metropolitan Borough Council is working with its partners (BT, Broadband Delivery UK and the councils of Barnsley, Rotherham and Sheffield) to extend the availability of high-speed fibre broadband to around 98 per cent of homes and businesses across South Yorkshire. The Superfast South Yorkshire Broadband Project will generate a significant economic boost to the sub-region, bringing investment and jobs. An economic return of more than £270 million is forecast.

7.3 Superfast South Yorkshire’s 22 million pound project will build upon BT’s commercial rollout that is already making (fibre optic) broadband available more than 242,500 homes and businesses across South Yorkshire, as part of its plan to reach around two-thirds of UK premises. It means that businesses across South Yorkshire will be able to access to some of the fastest broadband speeds available, boosting the competitiveness of local firms and offering new ways of flexible working, entertainment and learning opportunities to local residents. Superfast broadband uses fibre optic technology to deliver speeds of up to 80Mbps.

7.4 Superfast South Yorkshire has secured additional funding through the government’s programme to extend the reach of fibre broadband to almost 99% of South Yorkshire. Phase 1 is complete (2015). Figure 14 above identifies the coverage across Doncaster by postcode. As at June 2018 95% of all existing households and businesses have connectivity available to the Superfast network.

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43 https://www.gov.uk/guidance/broadband-delivery-uk
44 sheffieldcityregion.org.uk/syprojects/sybroadband
45 www.superfastsouthyorkshire.co.uk
7.5 In July 2019 it was announced that Doncaster was to be part of the **Gigabit Cities** project being rolled out by CityFibre in partnership with Vodafone. This will bring Gigabit ultrafast full fibre connectivity to every building in Doncaster. CityFibre\(^{46}\) state that the full fibre connectivity will provide much faster connectivity speeds as opposed to the combination of fibre and copper cable connectivity of Superfast broadband. They plan to connect 5 million homes by 2033. The Council has no financial involvement with the scheme but will facilitate the roll out plan and help remove any barriers. Doncaster is on the shortlist to be one of the next locations.

**Energy**

7.6 By virtue of its low-lying nature and proximity to major power generators and nature resources, Doncaster has the technical feasibility to deliver a substantial amount of energy from renewable sources such as coal, methane, gas, water and food crops.

7.7 Doncaster is now the second biggest contributor to renewable energy generation in England\(^{47}\). Just under a fifth of the electricity it produces comes from renewable sources – much of it from household solar panels, wind turbines, biomass and landfill gas.

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\(^{46}\) [https://www.cityfibre.com/](https://www.cityfibre.com/)

\(^{47}\) This information is accurate as of March 2015 (see [www.green-alliance.org.uk/renewable_league_tables.php](http://www.green-alliance.org.uk/renewable_league_tables.php)).
Fig.16: Renewable energy league table

7.08 A number of projects are either planned or underway in the borough to supply energy from both fossil fuels and renewable sources. Once operational, these schemes will generate over 2000 megawatts of green electricity – enough capacity to power over three million new homes in the UK. This means that Doncaster will have the capacity to become self-sufficient in energy and have plenty left over to supply other parts of the UK.

Cleaner and more efficient power stations

7.09 In order to ensure the continued secure supply of electricity in Britain there is a need to replace those power stations that have reached the end of their operating life. There is also the need to replace less efficient power stations. Consequently, a significant gap is emerging between the electricity needs of the UK (which are currently growing annually at a rate of around 1.3%) and our ability to meet these needs.

Planned projects

Thorpe Marsh Power Station

7.10 The scheme will involve the construction of a 1,500 MW combined cycle gas turbine and 100MW open cycle gas turbine power station at Thorpe Marsh. The power station is expected to achieve an efficiency of around 60%. Planning permission was granted in September 2016.

7.11 The power station will require the construction of an 11-mile (18 km) cross-country gas pipeline from Camblesforth near the Drax power station to Marsh Lane, Barnby Dun. The developer (Carillon) plans to invest £984 million into the scheme, creating 800 new jobs.

Wind & solar power

7.12 Wind and solar power are among the fastest growing renewable energy resources in the UK. This is due in part to the availability of government subsidies and the falling cost of installation. Doncaster has about 570 GWh of potential wind-generating capacity, making it the highest potential growth rate in the Yorkshire and Humber region.

7.13 A growing number of homeowners and businesses in the borough are installing small-scale renewable energy schemes such as solar panel systems, heat pumps and wind turbines. The number of solar

48 Source: http://www.independent.co.uk/environment/climate-change
49 Doncaster Renewable and Low Carbon Energy Study (AECOM, 2012)
photovoltaics has increased exponentially since the introduction of the government’s feed-in-tariff scheme. In the past five years, Doncaster has achieved the highest take up rate of micro-renewable energy installations in the Yorkshire and Humber region. There are a number of wind farms under construction, or have been built in the past few years, especially to the north and north east of the borough (e.g. Thorne, Hampole, Marr and Redhouse). Most parts of the borough have a sufficient wind speed to ensure that wind turbine development is economically viable.

7.14 The wind and ground-based solar generation is being fed back into the grid, but is not allocated to a particular consumer. The building and house based solar generation will feed existing demand from building users and residential tenants.

