4. NORTH EAST CAMBRIDGE AREA ACTION PLAN

4.1 The Existing Site: Constraints and Opportunities

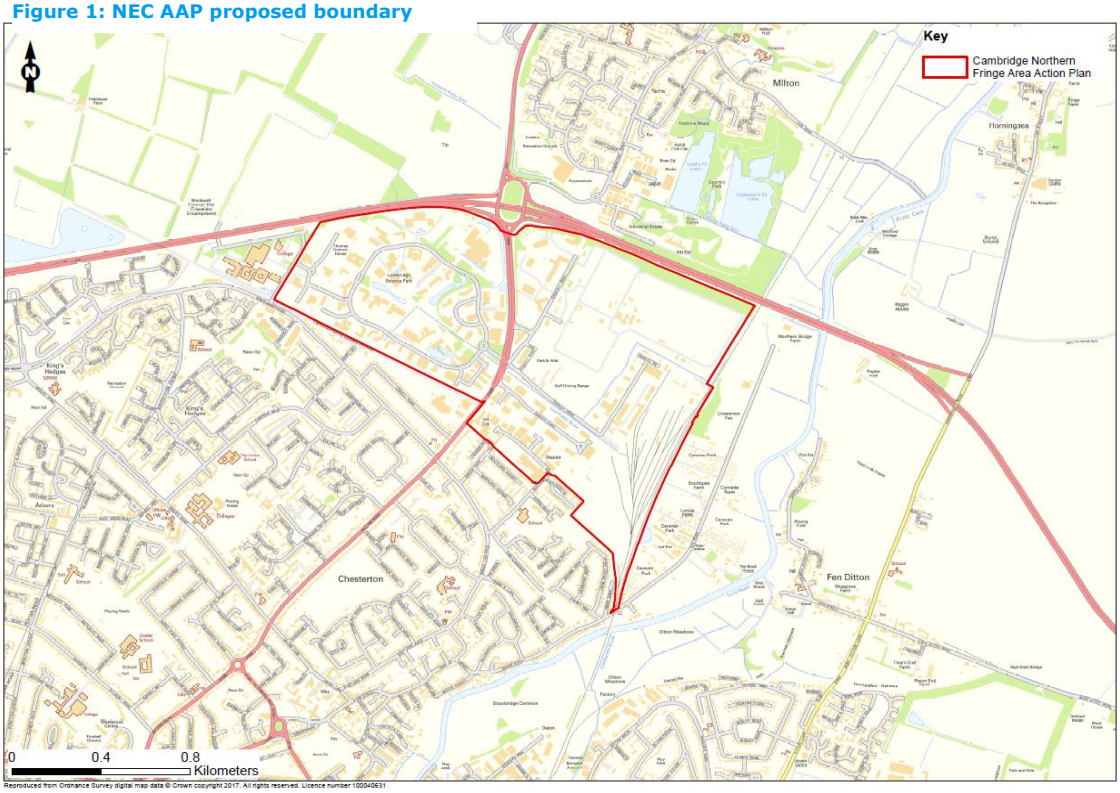
The proposed NEC AAP boundary is shown in Figure 1. The area contains a number of constraints and opportunities which have a strong influence on the alternative schemes and policies possible for this area. The constraints and opportunities which have been considered by Cambridge City Council and South Cambridgeshire District Council in the development of the Issues and Options 2019 consultation document are discussed in this section in the format of a series of baseline report cards. The report cards do not seek to reproduce all the data that is included in the Local Plans SA scoping reports, instead they provide an updated summary of the key baseline issues for the AAP.

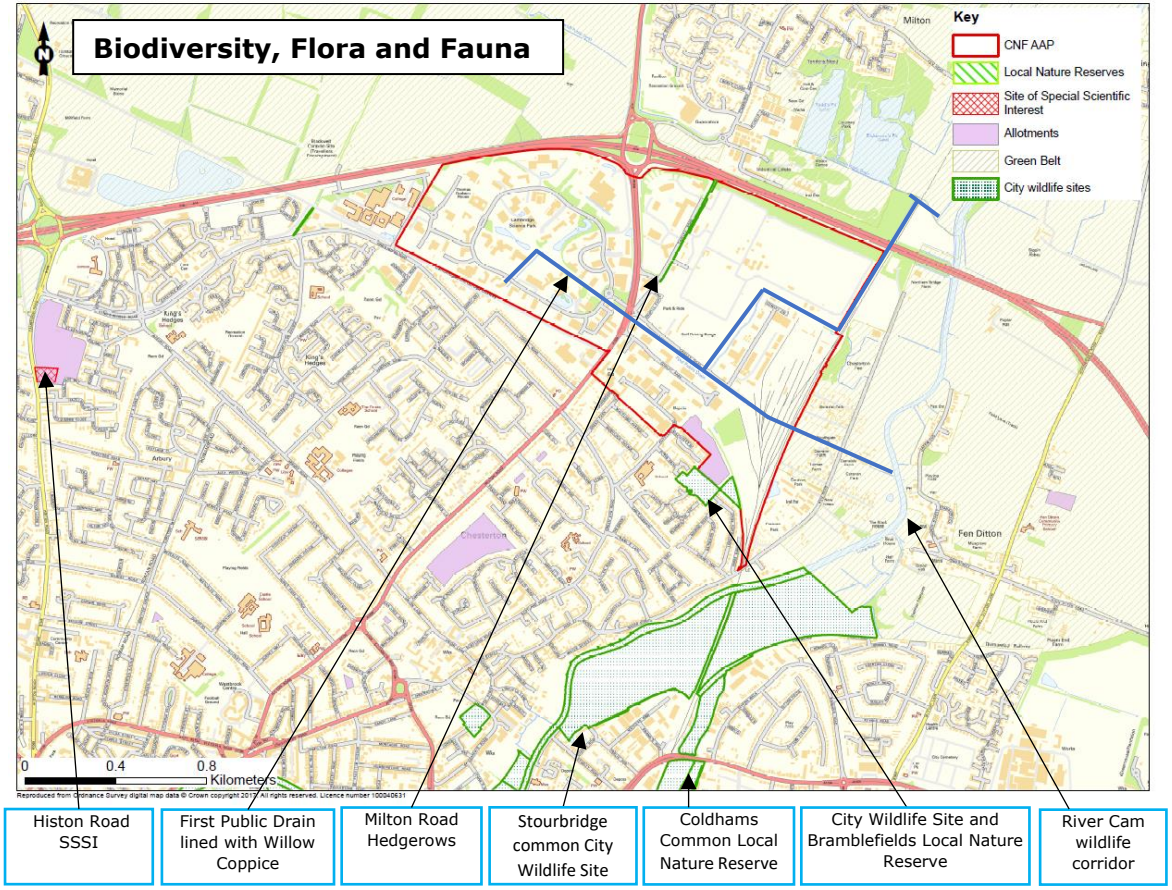
The report cards provide supporting baseline text, a future baseline column which refers to likely conditions in a 'no nothing' scenario assuming the AAP is not produced. Development may still go ahead in this scenario but it would be piecemeal and would not benefit from the forward planning and coordination that the AAP will provide.

