Forest Heath
District Council

Forest Heath District Council

Draft Infrastructure Delivery Plan to 2031

Consultation draft
August 2015

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About this document

This is the first draft of an Infrastructure Delivery Plan (IDP) that accompanies the Issues and Options consultation drafts of both the Single Issue Review (SIR) of Core Strategy Policy CS7 – Overall Housing Provision and Distribution, and the Site Allocations Local Plans.

The IDP will be updated and refined as these documents progress through the planning process (to the Preferred Options and Submission draft stages).

Section 6 of this draft IDP includes tables for each of the market towns, key service centres and primary villages based on the Infrastructure and Environmental Capacity Appraisal 2009 (IECA). These tables set out existing infrastructure, opportunities for growth, constraints, and specific information from infrastructure and service providers updated during the spring of 2015.

We welcome your views, comments and evidence to further update the IDP including the tables at the end of section 6.

Funding for infrastructure comes through a range of sources including developers (through S.106 agreements), infrastructure providers (through planned projects and upgrades), service providers, and in the future through the Community Infrastructure Levy (CIL). CIL is a standard charge on developments that will replace many, but not all, of the items of infrastructure currently secured under S106 Obligations. Forest Heath is a CIL Charging Authority, which means that the total cost of infrastructure that CIL payments are expected to fund must be identified. In order to do this we must consider what additional infrastructure is needed in our area to support the proposals contained within our development plan, namely our Core Strategy and emerging Site Allocations Local Plans.

So, in preparation for our CIL, and as part of this consultation, we welcome your comments on the following:

- Any alternative funding sources for the key items of infrastructure identified to allow us to determine the funding gap that CIL is intended to fill. We are required to demonstrate that there is a funding gap before we can even consider implementing a CIL.
- Any additional items of infrastructure that were not captured within the context of the original IECA or this draft IDP that you feel are essential to the delivery of our growth aspirations as detailed within our development plan(s) and which will be reliant, at least in part, on CIL/S.106 receipts for their delivery in addition to the likely required level of such contribution(s).
- Any items of infrastructure, captured in the IECA and/or this draft IDP, that are deemed to be no longer required to support our growth aspirations and the reason(s) for this.

1. Introduction

1.1 This draft Infrastructure Delivery Plan (IDP), provides a framework which will support the planned delivery of infrastructure that is required to deliver the spatial policies contained within the Forest Heath Core Strategy Local Plan adopted in May 2010. Following a High Court Challenge to Policy CS7 the council has prepared an Issues and Options consultation draft of an Overall Housing Provision and Distribution document. This is known as a Single Issue Review (SIR) of Policy CS7 and the abbreviation SIR will be used when referring to the Overall Housing Provision and Distribution document in this draft IDP.

1.2 This draft IDP will be published as part of the evidence base for the SIR, and the Site Allocations Issues and Options consultation, and comments on the document will be welcome as part of this process. Responses received will be assessed by officers and may be used to influence the content of the next version of the IDP.

1.3 The IDP is based on data known at the time of publication. However, it is part of the iterative process of developing Local Plan documents and as such will be reviewed regularly to capture the most up-to-date information.

1.4 We ask that comments on this document are made electronically through the council's public consultation website: http://westsuffolk.jdi-consult.net/localplan/

Alternatively, written comments will be accepted and a paper response form can be obtained by telephoning 01284 757368 or emailing planning.policy@westsuffolk.gov.uk

Please send paper comments/letters to:

Strategic Planning Team
Forest Heath District Council
West Suffolk House
Western Way
Bury St Edmunds
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2. Policy background

2.1 The National Planning Policy Framework (NPPF) states in paragraph 162:

> "Local planning authorities should work with other authorities and providers to:
>
> - assess the quality and capacity of infrastructure for transport, water supply, wastewater and its treatment, energy (including heat), telecommunications, utilities, waste, health, social care, education, flood risk and coastal change management, and its ability to meet forecast demands; and
> - take account of the need for strategic infrastructure including nationally significant infrastructure within their areas."

2.2 The council's Core Strategy Policy CS1 provides a hierarchy of settlements across the district. The overall quantum, distribution and phasing of residential development within the district is the subject of the Overall Housing Provision and Distribution document (the SIR) that is being carried out as a result of a successful High Court challenge. The distribution of housing needs to take account of the provision, location and quality of existing and planned infrastructure, and new and improved infrastructure will be informed by the outcomes of the SIR. In addition, the council is consulting on a Site Allocations Local Plan, and the capacity issues examined to produce this draft IDP will influence the final process of site allocation.