Doncaster solar PV programme

7.15 Doncaster Metropolitan Borough Council has embarked upon a comprehensive programme to tackle fuel poverty and improve the condition and management of existing council homes. Doncaster has higher levels of fuel poverty than the UK average due to relative low incomes and the lack of energy efficiency within existing building stock (especially private-rented properties).

7.16 Housing is one of the council’s largest assets, which present further opportunity for solar developments. 164 council houses in the Highfields area are fitted with Solar panels (with average of 3 kilowatts per household) in a bid to reduce energy costs and carbon emissions. Following the success of the pilot scheme, the council has pledged to invest up to £1.2 million in the installation of solar panels on 6,000 council houses. Work on 684 Council homes is complete (2015).

7.17 Around £2.8 million in income is expected from the installations over the next 20 years, while each household will expect to save an average of £175 per year on their energy bills, helping to protect them against future energy price rises. Any surplus income from the solar installations will be fed back and invested into other community projects and investment priorities. The programme will also create and safeguard jobs (e.g. apprenticeships).

7.18 The council is also exploring the opportunity to generate energy close to new or existing large energy consumers (business only), for which a direct supply could be arranged. This will limit the demand fossil fuel generated energy and help move towards decentralised energy generation and distribution. Where a direct supply cannot be arranged, but where the grid has developed capacity, the council could generate energy (ground mount solar) to ‘sleeve’ back to itself. The council also aspires to develop its own energy company, providing gas and electricity to housing and small and medium sized businesses. The council would work with ‘an energy company’ through a ‘white label’ agreement. Any electricity and heat generation the council owns could be sold via the company to its customers. The development would be funded by the energy company, with on-going costs being met by revenue generated from energy sales. The company would aim to provide a competitive energy price to residents and businesses within Doncaster and sell energy generated from council-owned developments.

7.19 Any new renewable energy development for housing will need to explore new funding sources due to limited funds from the Housing Revenue Account. New funding could be borrowing or private investment. New developments should also be considering heat networks, especially those where both commercial and domestic developments join.

Wind & solar farms

7.20 Large-scale solar farm schemes are underway or are planned at Askern, Thorne, Hatfield, Sykehouse, Austerfield and Armthorpe. The solar farms (Thorne and Askern) will each generate around 5 megawatts of green energy per annum on former colliery sites. These are among the largest solar photovoltaic systems that supply power to the national grid in the Yorkshire and Humber region.

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51 Doncaster’s Affordable Warmth Plan (2014-17). The key drivers of fuel poverty are outlined in the Doncaster Anti-Poverty Needs Assessment.
7.21 In addition, two wind farms have permission at Norton/Barnsdale Bar (A1M) and Clayton in the north of the borough. These schemes will generate around 10 megawatts of green energy – enough to power 5000 homes per annum. Any profits from the schemes reinvested in community projects in the immediate area.

In July 2019 the Peel Group (owners of the airport) announced plans to build a £2 million solar farm at the Airport that will potentially generate 25% of the airports energy. It will provide 1.7 MWp of zero carbon energy and is planned to be operational in 2020.

The Wind Energy Development background paper was published in 2019. It includes a landscape capacity assessment showing areas suitable for wind power development and the ‘Proposed Area of Search’ for developments.

**Biomass & waste**

7.22 Doncaster currently generates around 13 KW of renewable energy from biomass resources such as food crops and agricultural waste. The biomass or waste is converted into renewable energy (e.g. gas and electricity) from locally sourced materials. Landfill gas is extracted from existing cells at Bootham Lane and Skelbooke. New facilities are planned at Brier Hills Farm (wood waste) and Hatfield Power Park (commercial and industrial waste).

7.23 Doncaster currently generates more biomass energy than any other authority in the Sheffield city region. This is primarily from mixed woodland, large-scale forestry and single species short rotation. The low-lying landscape of the Humberhead Levels provides good links to Humber ports and depleted North Sea oil and gas fields and provides extensive peatland and wet moorland (Thorne and Hatfield Moors is the largest area of lowland raised mire in Britain). These areas provide a fertile environment in which to grow food or energy crops. The Thorne and Hatfield moors (along with the other peatland areas in the UK) are the single largest carbon reserve in the UK, storing the equivalent of storing 20 years of UK carbon dioxide emissions.

**CHAPTER 8: UTILITIES**

**Electricity transmission**

8.1 National Grid, as the holder of a licence to transmit electricity under the Electricity Act 1989, has a statutory duty to develop and maintain an efficient, co-ordinated and economical transmission system of electricity and to facilitate competition in the supply and generation of electricity. National Grid operates the national electricity transmission network across Great Britain, owns, and maintains the network in England and Wales providing electricity supplies from generating stations to local distribution companies. National Grid’s high voltage electricity system has approximately 22,000 pylons with an overhead line route length of 4,500 miles, 420 miles of underground cable and 337 substations. Separate regional companies own and operate the electricity distribution networks that comprise overhead lines and cables at 132,000 volts and below. It is the role of these local distribution companies to distribute electricity to homes and businesses.

8.2 National Grid’s high voltage electricity overhead transmission lines/underground cables within the borough that form an essential part of the electricity transmission network in England and Wales (see Figure 13).

8.3 The following substations are also located within the administrative area of the borough.

- Thorpe Marsh substation (400kV & 275kV & 66kV).