Data gaps and new data to be forthcoming are highlighted in Section 3.5. The councils have indicated that a number of studies / investigations are outstanding on baseline issues. These are set out in the Issues and Options 2019 consultation document and as these studies are finalised this information will be added to the SA baseline.

Any further data gaps that are found in subsequent stages of the SA will be highlighted and the implications of the data gaps to the assessment made clear. If any further baseline data becomes available as the SA progresses, this data will be added to the SA baseline and reported in subsequent reports (e.g. the SA Report).

Figure 1: NEC AAP proposed boundary





Current Baseline

The draft AAP is in close proximity to Milton Country Park and the River Cam Corridor.

East Chesterton Ward, which is near to the draft AAP, has 2.89ha of protected open space per 1,000 population. 58.5% of this is publicly accessible.

The draft AAP has very limited existing open spaces, and what open space exists, such as the Bramblefields LNR, the wildlife corridor associated with First Public Drain and Nuffield Road allotments, is utilised by the existing community. The Milton Road hedgerows are designated as a City Wildlife Site (CWS) and qualifies for its potential value as *'it just misses criteria for hedgerows and is likely to meet them in the future'.* There are a number notable plants present within the eastern area of the draft AAP and records of protected species within the vicinity of the site include Water vole records associated with the First Public Drain. Bramblefields LNR comprises a mix of woody and bramble scrub, woodland, grassland and a small pond therefore any future development within the draft AAP should aim to retain and enhance this.

The status of notable plants present in the rail sidings is to be confirmed following recent development works. An ecology survey undertaken in 2016 recorded the presence of notable plant species and protected species.

Implications

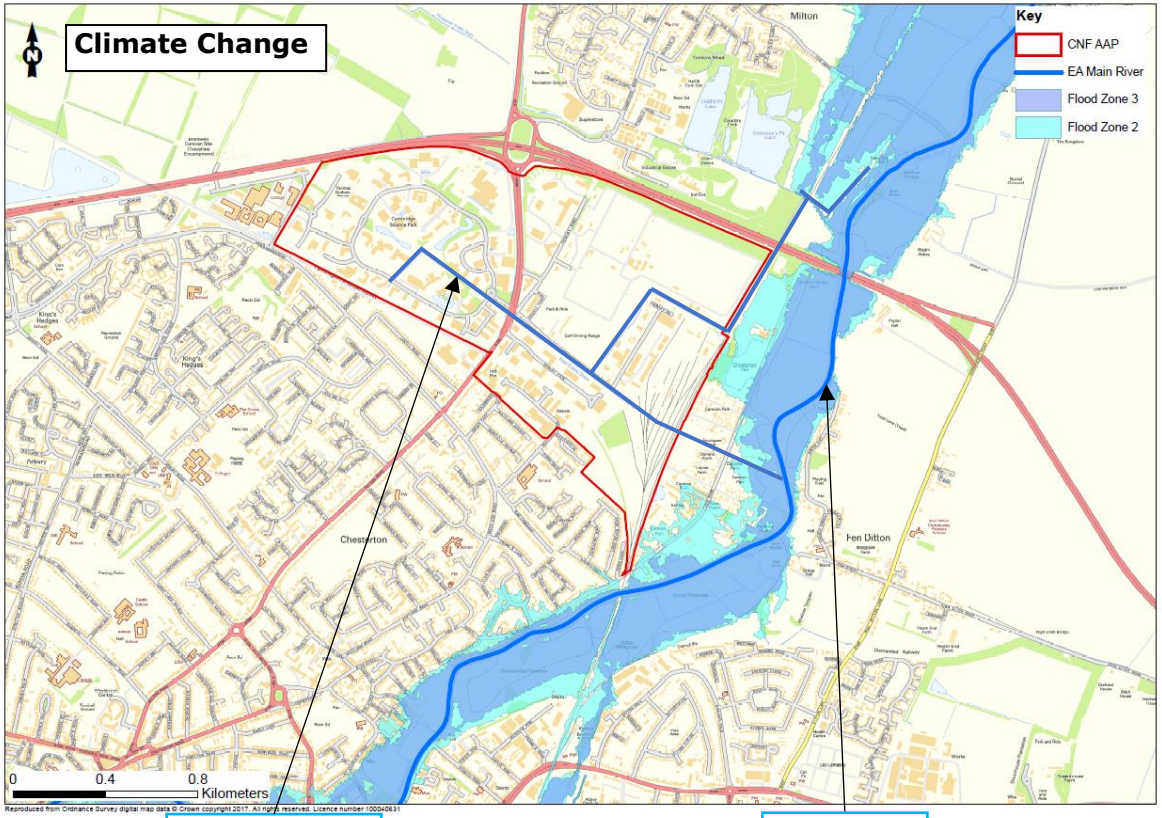
The AAP will consider the approach to open space within the AAP area, and options are proposed in the consultation. Ecology surveys to identify habitats and species of value and importance that need to be considered in determining constraints and opportunities.