2.3 Although the SIR and Site Allocations Local Plans are at an early stage it is important to develop the IDP alongside these documents. The NPPF requires (paragraph 177) 'that there is a reasonable prospect that planned infrastructure is deliverable in a timely fashion.' It continues: "To facilitate this, it is important that local planning authorities understand district-wide development costs at the time Local Plans are drawn up. For this reason, infrastructure and development policies should be planned at the same time, in the Local Plan." This first draft of the IDP should be considered as a broad overall consideration of infrastructure requirements that will be updated and refined as the Local Plans progress through the planning process (to the Preferred Options and Submission draft stages).

3. Evidence background

3.1 This document uses the Nathaniel Litchfield Infrastructure and Environmental Capacity Appraisal (IECA), and the AECOM report, both published in 2009, as the main evidence base, together with the Strategic Flood Risk and Water Cycle Study carried out by Hyder Consulting UK. These documents can be found through the link in paragraph 3.6 below, and the AECOM study link in 3.11.

3.2 Topic Paper No.5 Infrastructure and Delivery, produced to support the Forest Heath Core Strategy Examination in Public (held December 2009 – January 2010), sets out the discussions and consultations held with utility providers, and summarised the IECA report.

3.3 The evidence in these documents has been updated through engaging with the main service and infrastructure providers, and this version of the IDP has been informed by this continuing dialogue and meetings, workshops, and technical consultations held during the spring of 2015. In addition, detailed reports or studies have been produced on specific topics, such as the Red Lodge Wastewater Treatment/Sewerage Capacity Study (2014), and these have been referred to where available and appropriate.

3.4 As well as supporting the SIR and Site Allocations Local Plan this IDP will be used to provide a basis for the calculation of appropriate charging mechanisms/schedules for infrastructure including the Community Infrastructure Levy (CIL).

Infrastructure and Environmental Capacity Appraisal (2009)

3.5 It is essential that the SIR is underpinned by a robust evidence base in terms of what infrastructure is currently available and what will be required to deliver the revised growth strategy. Forest Heath District Council (FHDC) and St Edmundsbury Borough Council (SEBC) jointly commissioned independent consultants Nathaniel Litchfield & Associates to undertake an Infrastructure and Environmental Capacity Appraisal (IECA) for West Suffolk. Published in May 2009 this informed the preparation of the Core Strategy.

3.6 The appraisal sought to assess the need for, and means of, providing and maintaining social, physical and environmental infrastructure to support housing growth in these areas, for the period to 2031. The IECA is available to view and download in its entirety from the council's website:

www.westsuffolk.gov.uk/backgroundpolicyevidence

3.7 The IECA considered the infrastructure capacity of the district as a whole, as well as considering the individual settlements. The role of the appraisal was to consider the infrastructure issues and capacity implications of meeting the Regional Spatial Strategy (RSS) housing

targets (note: the RSS was abolished in January 2013) and the broad strategic locations for growth as identified within the Core Strategy. Stakeholders involved in the preparation of the appraisal are identified at Appendix B.

3.8 In particular the IECA considered how development in the area might be accommodated and identified the following questions.

- What infrastructure would be needed to support this?
- When could it be needed?
- How could it be funded?
- What options exist?
- Any associated risks?
- Where relevant, how could long term future maintenance be secured?

3.9 A fundamental outcome of the 2009 study is that the IECA identified that there were no capacity issues that could not be overcome through appropriate mitigation measures. Similarly, the AECOM study (see below) found that the broad locations of growth as defined at the time the Core Strategy was adopted were all feasible, that is there were no 'show-stoppers' identified. The cost-per-dwelling estimates for the provision of transport infrastructure were relatively low for all growth areas when compared with the regional context.