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52 http://www.doncaster.gov.uk/services/planning/wind-energy-development-background-paper
53 Doncaster Renewable and Low Carbon Energy Study (AECOM, 2012)
8.4 To facilitate competition in the supply and generation of electricity, National Grid must offer a connection to any proposed generator, major industry or distribution network operator who wishes to generate electricity or requires a high voltage electricity supply. Often proposals for new electricity projects involve transmission reinforcements remote from the generating site, such as new overhead lines or new development at substations. If there are significant demand increases across a local distribution electricity network area the local network distribution operator may seek reinforcements at an existing substation or a new grid supply point. The National Grid may undertake development works at its existing substations to meet changing patterns of supply and generation.

8.6 National Grid’s Ten Year Statement sets out the proposed enhancements to the electricity transmission network. It presents a wide range of information relating to the transmission system in Great Britain including demand, generation, plant margins, characteristics of the existing and planned national electricity transmission system, its expected performance and capability and other related information. Amongst other uses, the information will assist existing and prospective new users of the national electricity transmission system in assessing opportunities available to them for making new or further use of the national electricity system in the competitive electricity market in Great Britain.

Fig. 17: National Grid’s infrastructure assets within and around Doncaster

Electricity distribution

8.7 Doncaster has an extensive underground cable network and a significant number of substations that supply densely populated areas at West Moor Park, Balby, central Doncaster Stainforth, Askern, Adwick, Edlington, Armthorpe, Markham Gates, Thorpe Marsh, Rossington, Austerfield, Mexborough and Barnburgh. Northern Powergrid is the local distribution company that manages this network across the borough of Doncaster and the sub-region of South Yorkshire. Figure xx below identifies Northern Powergrid’s 132kV and 33/66kV systems in the area.

8.8 Doncaster’s electricity supply is from Thorpe Marsh (275/66Kv), Doncaster B (132/66V) and Doncaster Central (132/33V) sub-stations. The actual demand on this group is approaching 300MW and is forecast to reach that level during the 2016-2023 period. During this period, it will fall outside the requirements of the security of supply standard (P2/6) with the areas of higher load growth to the south of Doncaster close to the M18 motorway and airport. In order to address this issue, a new

Electricity Ten Year Statement (National Grid, 2014)
substation was built at Lakeside (via two 132V cables from West Melton) to meet the rising demand in electricity supply in Doncaster in the medium to long term, thus reducing overall costs and timescales\textsuperscript{55}.

Fig. 18: Northern Power grid 132 KV and 33/66KV systems and associated substations in Doncaster

Planned projects

New electricity substation at Potteric Carr

8.9 Work is complete on a major new electricity substation called Mallard way on land adjacent to the Potteric Carr nature reserve to provide power to around 40,000 people in the Doncaster area. The new substation will secure capacity improvements to increase the electricity supply and facilitate future development and growth across the borough. This scheme cost in the region of 39 million pounds.

8.10 Northern Powergrid are also installing ten new 66 kV circuit breakers and a replacement 132 to 66 kV transformer at West Melton to help ensure the on-going security of supply within the Dearne area. Completion is expected by 2020\textsuperscript{56}.

Gas transmission

8.11 National Grid owns and operates the high-pressure gas transmission system in England, Scotland and Wales. It consists of approximately 4,300 miles of pipelines and 26 compressor stations connecting to eight distribution networks. National Grid has a duty to develop and maintain an efficient co-ordinated and economical transmission system for the conveyance of gas and respond to requests for new gas supplies (e.g. from power stations and ship suppliers) in certain circumstances.

8.12 New gas transmission pipelines and associated installations are periodically required to meet increases in overall demand and changes in patterns of supply across the network.

\textsuperscript{55} Our business plan for 2015-2023 (Northern Powergrid, 2014)

\textsuperscript{56} Northern Powergrid is investing £6.4million in West Melton (see www.northernpowergrid.com/asset/0/document/1665.pdf)
8.13 National Grid has no gas transmission assets located within the administrative area of the borough. Figure 16 supports this and clearly shows that the nearest gas transmission assets that National Grid own and operate are located well beyond the borough to the north and east in the East Riding and North Lincolnshire.

Gas distribution

8.14 National Grid also owns and operates approximately 82,000 miles of lower-pressure distribution gas mains in the north west of England, the west Midlands, east of England and north London – almost half of Britain’s gas distribution network, delivering gas to around 11 million homes, offices and factories. National Grid does not supply gas, but provides the networks through which it flows. Reinforcements and developments of their local distribution network generally are because of overall demand growth in a region rather than site-specific developments. A competitive market operates for the connection of new developments. National Grid owns and operates the local gas distribution network in Doncaster.

Water supply

8.15 Yorkshire Water supplies the vast majority of Doncaster’s clean water supply; the notable exception is a small part of the south-east of the borough to the West of Bawtry (as identified in Purple in figure 19 above) which is served by Severn Trent Water. Following significant investment in recent years, Yorkshire Water uses a grid system to pump water throughout the sub-region and the wider area. They do not rely wholly on the Sherwood Sandstone aquifer since water resources are redistributed according to need. The Environment Agency currently do not support any further private water abstraction licences from the Sherwood Sandstone aquifer (from which drinking water can be obtained).