The draft AAP should seek to maintain and enhance the connectivity of fragmented habitats through encouraging additional green infrastructure. The draft AAP should seek to protect the LNR and CWS and could encourage access via footpath links from employment and housing areas within the site. There are opportunities for ecological improvements around the First Public Drain (water quality improvements and habitat creation).
Biodiversity can be enhanced by integrating enhancement into all development proposals, for example by means of biodiverse roofs, integration of bird and bat boxes and selection of native specie

Likely Future Baseline

Pressure for development in the CNF area is likely to increase pressure on already fragmented habitats. Existing green infrastructure is likely to be protected and new infrastructure provided for as development takes place, through policies in the Local Plans. However, this ad hoc approach is less likely to make the most of opportunities for provision of a more coherent network of green spaces.

Large areas of the site are of limited value in habitat and protected species terms and are likely to be the focus for future development within the area.



Implications

The principles of sustainable design and construction need to be integrated into all development proposals. Both councils have sustainable design SPDs in place. However, more specific sustainability requirements may be necessary as part of the draft AAP. It is important that the following considerations are addressed:

- The potential for imposition of carbon reduction policies that are more onerous than the national building regulations.
- The requirement for an energy hierarchy pursued through supportive local planning policies.
- Measures to deal with increased temperatures in a way that do not increase energy use and associated greenhouse gas emissions, for example, through improvements to building fabric.
- Water scarcity particularly in regard to looking at the creation of new areas of landscaping and minimising the use of potable water for irrigation (see below for details regarding flooding).

An integrated surface water policy is needed for the draft AAP. This should include:

- Consideration of sustainable drainage systems;
- Holding water on site including water storage areas; and
- Opportunities for ecological improvements around the First Public Drain (both water quality improvements and habitat creation).

Current Baseline

There is a need to ensure carbon emissions are minimised and the principles of sustainable design and construction are integrated into all development proposals. The former is referred to as climate change mitigation and the latter climate change adaptation.

First Public drain runs across the draft AAP and connects into the River Cam to the east and north east of the site. The drain is a wildlife corridor at present and provides the surface water drainage for the draft AAP and much of the surrounding area. The main flow of the drain is to the north with a semi-redundant section shown to connect into the River Cam, flowing underneath the railways sidings to the east.

The draft AAP is in flood zone 1 (low risk), however, there is a level of surface water flood risk. The risk is confined to small local areas that can be mitigated against through good design and careful masterplanning. Areas of open space may be required to manage this risk.

Levels of groundwater in the area are known to be high, although there are no recorded instances of groundwater flooding within the CNF area. Contamination will also determine surface water management solutions.