The AECOM Transport Study

3.10 The AECOM Transport study published in October 2009 has also been used in preparing this IDP as it provided a review of the implications of the transport impacts emerging from the proposals for the broad locations of housing provision being discussed as part of the development of the Forest Heath Core Strategy. The review concentrated on two main aspects of these impacts: the way in which the developments can achieve a high level of sustainable transport connections within the overall land use pattern; and the likely scale and location of specific car traffic impacts on the connections to the strategic road network. Suffolk County Council's Third Local Transport Plan (2011-2031) also provides important detail on transport infrastructure and service provision:

http://www.suffolk.gov.uk/roads-and-transport/public-transport-and-planning/transport-planning-strategy-and-plans/

3.11 The AECOM study is available to view/download from the council's website:

http://www.westsuffolk.gov.uk/planning/Planning_Policies/upload/AECOMFinalVersionTransportStudy.pdf

2015 Infrastructure and service providers' consultation

3.12 Infrastructure and service providers have been engaged in updating the 2009 evidence through a workshop meeting and consultation. Appendix C lists all infrastructure and service provider organisations and all neighbouring authorities engaged and consulted during the course of preparing this draft IDP. This includes bodies and organisations that were represented at a meeting and workshops on 13 April 2015. A table for each of the market towns, key service centres and primary villages, setting out the potential impact of growth on or tipping points for infrastructure and service delivery, is set out at the end of section 6. This updates the 2009 IECA study as far as we are able at this stage.

3.13 The council recognises that larger developments could have an impact outside the administrative boundary, such as water supply, waste disposal, and traffic impacts. While some work has been undertaken to assess traffic impact it is not possible to quantify this at such an early stage in the process. It will be necessary to assess the wider impact of growth proposals and make the necessary arrangements for the mitigation of any such impacts. This will involve continuing to work with other neighbouring councils, especially in Cambridgeshire and Norfolk.

3.14 Consultation on this draft IDP will, undoubtedly, bring further infrastructure requirements to the council's attention and, where considered appropriate, these will be included within future versions of the plan.

4. Infrastructure requirements and constraints

4.1 The Overall Housing Provision and Distribution document (the SIR) sets out a range of options for the distribution of growth in the district to 2031 and these options are tested through the Sustainability Appraisal. Clearly the implications for infrastructure and service delivery differ from option to option, and this should be borne in mind when considering the infrastructure impacts and tipping points noted for each of the market towns, key service centres and primary villages at the end of Section 6.

4.2 Policy CS13 of the Core Strategy requires infrastructure to be in place, and contributions from developers where relevant and appropriate, to ensure infrastructure, services, and community facilities, are provided and/or improved to mitigate the impact of development.

4.3 The remainder of this section sets out a summary of the current situation and key infrastructure requirements or issues by category, and the next section considers each of the towns, key service centres and primary villages identified in Policy CS1 of the Core Strategy.

Highways and transport

Roads

4.4 Highways England is responsible for the national strategic road network, primarily motorways and major trunk roads. Within the district these include the A14 and A11. Suffolk County Council is responsible for the maintenance of all the other adopted roads in the district. Significant challenges, and potential schemes and infrastructure that have been identified as a requirement to support proposed development within the district, are identified below. These are derived from the 2009 AECOM transport study and detailed modelling work undertaken as part of this study that is available to view/download in its entirety from the Council's website (the link is in paragraph 3.11).

4.5 **A14/A142 junction, (Newmarket):** The AECOM study identifies that provision of growth at this location will have a significant impact at this already congested junction and will have the potential to extend queuing back onto the A14. Whilst sustainable transport initiatives will help to reduce both the proposed growth and existing traffic levels, physical improvements will also be required. Improvements could include signals to ease congestion. A longer term option may be to redesign the junction with a new bridge over the A14 and roundabout arrangement, although this would come at a significantly higher cost.

4.6 **Brandon area:** A previous 2006 study, commissioned by Suffolk County Council, looked at traffic congestion issues in Brandon, and reached the following conclusions.

- The Highways England A11 dualling scheme (completed 2014) was anticipated to remove up to a quarter of the traffic currently using the A1065 through the town, but this needs to be assessed post-completion.
- A package of local safety and management improvement were recommended in any case.
- All the major bypass options have considerable construction and environmental cost implications.
- The western relief road possibilities fitted best with the local development directions, but still had serious environmental impacts, and high construction costs.

The original Core Strategy policy CS7, now the subject of the SIR, designated Brandon as a location for additional housing 'dependent upon the provisions of a deliverable relief road'. This reflects considerable local concern that a relief road is essential before significant additional levels of growth can be accommodated, and accepting that such a relief road is more likely to be provided with funding from development to support a substantial part of it.