Fig. 19: Coverage areas for the water supply in Doncaster

8.16 Yorkshire Water has produced a 25-year ‘water resource management plan’\(^{57}\). Like other water companies, Yorkshire Water also submits a five-year business plan to the regulator OFWAT. The plan ‘The Blueprint for Yorkshire’ that includes a commitment to ensure the continued supply of drinking water over the next 25 years factoring in both forecast population change and climate

\(^{57}\) Water Resources Management Plan (Yorkshire Water Services Ltd, August 2014)
change. The latest plan which has been approved covers the period from 2015-2020\(^{58}\). In April 2018 Yorkshire water produced a ‘Draft Resources management Plan’ for consultation. The plan indicates, “We do not expect that our customers will need more water than we can supply during the 25 year planning period”. The plan highlights the challenges faced for resources including population growth and climate change.

Severn Trent Water has an agreed business plan with the regulator Ofwat with the overall aim of delivering better services and lower bills for the customer. The plan includes a commitment to ensure the continued supply of drinking water. Severn Trent published its 25-year plan (2010-2035) ‘Focus on Water’ in 2007. It lists key strategic intentions including “Providing a continuous supply of quality water”. They intend to improve networks and treatment works to increase the reliability of supply. It highlights the key challenges of an increasing population and climate change and notes that based on current trends “we do not have sufficient water available to meet long term demand” Severn Trent has also published Water Resources management Plan (WRMP) 2019\(^{59}\) that sets out plans to meet expected changes in supply and demand for water over the coming years. The plan aims to respond to future challenges including population change, climate change, and resilience to drought, abstraction issues and environmental sustainability.

8.17 Severn Trent Water has not raised any issues concerning the supply of water to the small part of the borough to which they serve. They do not anticipate any capacity problems within urban areas. Any issues will be addressed through reinforcing the network. Like Yorkshire Water, they are able to move water across their area. The trunk mains serving Bawtry has little spare capacity and as such would require system reinforcement to support future growth. However, it is unlikely that significant growth or expansion of Bawtry will be supported, as any future development is anticipated to involve small-scale infilling within the existing settlement boundary with particular attention to affordable housing need.

The Sheffield City Region conducted analysis of water supply for the Integrated Infrastructure Plan. This showed that ‘utility providers seem to have the infrastructure availability to meet the demands of the current level of planned developments within the City Region’ (3). It concluded that the levels of projected housing growth are unlikely to raise any capacity issues apart from minor reinforcement work. The analysis also highlighted the following key challenges that water companies face.

**Climate Change.** The supply and demand balance is at risk from climate change and drought. Work is required to identify how to deliver schemes for storage, recovery and water re-use.

**Waste Reduction.** Leakage is a key issue. The Government has set a target for at least a 3% reduction in leakage by 2020.

**Increase in Demand.** Identification of demand for Industrial and commercial use is difficult to estimate. There are no typical usage rates as with housing.

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\(^{58}\) Blueprint for Yorkshire (Yorkshire Water Services Ltd, February 2015)

\(^{59}\) Severn Trent Water Resources Management Plan 2019
Waste water treatment

8.18 The Doncaster area is served by three waste water treatment companies. Yorkshire Water, Severn Trent Water and Anglian Water. Yorkshire Water provides waste water treatment for the majority of the borough. Severn Trent Water generally covers the south and south east of the borough, including the settlements of Armthorpe, Bawtry and Rossington. Anglian Water undertake some sewerage utility services to the Parishes of Auckley, Austerfield, Finningley and Blaxton.

Fig. 20: Waste water treatment catchment areas

Yorkshire Water maintains a network of 52,000Km of sewers. The 25-year business plan ‘Blueprint for Yorkshire’ includes a commitment to “maintain and improve the condition and capacity of our sewers” and, protect from and reduce the risk of flooding.

Severn Trent published its 25-year plan (2010-2035) ‘Focus on Water’ in 2007. Key strategic intentions including “Dealing effectively with waste water” are listed. It includes improving the sewerage network and its capacity. The plan highlights the challenges of a growing population and climate change. St recognises the need to expand sewage treatment capacity in the coming years.

Anglian Water serves the Parishes off Auckley, Austerfield, Finningley and Blaxton. They have a sewage treatment work at Finningley. The growth risk assessment undertaken by Anglian indicates that additional investment is not currently required within the asset management plan period (2015-20). In response to the Local Plan ‘Homes and Settlements’ consultation no serious were raised in relation to the proposed housing numbers ascribed to the settlements they serve.

8.19 Generally, employment sites do not add extensive additional demand or capacity on their waste water treatment works as employees are using facilities in the workplace instead of their own facilities at home. However, there are exceptions to this rule (for example, in areas where the waste water treatment works is already at or close to capacity). Under Section 94 of the Water Industry Act 1991, sewerage undertakers have an obligation to provide additional treatment capacity as and when required where necessary.

60 https://www.yorkshirewater.com/promise
61 https://www.severntrent.com/content/dam/stw/about_us/documents/
Based on research undertaken by the Sheffield City Region for the Integrated Infrastructure Plan there seem to be ‘no significant issues associated with strategic sewerage assets within the City Region and therefore existing planned developments should not need to be constrained on this basis’ (3). Any increased surface water flows from future new developments will be ‘discharged through separate sustainable drainage networks in accordance with SUDS best practice’ (3).