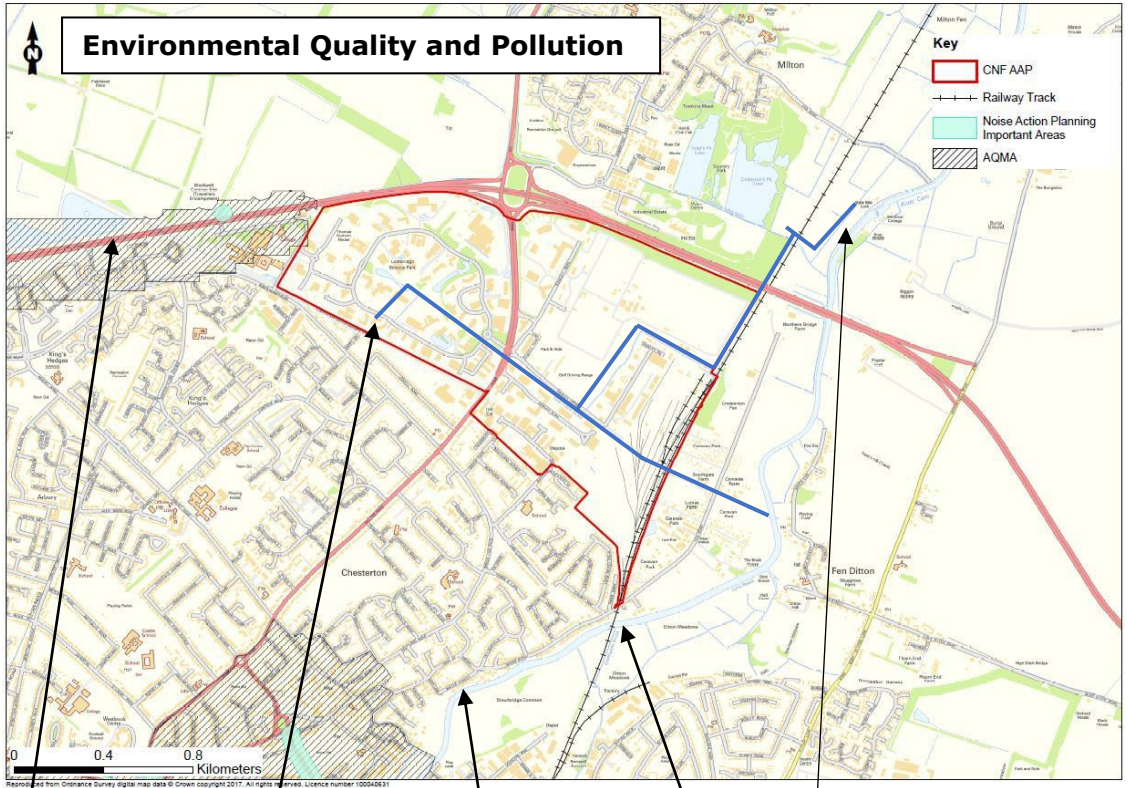
Various contaminants are present on site, including heavy metals in soils, hydrocarbons in the soil and groundwater and chlorinated solvents and monitoring should occur to ensure that this does not affect the water quality within the First Public Drain.

Likely Future Baseline

In terms of carbon emissions, new development in Cambridge is expected to result in significant emissions growth over the period to 2020. The councils have agreed to strive towards zero carbon by 2050, and review policies through the next local plan. Even if changes were made now, however, unavoidable climate change would still occur. There are three key risks for Cambridge associated with predicted changes in climate:

- Increased summer temperatures and heatwaves;
- Flooding; and
- Water shortages and droughts

Existing flood risk will prevail and individual planning applications would be required to limit impacts on flooding through Local Plan policies. However, a coordinated approach to Sustainable urban Drainage Systems (SuDS) will not be achieved through ad hoc development and therefore, opportunities for greater enhancements may be missed.



A14 | First Public Drain – provides surface water drainage for the AAP area | River Cam | Cambridge North Railway Station | First Public Drain discharges into the River Cam below Baits Bite Lock

Current Baseline

The A14 is being upgraded between Huntingdon and the Milton Interchange. Ongoing operation of the aggregates importing businesses will generate dust and this must be dealt with by the draft AAP. Operations associated with the ongoing use of railway for aggregates importation currently present noise and vibration issues.

The Cambridge North railway station is now open, along with the guided busway extension to provide direct access to the station.

The eastern area of the draft AAP contains contaminated land including heavy metals in soils, hydrocarbons in the soil and groundwater and chlorinated solvents. Elevated ground gas is also present on site. Remediation will be integral to redevelopment of this area of the site.

The draft AAP and a large portion of north Cambridge drains into the First Public Drain watercourse. The River Cam into which it drains, has moderate ecological quality and good chemical quality.

Air Quality issues have been identified along the A14 and adjoins the draft AAP in the north west. The Water Recycling Centre is currently a source of odour to the local area and is therefore currently a constraint to development.

Implications

The operational activities of the aggregate importing business in the longer term must be considered in the draft AAP. This will have impacts in terms of what class and type of development is suitable in certain locations in the draft AAP. By proposing development in the draft AAP, it will encourage the thorough investigation and remediation of contaminated land.

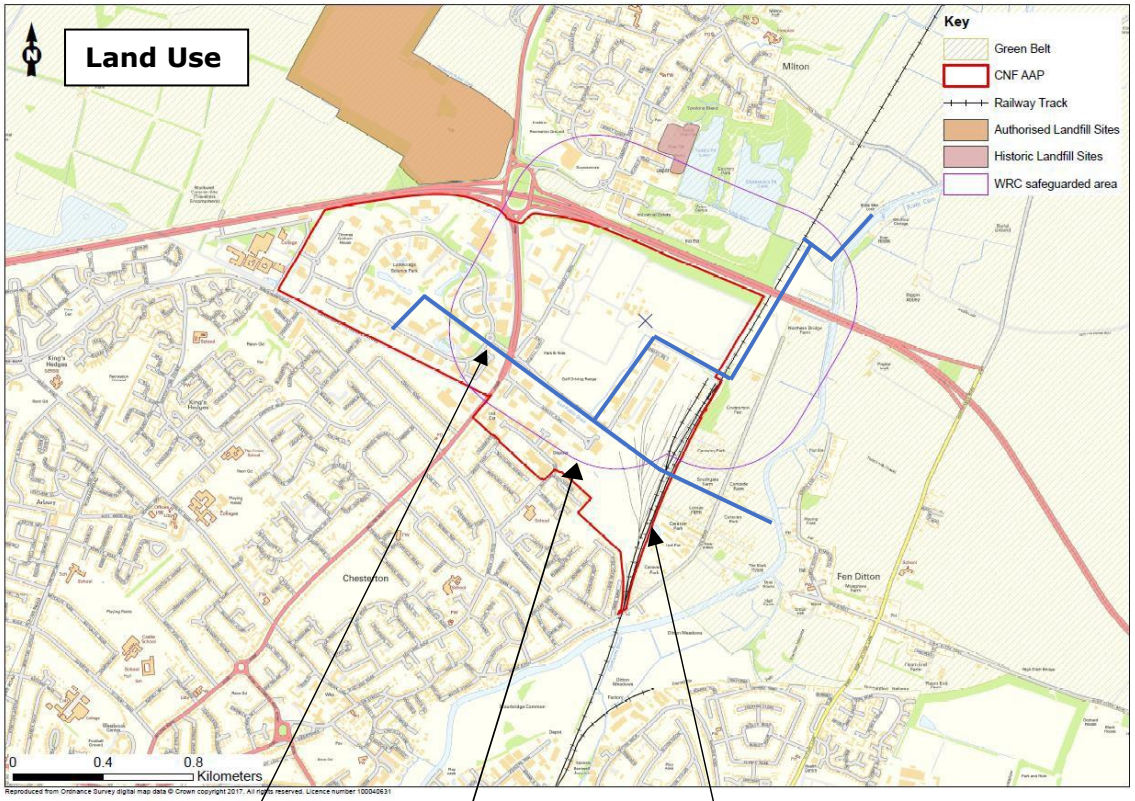
Areas immediately adjacent to the A14, the railway line and sidings, mineral and waste operations will require mitigation due to noise issues. Consideration will need to be given to air quality associated with the industrial areas and the A14; dust from the mineral and waste operations; and vibration close to the railway line and sidings. Measures to reduce light pollution from new developments will also be required.