4.7 **Mildenhall area:** The 2009 AECOM study concluded that all additional traffic generated in Mildenhall would impact on the King Street junction in central Mildenhall which is likely to cause significant delay at an already busy roundabout. Beyond Mildenhall, the majority of traffic will affect the A11 Fiveways junction. The operational efficiency of this junction has been improved as part of the A11 dualling scheme. Whilst the AECOM study considered that the A11 scheme, combined with appropriate sustainable transport measures, should deliver enough capacity to accommodate the growth outlined within the Core Strategy, changes to the USAFE operations at the two air bases as well as the impact of development, in particular in West Row, and potential proposals for a public service Hub need to be considered.

4.8 **A11/A14 junction 38 (east of Newmarket):** Whilst the AECOM study suggested that there will be a significant increase in traffic to/from the A11 to the A14 the layout of this junction is such that it is unlikely that any additional traffic generated as a consequence of development will have an adverse impact on the operation of this junction, or on the A14 itself at this location.

Public transport

4.9 **Rail:** The rail network is controlled and operated through a combination of Network Rail and train operating companies. Key routes passing through the district are the Peterborough to Norwich line, (which stops at Brandon, and Lakenheath by request on Saturdays and Sundays only), the Peterborough to Ipswich line,

which stops at Kennett (near Kentford), and the Cambridge to Ipswich line, (which stops at Newmarket and Kennett).

4.10 **Bus:** The Suffolk Local Transport Plan (LTP3) recognises that bus provision throughout the district generally offers a reasonable to poor level of service, with the exception of Newmarket where, due to the greater population density and employment, a greater level of service is able to be supported by operators.

4.11 **Public transport:** Every effort should be made to increase the patronage of more sustainable modes of transport, particularly trains and buses. We expect that opportunities to integrate public transport within any significant new development will be explored as part of any design brief and/or master-planning exercise conducted as part of the application process and in accordance with our Development Management policies.

Cycling and pedestrians

4.12 The AECOM study found that there is considerable potential for a shift to walking and cycling modes for a wide range of trips for all purposes. The AECOM study proposes a number of improvements to the existing walking and cycling networks that could improve levels of accessibility and encourage modal shift. Suffolk County Council, within the context of LTP3, has identified improvements for walking and cycling networks specifically in and around Brandon and Newmarket. It is expected that the funding for these improvements will come predominantly through development related contributions.

Utilities - natural resources, waste and energy use

4.13 **Air quality:** There is an Air Quality Management Area (AQMA) in Newmarket, and work to implement the Air Quality Action Plan for Newmarket will continue, in conjunction with the objectives of the revised Forest Heath Local Air Quality Strategy. The council aims to manage local air quality in order to discharge its statutory responsibilities arising from the National Air Quality Strategy. In doing so it will improve local air quality to ensure air pollution remains below prescribed levels, thus maintaining the health and well-being of our residents. Local air quality is also dealt with through the planning system, where it may be a material consideration that requires an assessment to be made on the impact of the projected increase in road transport on future air quality (see Policy DM14: Protecting and Enhancing Natural Resources, Minimising Pollution and Safeguarding from Hazards). Slight exceedances of the annual mean for nitrogen dioxide in 2013 were also found at Brandon, attributed to construction of the A11 dualling project from the Fiveways roundabout to Thetford which was completed in 2014.

4.14 A key objective of national and local policy is reducing the demand for natural resources and reducing the production of waste. These could be reduced by implementing sustainable resource management strategies and by increasing the rates of re-use and recycling.

4.15 **Flooding, water supply, wastewater: treatment and drainage:** The purpose of the Stage 2 Strategic Flood Risk Assessment, (SFRA), published in 2012 was to provide a robust evidence base when considering flood risk within the context of the emerging Development Plan. A sequential test was carried out on the potential development sites, as identified by the council in September 2010. The results of the study concluded that all proposed housing sites could accommodate residential development either because they were wholly within Flood Zone 1, or where the sequential layout of sites partially within Flood Zone 2 would result in development in Flood Zone 1. Only one non-residential site was found wholly to be within Flood Zone 3.