Future interventions to plug gaps in provision

<table>
<thead>
<tr>
<th>Issue</th>
<th>Future interventions / aspirations</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing electricity supply and capacity</td>
<td>Provision of a new electricity substation in the Lakeside area (including high voltage cabling) which will provide power to around 40,000 people</td>
<td>Unknown</td>
</tr>
<tr>
<td>Increasing waste water supply and capacity</td>
<td>Upgrades to the capacity of existing waste water facilities to support growth in the northeast and North West of the borough (e.g. Thorne).</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Appendix 1. Environment Agency planned projects that affect the Doncaster area.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Location</th>
<th>Total Project Expenditure (£)</th>
<th>Planned delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bentley &amp; Thorpe Marsh Ings Refurbishment &amp; Alterations - Est. 2035-2045</td>
<td>Barnby Dun, River Don</td>
<td>£25,000,000</td>
<td>2020-2045</td>
</tr>
<tr>
<td>Bentley pumping station replacement</td>
<td>Bentley</td>
<td>£2,005,000</td>
<td>2015-2017</td>
</tr>
<tr>
<td>Bentley Barrier bank refurbishment</td>
<td>Bentley</td>
<td>£600,000</td>
<td>2020/21 onwards</td>
</tr>
<tr>
<td>Bentley Ings Pumping Station Refurb - Est. 2040-2045</td>
<td>Bentley Ings</td>
<td>£11,000,000</td>
<td>2040-2045</td>
</tr>
<tr>
<td>Bentley Pumping station refurbishment</td>
<td>Bentley, Doncaster</td>
<td>£9,051,856</td>
<td>2020-2025</td>
</tr>
<tr>
<td>Kirk Bramwith Aqueduct Floodgates - Est. 2040-2045</td>
<td>Broad Ings, South Bramwith</td>
<td>£3,000,000</td>
<td>2040-2045</td>
</tr>
<tr>
<td>Conisborough culvert</td>
<td>Conisborough</td>
<td>£100,000</td>
<td>2020/21 onwards</td>
</tr>
<tr>
<td>Kearsley Brook surface water flood alleviation, Conisbrough</td>
<td>Conisbrough</td>
<td>£220,000</td>
<td>2016/17</td>
</tr>
<tr>
<td>Kearsley Brook shoal removal</td>
<td>Conisbrough</td>
<td>£1,100,000</td>
<td>2020/21 onwards</td>
</tr>
<tr>
<td>Washlands optimisation, Dearne</td>
<td>Deane</td>
<td>£350,000</td>
<td>2015-2019</td>
</tr>
<tr>
<td>Dearne mouth sluice refurbishments</td>
<td>Deane</td>
<td>£145,000</td>
<td>2019/21</td>
</tr>
<tr>
<td>Dearne Washlands</td>
<td>Deane</td>
<td>£300,000</td>
<td>2020/21 onwards</td>
</tr>
<tr>
<td>Denaby Main PLR Replacement - Est. 2030</td>
<td>Denaby Main</td>
<td>£160,000</td>
<td>2030</td>
</tr>
<tr>
<td>Cheswald Culvert Refurbishment</td>
<td>Doncaster</td>
<td>£700,000</td>
<td>2040-2045</td>
</tr>
<tr>
<td>Skell Banks reforming</td>
<td>Doncaster</td>
<td>£200,000</td>
<td>2015-2019</td>
</tr>
<tr>
<td>Went Outfall refurbishment/replacement</td>
<td>Doncaster</td>
<td>£2,000,000</td>
<td>2020/21 onwards</td>
</tr>
<tr>
<td>Don piles wall refurbishment</td>
<td>Doncaster</td>
<td>£1,100,000</td>
<td>2020/21 onwards</td>
</tr>
<tr>
<td>Don reservoir refurbishments</td>
<td>Doncaster</td>
<td>£600,000</td>
<td>2020/21 onwards</td>
</tr>
<tr>
<td>12 pumping stations in the Danum and Doncaster East Internal Drainage Board area</td>
<td>Doncaster</td>
<td>£1,357,700</td>
<td>2020/21 onwards</td>
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<tr>
<td>Duck Holt Wall Replacement - Est. 2025-2030</td>
<td>Doncaster, River Don</td>
<td>£750,000</td>
<td>2025-2030</td>
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<tr>
<td>Wheatley Park Embankment Refurb - Est. 2025-2035</td>
<td>Doncaster, River Don</td>
<td>£30,073,000</td>
<td>2025-2035</td>
</tr>
<tr>
<td>Ea Beck &amp; engine drain tidal doors</td>
<td>Ea beck</td>
<td>£200,000</td>
<td>2020/21 onwards</td>
</tr>
<tr>
<td>Finkle Street Culvert Refurb - Est. 2030-2035</td>