Design and layout options for the draft AAP should include SuDS to improve water quality within First Public Drain and the River Cam, whilst providing opportunities to slow and reduce runoff rates which will have benefits for the wider drainage of the site.

Likely Future Baseline

Air quality along the A14 may improve following upgrading and management of the AMQA. Dust may continue to be emitted from the aggregates importing business. Railway for aggregates importation will continue to produce noise and vibration.

Water sensitive urban design will be implemented in the draft AAP through the policies in the Local Plans which should improve water quality. However, a coordinated approach to Sustainable Drainage Systems (SuDS) will not be achieved through ad hoc development and therefore, opportunities for greater enhancements may be missed.



First Public Drain – provides surface water drainage for the AAP

Chesterton Rail Sidings – contains notable plans and protected species

Cambridge North Railway Station – opened in 2017 and provides links to Cambridge City centre

Implications

Development of the draft AAP will require thorough investigation of ground contamination and may require remediation and mitigation proposals, the nature of which partly depends on the proposed uses. The level of remediation required depends on the proposed uses. The highest level required will be for residential uses with gardens. Redevelopment of the draft AAP for uses identified within the Local Plan policies would make good use of previously developed land.

There is a high level of housing needed in the Cambridge area and there are currently limited community facilities and open space within the draft AAP. While opportunities for housing on CNF area are to some extent limited, the area can still make a valuable contribution to overall housing and local facility supply.

Current Baseline

The majority of the draft AAP is previously developed land, with Anglian Water's Water Recycling Centre (WRC) currently occupying approximately 40% of the eastern area of the site and Cambridge Science Park comprising, St Johns Innovation Centre and Cambridge Business Park to the west (30% of Cambridge's current office and R&D stock).

The current Mineral and Waste Plan allocates a sand and gravel safeguarding area adjacent to the draft AAP however the Mineral and Waste Plan and associated allocations are currently under review as it is not clear at the current stage whether more sites are required.

The draft AAP does not include any agricultural land however, it does contain contaminated land. The area to the north and east is designated as Green Belt land. The golf driving range north of Crowley Road is still operational.

Chesterton Rail Sidings has been freed up for development by reconfiguring the aggregates railway siding.

There is a high level of housing needed in the Cambridge area and the draft AAP and its surroundings currently has very limited facilities (e.g. retail, community and leisure uses).