4.16 Suffolk County Council is the organisation responsible for co-ordinating flood risk management, and a Suffolk Flood Risk Management Strategy for Suffolk was produced in February 2013. This outlines the process at strategic level for undertaking work to reduce the likelihood of flooding within the county. This document refers to further work which would be done at town level. A Newmarket Surface Water Management Plan (NSWMP) is being undertaken by consultants AECOM, and it is expected that this document will be published in 2015. The NSWMP will outline work undertaken, conclusions, and it will make recommendations for action in respect to surface water flooding issues in Newmarket. In any event, proposals for development in the town should include detailed flood risk assessments, and decisions on development proposals will need to take into account aspects such as the type of development being proposed, the level of flood risk in the location of the development and the extent to which measures can be put in place to provide flood resistance where the type of development proposed could accommodate this.

4.17 All new development proposals bring with them the need to provide appropriate surface water drainage infrastructure in line with Core Strategy Policy CS4: Reduce Emissions, Mitigate and Adapt to future Climate Change and Development Management Policy DM6: Flooding and Sustainable Drainage. In particular, proposals for development will need to demonstrate a robust approach to using Sustainable Urban Drainage Systems (SuDS) or other natural drainage systems where appropriate.

4.18 Water quality constraints were identified in the 2012 Stage 2 Water Cycle Study (WCS) and solutions provided. In terms of flood risk the SIR and Site Allocations Local Plan will be informed by the Environment Agency's Eastern Rivers Project where flood maps for Cut-Off Channel, Lark Soham Lode/Snail and Kennet will be updated. In terms of the SFRA, the Environment Agency has

advised that only a light touch review is required. Surface water management maps are being updated by the Environment Agency, and this information will be shared with the council once finalised.

4.19 The WCS analyses the impact of the proposed growth in the district on the existing water and wastewater infrastructure, and the water environment. Consultation was undertaken with Anglian Water Services, (AWS), the Environment Agency, (EA), Natural England, (NE), and the Ely Group of Internal Drainage Boards, (IDB), to gather the latest data on infrastructure and environmental capacity, and stakeholder policies and aspirations. Additional water and wastewater infrastructure capacity required to accommodate the proposed growth whilst protecting the water environment and responding to climate change, has been identified. This dialogue is ongoing and has been revisited during the preparation of this IDP.

4.20 Recommendations have been made to stakeholders and developers regarding the responsibilities, opportunities, constraints and risks associated with the provision of the required infrastructure. Individual proposed sites which may be particularly constrained by infrastructure requirements (in terms of location, size or phasing) were identified to assist in the Site Allocations Issues and Options process, and to encourage developers to begin investigations in partnership with AWS and the EA.

4.21 Following a number of complaints about foul drainage flooding and odour issues near to Red Lodge, and particularly in Herringswell, an independent study was commissioned by the council into the wastewater treatment and sewerage infrastructure serving Red Lodge. The study, by Hyder Consulting (UK) Limited, was completed and reported in October 2014, and concluded that recent capacity improvements undertaken by Anglian Water Services (AWS) at Tuddenham Waste Recycling Centre (WRC) are sufficient to accommodate proposed development at Red Lodge, and the 2021 embargo placed on expansion by the Core Strategy is no longer appropriate.

4.22 It concluded that depending on growth levels realised, additional modifications/extensions to the WRC processes will be required potentially from 2021 onwards. They advised that availability of land on site, and the design of the facility should allow AWS to provide the necessary improvements as required.

4.23 The study also concluded that many of the historic sewerage network issues were unrelated to growth. Furthermore, changes in network connectivity undertaken by AWS now allow the connection of development sites into the network by utilising recent capacity improvements, and the avoidance of the areas of the network with historic capacity concerns.

4.24 In particular, the study found that wastewater flooding and odour historically experienced at Herringswell relate to operational and resilience issues, rather than a lack of asset capacity. Indeed, it

found that additional flows from proposed development should reduce the risk of wastewater becoming septic, which in turn should reduce the risk of odour nuisance.

4.25 Throughout the district, the provision of sufficient wastewater treatment capacity, whilst complying with strict environmental standards, remains a significant constraining factor to growth. New or improved sewers and upgrades to pumping stations may be required, depending on the location of developments, with major network updates required to support high levels of growth in some part of the district. The council will continue to talk to Anglian Water Services and the Environment Agency to ensure appropriate phasing for delivery of infrastructure improvements and to provide confidence that suitable solutions can be implemented.