<td>Finkle Street, Mill Dike</td>
<td>£4,000,000</td>
<td>2030-2035</td>
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<tr>
<td>Fishlake Bank - penstock and tidal doors refurbishment</td>
<td>Fishlake</td>
<td>£550,000,</td>
<td>2020/21 onwards</td>
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<tr>
<td>Fishlake habitat improvement</td>
<td>Fishlake</td>
<td>£110,000</td>
<td>2020/21 onwards</td>
</tr>
<tr>
<td>Fishlake Nab Wall and Embankment Refurb - Est. 2020-2025</td>
<td>Fishlake, Doncaster</td>
<td>£2,000,000</td>
<td>2020-2025</td>
</tr>
<tr>
<td>Fishlake Outfall Refurb - Est. 2025-2030</td>
<td>Fishlake, River Don</td>
<td>£500,000</td>
<td>2025-2030</td>
</tr>
<tr>
<td>Pumping station improvements, Isle of Axholme, Keadby</td>
<td>Isle of Axholme</td>
<td>£35,700,000</td>
<td>2017 to 2021</td>
</tr>
<tr>
<td>Description</td>
<td>Location</td>
<td>Cost</td>
<td>Start Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>---------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Isle of Axholme System Improvements - Torre and North Soak Drain</td>
<td>Isle of Axholme</td>
<td>£3,000,000</td>
<td>2021/22 onwards</td>
</tr>
<tr>
<td>linked to Keadby Group</td>
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<tr>
<td>Isle of Axholme, Bull Hassocks Pumping Station Improvements</td>
<td>Isle of Axholme</td>
<td>£307,000</td>
<td>2019/20</td>
</tr>
<tr>
<td>Isle of Axholme, Candy Farm Pumping Station Improvements</td>
<td>Isle of Axholme</td>
<td>£201,000</td>
<td>2019/20</td>
</tr>
<tr>
<td>Isle of Axholme, Goodcop Pumping Station Improvements</td>
<td>Isle of Axholme</td>
<td>£208,000</td>
<td>2019/20</td>
</tr>
<tr>
<td>Isle of Axholme, Ditness Pumping Station Improvements</td>
<td>Isle of Axholme</td>
<td>£2,410,000</td>
<td>2019/20 to 2024/25</td>
</tr>
<tr>
<td>Isle of Axholme, Tunnel Pits Pumping Station Improvements</td>
<td>Isle of Axholme</td>
<td>£1,751,000</td>
<td>2020/21 to 2027/28</td>
</tr>
<tr>
<td>Isle of Axholme, West Stockwith Pumping Station Improvements</td>
<td>Isle of Axholme</td>
<td>£1,160,000</td>
<td>2018/19 to 2021/22</td>
</tr>
<tr>
<td>Isle of Axholme, River Idle Asset Improvements</td>
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<td>£1,000,000</td>
<td>2023/24 onwards</td>
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<tr>
<td>Isle of Axholme Tidal Trent North LB - Keadby Pumping Station to WHL Lighthouse</td>
<td>Isle of Axholme</td>
<td>£1,500,000</td>
<td>2020 onwards</td>
</tr>
<tr>
<td>Isle of Axholme Tidal Trent South LB A - Keadby Pumping Station to South</td>
<td>Isle of Axholme</td>
<td>£750,000</td>
<td>2020 onwards</td>
</tr>
<tr>
<td>Ewster</td>
<td></td>
<td></td>
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<tr>
<td>Isle of Axholme Tidal Trent South LB B - South Ewster to Misterton</td>
<td>Isle of Axholme</td>
<td>£750,000</td>
<td>2020 onwards</td>
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<tr>
<td>Ivy House Wall Refurb - Est. 2040-2045</td>
<td>Ivy House Farm, River Don</td>
<td>£1,600,000</td>
<td>2040-2045</td>
</tr>
<tr>
<td>Kirk Bramwith defences bank refurbishment</td>
<td>Kirk Bramwith</td>
<td>£200,000</td>
<td>2020/21 onwards</td>
</tr>
<tr>
<td>Kirk Bramwith Wall Refurbishment - Est. 2040-2045</td>
<td>Kirk Bramwith, River Don</td>
<td>£2,000,000</td>
<td>2040-2045</td>
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<td>Kirk Sandall Pumping Station Refurbishment - Est. 2021-2025</td>
<td>Kirk Sandall</td>
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<td>2021-2025</td>
</tr>
</tbody>
</table>
| Kirk Sandall pumping station refurbishment                                  | Kirk Sandall      | £848,000, | 2015-2021 onwards |}