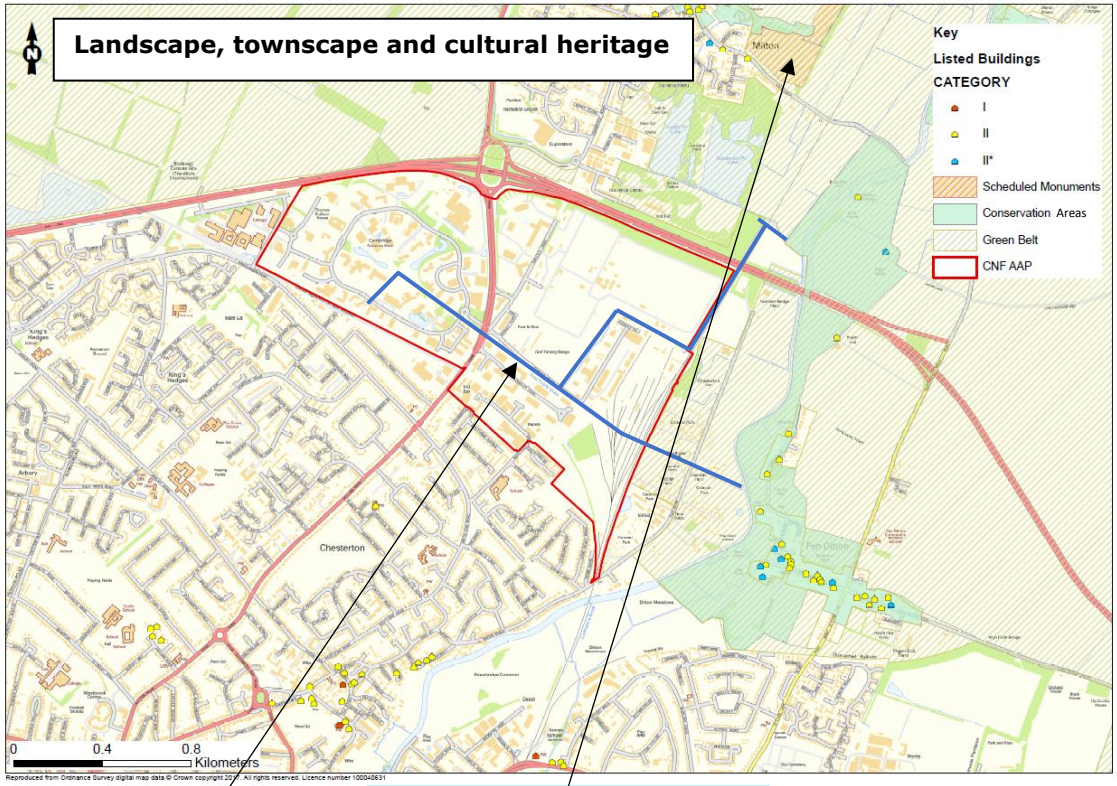
Likely Future Baseline

There are currently no plans to exploit the sand and gravel nearby.

Contaminated land is likely to remain as such unless development is proposed and remediation takes place in order to enable the development.

Much of the land in the area is under-utilised in terms of development density. There are also significant areas of vacant and under used land on site and this likely remain.

Neighbouring residential areas are home to some of the city's more disadvantaged communities and this is likely to continue without additional employment and local facility provision.



Implications

Development within the draft AAP should respect the adjacent Green Belt and seek to maintain its character, views and the wider landscape context will be important Considerations for the draft AAP. There is a need to maintain and where appropriate enhance the overall character and qualities of the skyline of Cambridge, as the city continues to grow and develop into the future.

Development within the draft AAP will need to complement and enhance the city's character through the use of high quality design that maximises opportunities to support the natural environment with new and existing open spaces.

Potential for unknown archaeology may require investigation prior to development consent, however, no known constraints are recorded which will affect the masterplan options.

Current Baseline

Transport infrastructure, business and commercial development are now major components of the relevant National Character Area profile 88: Bedfordshire and Cambridgeshire Claylands. It is not known whether there is underground archaeology present within the draft AAP.

Cowley Road industrial estate includes a range of low density industrial uses, in addition to providing the frontage to the new station. The large area occupied by Chesterton rail sidings has been unused for many years and contributes toned to enhance the overall character of the area. The Cambridge Science Park provides home for a range of science and technology-based industries and contains significant areas of car parking. Planning permission has already been granted for some buildings to be demolished and replaced with more intensive commercial buildings.

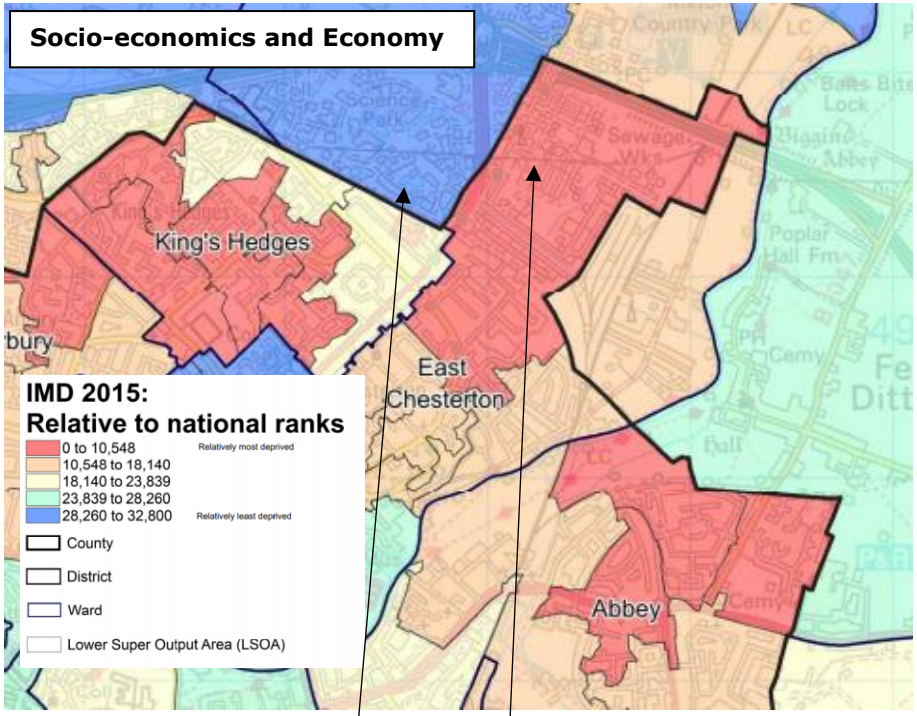
Baits Bite Lock and Fen Ditton/Chesterton Sidings conservation areas are located east of the railway and are recognised for the architectural quality and historic interest. These areas contain multiple listed buildings designations.

Likely Future Baseline

There is likely to be a continued focus on residential, commercial and infrastructure, road and rail improvements within the draft AAP and within the wider landscape context.