4.26 **Waste:** The Energy from Waste facility at Great Blakenham in Mid Suffolk District has been sized to accept additional residual waste arising from housing growth in Suffolk. A network of waste transfer stations is being developed to support this new facility. The county council expects to seek expansion of the Mildenhall Household Waste Recycling Centre as a result of the housing growth proposed by this plan. Some of the options for growth set out in the SIR Issues and Options Report would necessitate either significant expansion at Mildenhall or, potentially, the county council could consider the provision of a replacement Household Waste Site. Joint Development Management Plan Policies DM2: Creating Places – Development Principles and Local Distinctiveness, DM3: Masterplans, and DM4: Development Briefs, require sustainable design and construction measures and resource efficiency and waste reduction measures in new developments, and the council will encourage minimisation of waste and maximisation of recycling through good design.

4.27 **Energy:** UK Power Networks maintain and upgrade power equipment, and move and connect new electricity cables in the east of England. The energy network in Suffolk is provided and maintained by EDF Energy. Energy providers work on an entirely reactive basis to upgrading their network and schedule ongoing upgrade works to improve capacity, prioritising these where growth is likely to impact capacity. Therefore, specific future capacity issues have not been identified, but existing capacity can be outlined in broad terms. UK Power Networks have advised that very large developments may raise issues of competing power requirements of employment/economic development and housing development.

4.28 **Broadband:** Suffolk is currently benefitting from the Better Broadband for Suffolk Programme, which is a pioneering project building a new superfast broadband network to bring better broadband to all parts of the county. The programme is funded by Suffolk County Council, other local councils, the Department for Culture, Media and Sport (DCMS), and BT. The aim is to boost the economy of Suffolk, and improve the life, work and leisure of the

half a million people living and working in the county. By the end of 2015 all premises in Suffolk will have at least 2Mbps. The project is on course to deliver 90% broadband service via fibre, with 85% getting over 24Mbps. By September this year approximately one third of Forest Heath will have fibre broadband, a further third will be considered for fibre broadband between 2015 and 2018 and the remaining third is a mixture of fibre-enabled and fibre provision between 2015 and 2018.

Social and community infrastructure

4.29 **Education:** Suffolk County Council is the Local Education Authority for the district. A Schools Organisation Review to change from a three tier to a two tier schools system is being implemented in Suffolk, and has been completed in Forest Heath. This has resulted in changes across the district, including closure of some school sites.

4.30 Investment will be required to accommodate additional children following proposals for growth in the Core Strategy SIR, and Site Allocations Local Plan. In particular, large scale growth will require investment in additional new schools, including provision for early years. A limited amount of Basic Need funding can be accessed from central government to fund school places arising from latent (background) population growth, but Government policy is that development funds additional places where made necessary as a result of housing growth.

4.31 The 2015 Queen's Speech included an announcement that legislation will be brought forward to double the number of hours of free early education to be made available to parents of three and four-year-olds. The Government is yet to announce the details of this proposal, but given the very limited number of spaces available across the district, it should be assumed that a significant number of additional places will be required as a result of the growth brought forward through the SIR.

4.32 **Health and social care:** The IECA study identifies that with an ageing population and changing demographic, future healthcare will need to reflect the needs of a changing society. The restructuring of these services includes a shift to greater provision in primary care located in community settings, integrated with social care services. The location of GP surgeries and capacity for extension of services will have an impact on growth proposals. In some locations there are physical constraints to increasing the size of GP surgeries and the council will continue to liaise with the West Suffolk Clinical Commissioning Group, NHS England and health and social care service providers.

4.33 The way in which community and emergency services are delivered is in the process of change and adaptation, with some services sharing premises, and the council will continue to liaise with

emergency service providers to ensure the appropriate provision is planned for and resources identified in future versions of the IDP.

4.34 **Emergency services - Police:** Suffolk Constabulary is responsible for policing in the district. During the plan period any requirements for increased policing capacity will be met as required. This could include changes in size to police buildings or relocation of police presence in the community, the provision of mobile units for specific policing activities, and/or changes in numbers of police and support officers.

4.35 **Emergency services - Fire:** Suffolk Fire and Rescue Service provide fire services across the district. It is not envisaged that housing growth will result in a need for additional fire and rescue service provision, but this will be monitored through the plan period in case service conditions change.

4.36 **Emergency services - Ambulance:** The district is served by the East of England Ambulance Service. Proposed growth will generate a need for additional ambulances and response vehicles.