**Isle of Axholme Tidal Trent South LB B - South Ewster to Misterton**

- **Location:** Isle of Axholme
- **Cost:** £750,000
- **Start Date:** 2020 onwards

**Ivy House Wall Refurb - Est. 2040-2045**

- **Location:** Ivy House Farm, River Don
- **Cost:** £1,600,000
- **Start Date:** 2040-2045

**Kirk Bramwith defences bank refurbishment**

- **Location:** Kirk Bramwith
- **Cost:** £200,000
- **Start Date:** 2020/21 onwards

**Kirk Bramwith Wall Refurbishment - Est. 2040-2045**

- **Location:** Kirk Bramwith, River Don
- **Cost:** £2,000,000
- **Start Date:** 2040-2045

**Kirk Sandall Pumping Station Refurbishment - Est. 2021-2025**

- **Location:** Kirk Sandall
- **Cost:** £400,000
- **Start Date:** 2021-2025

**Kirk Sandall pumping station refurbishment**

- **Location:** Kirk Sandall
- **Cost:** £848,000
- **Start Date:** 2015-2021 onwards

**Marsh Road Wall Refurb - Est. 2030-2035**

- **Location:** Marsh Road, River Don
- **Cost:** £5,000,000
- **Start Date:** 2020-2035

**New Ings Bank Realignment - Est. 2040-2045**

- **Location:** New Ings
- **Cost:** £11,000,000
- **Start Date:** 2040-2045

**Jubilee Bridge Floodgate Replacement - Est. 2030-2035**

- **Location:** River Don
- **Cost:** £500,000
- **Start Date:** 2020-2035

**North Swaith Dike Culvert Refurb - Est. 2030-2035**

- **Location:** River Don
- **Cost:** £2,150,000
- **Start Date:** 2020-2035

**Lower Don Embankment Refurb - Est. 2030-2035**

- **Location:** River Don
- **Cost:** £8,500,000
- **Start Date:** 2020-2035

**River Torne Tributary Flood Alleviation Strategy, Rossington**

- **Location:** Rossington
- **Cost:** £135,000
- **Start Date:** 2020/21

**St Oswald's Church Wall Refurbishment - Est 2030-2035**

- **Location:** Rover Don
- **Cost:** £4,000,000
- **Start Date:** 2020-2035

**Skellow Embankment Realignment - Est. 2040-2045**

- **Location:** Skellow
- **Cost:** £2,500,000
- **Start Date:** 2040-2045

**Skellow Tie-in Bridge parapet raising**

- **Location:** Skellow
- **Cost:** £500,000
- **Start Date:** 2015-2017

**South Bramwith Wall Refurb - Est. 2030-2035**

- **Location:** South Bramwith
- **Cost:** £4,000,000
- **Start Date:** 2020-2035

**St Mary's Bridge Wall Refurbishments - Est. 2021-2025**

- **Location:** St Mary's Bridge, River Don
- **Cost:** £1,700,000
- **Start Date:** 2021-2025

**Old Don outfall, Stainforth**

- **Location:** Stainforth
- **Cost:** £100,000
- **Start Date:** 2020/21 onwards

**Left Bank refurbishment, Stainforth**

- **Location:** Stainforth
- **Cost:** £165,000
- **Start Date:** 2020/21 onwards

**Stainforth Dunston Hill Bridge Wall Replacement - Est. 2040-2045**

- **Location:** Stainforth
- **Cost:** £4,000,000
- **Start Date:** 2040-2045

**Sykehouse barrier bank refurbishment**

- **Location:** Sykehouse
- **Cost:** £1,100,000
- **Start Date:** 2020/21 onwards

**Went Outfall Refurb - Est. 2040-2045**

- **Location:** Sykehouse, River Went
- **Cost:** £500,000
- **Start Date:** 2040-2045

**Thorne flood wall replacement**

- **Location:** Thorne
- **Cost:** £550,000
- **Start Date:** 2015-2018

**Thorpe Marsh piles refurbishment**

- **Location:** Thorpe marsh
- **Cost:** £550,000
- **Start Date:** 2020/21 onwards

**Paper Mill Dyke flood defence wall, Tickhill**

- **Location:** Tickhill
- **Cost:** £83,000
- **Start Date:** 2015/16

**Town's Clough Wall Refurb - Est. 2040-2045**

- **Location:** Town's Clough, River Don
- **Cost:** £3,100,000
- **Start Date:** 2040-2045

**IDB pumping station refurbishments x 16**

- **Location:** Various locations
- **Cost:** £11,258,200
- **Start Date:** 2020/21 onwards

**Wheatley Park bank refurbishment**

- **Location:** Wheatley
- **Cost:** £12,000,000
- **Start Date:** 2015-2021

**Mile Thorne Bank refurbishment**

- **Location:** Wheatley Hall Road
- **Cost:** £3,220,000
- **Start Date:** 2015-2021

**Total**

- **Cost:** £215 million
## Appendix 2 Highways England assessment of the impact of Local Plan employment sites on the Motorway junctions in Doncaster. Summary table.