There is likely to be a need to maintain and where appropriate enhance the overall character and qualities of the townscape and skyline of Cambridge.

Existing nearby conservation area, listed buildings and Green Belt designation are likely to remain in place.



The western area of the site is contained within the Milton ward, under South Cambridgeshire District Council jurisdiction.

The eastern area of the site is contained within the East Chesterton ward of under Cambridge City Council jurisdiction.

Implications

The draft AAP should ensure that new jobs and facilities are accessible to people from all backgrounds and demographic groups. It should also set out a coordinated approach to employment development. It could provide local shops and other complementary uses.

Protected Open Space within the draft AAP (Bramblefields LNR and an area of allotments in the south) should be included within the draft AAP masterplan. The draft AAP could contribute to improving health and well-being of local residents through the provision of Publicly Accessible Open Space, the minimisation of environmental pollution, the encouragement of active lifestyles through the prioritisation of walking and cycling modes in the draft AAP masterplan.

Current Baseline

The areas adjoining the CNF area are largely residential. To the east of the railway line there are a number of Gypsy and Traveller sites.

Of the three wards adjoining the site, two fall within the 20 most deprived wards in Cambridgeshire in terms of indices of multiple deprivation, namely the King's Hedges and East Chesterton wards. The East Chesterton is the 13th most deprived ward in the county. The area is also the 2nd worst ranked in Cambridge and South Cambridgeshire in terms of the Income Deprivation Affecting Children Index.

A number of new office buildings have recently been granted planning permission/redeveloped within Cambridge Science Park and St John's Innovation Park.

The Employment Land Review (2012) identified a particular need for office space in or on the edge of Cambridge. Opportunities have been identified on the northern fringe of Cambridge for additional employment development, taking advantage of the increased accessibility of the area as a result of by the Guided Busway and the new railway station. There is need to provide B1a (office use), space and more incubation or enterprise centres whereby small scale new ventures can be launched, focused on the city centre and the northern fringe.

Cambridge Science Park Exchange has live superfast fibre broadband and cabinets within the eastern area of the draft AAP have been upgraded recently.

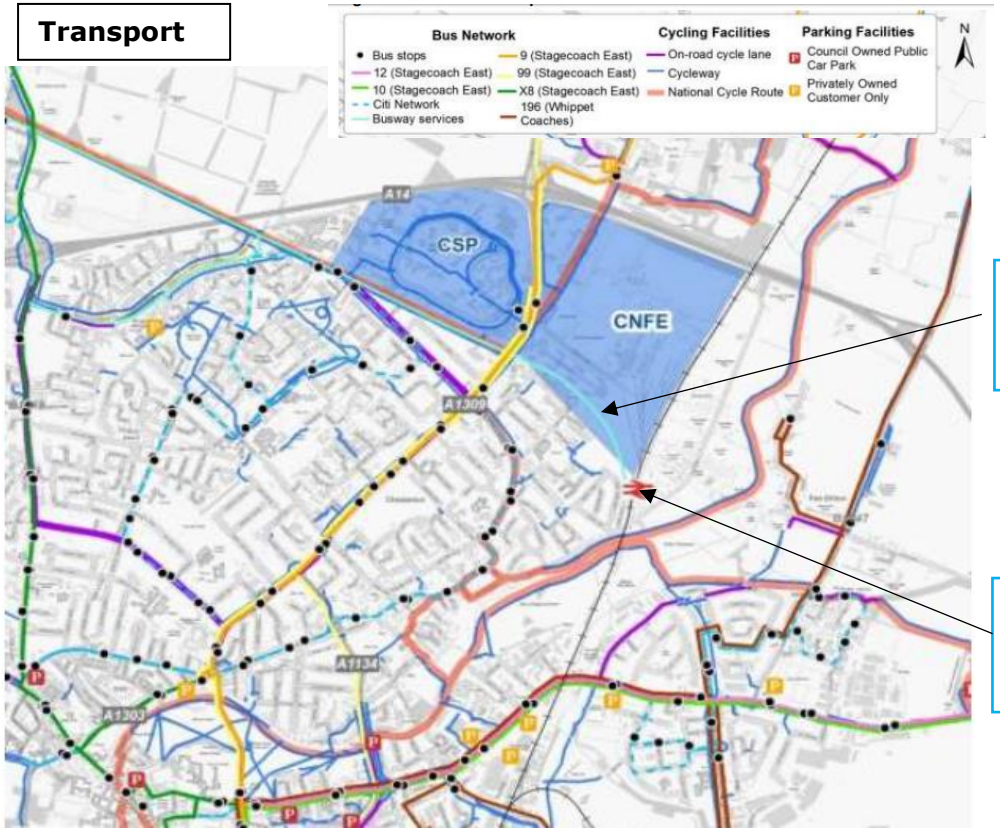
Likely Future Baseline

New employment may be provided through new developments within the draft AAP which come forward independently of an AAP. Without a draft AAP, opportunities to provide for healthy lifestyles and ensure equality in access to employment opportunities may be missed.

The South Cambridgeshire Local Plan includes a policy which supports densification of employment uses on the site. Some of the existing building stock is dated, and there is an opportunity for the site to evolve to continue to make a significant contribution to the employment needs of Greater Cambridge.

The area to the north of Cambridge should continue to be the main focus for development related to high technology and innovation. This well established and world renowned cluster will need to be carefully grown to ensure that increasing demand for employment floorspace is met over future decades.