<table>
<thead>
<tr>
<th>Operation without Local Plan at 2035</th>
<th>Operation with Local Plan at 2035</th>
<th>Impact summary</th>
<th>Proposed mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A1M</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J36 All arms approaching capacity with one over capacity</td>
<td>Multiple approaches over Capacity</td>
<td>Improvement works are required to adequately mitigate the predicted traffic impact of the Local Plan.</td>
<td>Circulatory widening, widening of approaches, signalisation and lane improvements.</td>
</tr>
<tr>
<td>J37 All arms at, or approaching, capacity</td>
<td>All arms at, or approaching capacity, with worsening queues</td>
<td>Improvement works are required to adequately mitigate the predicted traffic impact of the Local Plan.</td>
<td>Circulatory widening, widening of approaches, signalisation and lane improvements.</td>
</tr>
<tr>
<td>J38 Within capacity</td>
<td>Within capacity</td>
<td>Developments associated with the Doncaster Local Plan are not expected to collectively have a significant impact. No mitigation works required</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>M18</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2 Several approaches over capacity</td>
<td>Several approaches over capacity with a worsening of queueing</td>
<td>Improvement works are required to adequately mitigate the predicted traffic impact of the Local Plan.</td>
<td>Circulatory widening and lane improvements.</td>
</tr>
<tr>
<td>J3 All arms at or approaching capacity</td>
<td>All arms at capacity.</td>
<td>Improvement works are required to adequately mitigate the predicted traffic impact of the Local Plan.</td>
<td>Free flow left turn between M18 west and White Rose Way, widening of circulatory, signalisation and lane improvements.</td>
</tr>
<tr>
<td>J4 Within capacity *</td>
<td>Within capacity *</td>
<td>No mitigation works required *</td>
<td>* Assessments assume that the A630 west of M18 Junction 4 is upgraded to a dual carriageway</td>
</tr>
<tr>
<td>J5 Some arms approaching capacity.</td>
<td>Several arms approaching and at capacity with a worsening of queueing.</td>
<td>Improvement works are required to adequately mitigate the predicted traffic impact of the Local Plan.</td>
<td>The proposed Hatfield Link road and additional improvements (as per the approved Unity development scheme) will mitigate impacts.</td>
</tr>
<tr>
<td>J6 Within capacity</td>
<td>Several arms approaching capacity with a worsening of queueing.</td>
<td>Improvement works are required to adequately mitigate the predicted traffic impact of the Local Plan.</td>
<td>Signalisation improvements proposed to mitigate impacts.</td>
</tr>
<tr>
<td><strong>M180</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J1 Within capacity</td>
<td>Within capacity</td>
<td>No mitigation works required</td>
<td>NA</td>
</tr>
</tbody>
</table>
### Appendix 3. Impact of the Local Plan allocated sites on strategic highway junctions. Summary table.

13 junctions that result in any turn with an increase in 100 passenger car units with an additional 20 seconds of delay have been identified from the modelling scenarios (see 1.14 – 1.16)

<table>
<thead>
<tr>
<th>Map Ref.</th>
<th>Junction</th>
<th>Mitigation required?</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Doncaster Road/Armthorpe Lane</td>
<td>NO</td>
<td>No mitigation required. Predicted to operate with spare capacity in both future scenarios.</td>
</tr>
<tr>
<td>2</td>
<td>Doncaster Road/Church Street/ Mere Lane</td>
<td>NO</td>
<td>No mitigation required. Predicted to operate with spare capacity in both future scenarios</td>
</tr>
<tr>
<td>3</td>
<td>Nutwell Lane/Gate Wood Lane</td>
<td>NO</td>
<td>No mitigation required. Predicted to operate with spare capacity in both future scenarios</td>
</tr>
<tr>
<td>4</td>
<td>A60 Doncaster Road/Common Rd, Tickhill</td>
<td>NO</td>
<td>No mitigation required. Predicted to operate with spare capacity in both future scenarios</td>
</tr>
<tr>
<td>5</td>
<td>White Rose Way A6182/Middle Bank</td>
<td>NO</td>
<td>No mitigation required. Predicted to operate with spare capacity in both future scenarios</td>
</tr>
<tr>
<td>6</td>
<td>A638/Carr House Road A18</td>
<td>NO</td>
<td>No mitigation required. Predicted to operate with spare capacity in both future scenarios</td>
</tr>
<tr>
<td>7</td>
<td>Thorne Road/Barnby Dun Road</td>
<td>NO</td>
<td>Thorne Road/Barnby Dun Road – The results of the modelling indicate that the junction is predicted to be approaching capacity in the do something scenario with the do minimum scenario predicted to operate within capacity. A mitigation scheme has been included to alter the mini roundabout to a signalised junction. The results of the mitigation predict the signalised junction will be in capacity within both scenarios. However, the cost would be too expensive for the benefits it would offer and therefore it was decided to maintain the junction as a mini roundabout.</td>
</tr>
<tr>
<td>8</td>
<td>A630/Hatfield Lane</td>
<td>YES</td>
<td>A630 / Hatfield Lane – The results of the modelling indicate that the junction will operate with large queues and delays along the east/west A630 movements. A mitigation scheme has been included to increase the length of the flare on the approach to both give-way lines. The results indicate there will be an improvement in both the queue and delay on both affected approaches</td>
</tr>
<tr>
<td>9</td>
<td>A630/Yorkshire Way</td>
<td>YES</td>
<td>The results of the modelling indicate that the junction will operate over capacity with large delays and queues predicted on the Yorkshire Way northbound approach in both scenarios. A mitigation scheme to increase the storage at the give-way line by slightly decreasing the width of the pedestrian island has been proposed.</td>
</tr>
<tr>
<td>10</td>
<td>Armthorpe Rd/ Leger Way A18</td>
<td>YES</td>
<td>The results of the modelling indicate that both scenarios are predicted to operate with the Armthorpe Road Eastbound approach operating with significant queueing and delay. A mitigation scheme has been put forward to construct a left turn bypass lane similar to the approach on the opposite site, the results of this predict that the junction will operate with less delay and queueing on the Armthorpe approach. However, there will be a minor increase on the southbound approach however this isn’t deemed to be significant.</td>
</tr>
<tr>
<td>11</td>
<td>Great N Road A638/Hurst Lane</td>
<td>NO</td>
<td>No mitigation required. Predicted to operate with spare capacity in both future scenarios</td>
</tr>
</tbody>
</table>
Fig. 21. Junction reference map for Appendix 3 summary table.