Transport



Implications

Future redevelopment within the CNF area could result in severance issues if the transport network isn't properly considered. The CNF area has close connections to the A14,and is mainly served by junctions off Milton Road. Nuffield Road Industrial Estate is served from Green End Road. In peak periods, parts of the network frequently operate at or near capacity, particularly in the morning and evening peaks. The severance issues make moving within and beyond the CNF area more challenging, such as difficulties in crossing Milton Road, the boundaries of business parks, and the railway line.

The draft AAP should seek to capitalise on opportunities to encourage use of public transport and walking/cycling and opportunities provided by the development of the Chisholm Cycling Trail.

Current Baseline

The Ely to Cambridge Transport Study found that around 76% of work trips to the CNF area are made by car which is significantly higher than many other areas in and around Cambridge. In terms of soft modes of transport to work, only 2% made by bus and 15% made by bicycle. The opening of the new railway station, Guided Busway and cycling and walking improvements offers an opportunity to improve this situation.

The Cambridge North Station opened in 2017 and is located within one mile from Cambridge Science Park and 0.5 miles from CNFE. The railway provides services to London, Ely, Kings Lynn and Norwich. Cambridge Busway provides access to the Science Park and links to the Cambridge North station and Park and Ride bus services.

Likely Future Baseline

A new cycle route, the Chisholm Trail has been proposed which would run north to south, following much of the railway line. This would improve access to the site by cycle.

The A14 is being upgraded between Huntingdon and the Milton Interchange. Improvements to the A10, including junction improvements and dualling, are being explored by the Cambridgeshire Combined Authority. This will assist delivery of development, but the largest movements associated with development of the CNF area would be from the east and west on the A14 and from the south on the M11.

Even with the improvements currently taking place, growth at the northern fringe has potential to displace traffic onto less appropriate routes.

4.2 Vision, Development Objectives and Development Principles

The proposed Vision for the NEC AAP is shown in Table 4:

Table 4: NEC AAP Proposed Vision

North East Cambridge - A socially and economically inclusive, thriving, and low carbon place for innovative living and working; inherently walkable where everything is on your doorstep

The overarching Development Objectives are presented in Table 5. There is a total of 19 objectives proposed for the area which centre around three headings.

Table 5: NEC AAP Development Objectives

A place with a strong identity that successfully integrates into Cambridge, bringing economic growth and prosperity that is delivered with social justice and equality

- NEC will be design-led to create a true 'place making' approach to fostering an identity routed in the essence of Cambridge and which promotes a sense of belonging and liveability bringing together a diverse range of business and employment opportunities, education and training, living options, retail and recreation in a vibrant, safe and integrated mixed use district.
- NEC will be demonstrably resource efficient, promoting low carbon living that successfully combines low-tech green solutions with high-tech smart city technology to respond positively to the challenges of climate change.
- NEC will be a new walkable district for Cambridge that promotes easy navigation and transition between sustainable transport modes using density and critical mass to support and sustain uses.
- NEC will provide a new model for low car dependency living through maximising the use of and integrating with public transport infrastructure.
- NEC will integrate with surrounding communities, spreading the benefits it delivers to surrounding areas.

A high quality, healthy biodiverse place which will be a major contributor to achieving zero carbon in Greater Cambridge by 2050

- High quality spaces and buildings will be multi-functional to create a richer, fine grain and more vibrant place that makes efficient and effective use of the land and allows imaginative rethinking of existing buildings and spaces.
- Green spaces will be a core part of the place structure extending, connecting and improving biodiversity and integrating Sustainable Drainage Systems within the development.
- Microclimate will be understood at all scales and development forms designed to maximise positive orientation.
- Individual neighbourhoods will be attractive, human in scale and have their own recognisable and legible identity.
- NEC will be a healthy place, with a focus on creating a new community with good health and wellbeing.
- Seamless links between adjacent land uses will ensure a workable and consistent approach that ensures the quality of place is maintained at a high level over the longer term.

A City Innovation District which will deliver affordable homes, a diverse range of quality jobs and excellent neighbourhood facilities

- NEC will deliver economic growth and prosperity that achieves social justice and equality.
- NEC will be a welcoming and inclusive district with new neighbourhoods that supports the knowledge economy of Cambridge with a local and global reach
- Innovative and adaptable, so that it is resilient and able to evolve and adapt over time.
- NEC will make a significant contribution to the housing needs of the Greater Cambridge area including affordable housing and a range of housing types and tenure.
- NEC will provide a layered economy that includes large, small and start-ups businesses, integrated with opportunities to facilitate collaboration between educational institutions and businesses and supported by business uses such as cafés, hotels, leisure facilities and service providers that help create community.
- NEC will be an inherently legible place centred round identifiable new centres of activity and focussed on a new green space network and sustainable transport infrastructure.
- Density will not mean 'town cramming' but will respond positively to the uses and accessibility of the site to create a critical mass capable of creating a self-sustaining place.
- NEC will consider its role in meeting the strategic needs of the city, for example enabling the continued use of the minerals railhead.

4.3 Proposed Policy Approaches

The NEC AAP Issues and Options 2019 consultation document also presents a range of proposed policy approaches for consultation. The policy approaches cover the following topic areas:

- Placemaking and Land use;
- Effective integration with the wider area;
- Transport;
- Employment;
- Housing;
- Retail, Leisure & community services & facilities;
- Open Space;
- Climate change and sustainability; and
- Implementation & Delivery.