4.37 No specific tipping points or costs were identified for Fire and Ambulance services in the 2009 IECA, however the council will continue to liaise with these service providers to ensure additional resources are planned for.

4.38 **Community facilities - Community centres:** There is no set definition as to what is classified as a community centre but, for the purpose of this IDP, they are defined as any facility that has an area of space that is available for use by the community and hosts community activities on a regular basis. They may include a meeting hall and a kitchen area and will host activities such as youth clubs, community meetings, classes, leisure activities and may be available for private hire. Such buildings include purpose-built community centres, village halls, parish halls and church halls.

4.39 **Community facilities - Libraries:** Libraries in the District are provided by Suffolk County Council and are currently located in Brandon, Lakenheath Mildenhall, and Newmarket. Mobile libraries also serve a number of rural communities. Based on national guidelines developed by the Museums, Libraries and Archives Council, there is no spare capacity at existing libraries to accept additional growth. The growth which is brought forward through this plan will therefore generate a demand for additional library floorspace in the district, either through the expansion of existing buildings, the construction of larger replacement library buildings, and/or the use of existing buildings to provide a limited 'click and collect' style library service.

4.40 **Community facilities - Places of worship:** The provision of adequate and suitable places of worship to meet the needs of the community is an important element of infrastructure planning. In

some cases, this provision can be made through using existing community buildings.

4.41 **Leisure, culture and heritage:** There are three main leisure centres in the district, at Brandon, Mildenhall and Newmarket and these are managed by Abbeycroft Leisure on behalf of the district council. The site at Newmarket includes a swimming pool. Mildenhall has a swimming pool separate from the leisure centre.

4.42 The National Horse Racing Museum opened in Newmarket in 1983 and preserves items of historic and scientific interest connected with horseracing. In 2016 the museum is moving to Palace House in Newmarket, the location of the new National Heritage Centre for Horseracing and Sporting Art. There will be a range of attractions, including a new museum that celebrates the history and science of horseracing, and a national gallery of British sporting art and thoroughbred horses.

4.43 Mildenhall Museum is open part of the week and is managed and run by volunteers. Similarly, the Brandon Heritage Centre is open at weekends from Easter to the end of October.

4.44 The Kings Theatre in Newmarket is owned and run by an amateur dramatic society, the Newmarket Operatic and Dramatic Society (NOMADS).

Green infrastructure, open spaces and Public Rights of Way

4.45 The provision of open spaces for recreation and sport, both within the district and in adjoining neighbouring authorities, is an important resource to enable opportunities for a high quality of life for residents. It can also help to divert pressure away from more environmentally sensitive sites such as the Breckland Special Protection Area (SPA). There will be a requirement for new development to address open space requirements and current shortfalls in provision as prescribed by the Open Space, Sport and Recreation SPD. This will be through a range of different types of resources, including green and blue infrastructure designed as an integral part, or focus of new development. Blue infrastructure is a term that includes formal and informal ponds, swales, ditches and other landscaping or surface water drainage solutions that are designed as part of the landscape and open space resource of the development.

4.46 Public rights of way provide a healthy, safe and sustainable way to access the countryside and other local services. In line with national and local policy, development will be expected to enhance access to the Rights of Way Network.

4.47 JDMP Policies DM2, DM3, DM4 and DM42 require the provision of a range of green/open space resources including:

- green infrastructure, including strategic landscaping, woodland, buffers, blue infrastructure, and links to existing and other planned green and blue infrastructure;
- informal open space;
- age-appropriate children's play facilities;
- formal open space including parks, sports pitches, and allotments; and
- Public Rights of Way.

5. Viability and infrastructure delivery

5.1 When assessing the requirement for infrastructure associated with housing growth in a policy and delivery climate where resources are limited, there is a need to focus on what is most needed and to make choices and trade-offs between the costs and benefits associated with different requirements. This is particularly relevant at a time when public finances continue to be constrained, and where development values are pressured by a difficult market.

5.2 The viability of sustainable development is a key consideration for local planning authorities. The NPPF states in paragraph 173:

> "Pursuing sustainable development requires careful attention to viability and costs in plan-making and decision-taking. Plans should be deliverable. Therefore, the sites and the scale of development identified in the plan should not be subject to such a scale of obligations and policy burdens that their ability to be developed viably is threatened. To ensure viability, the costs of any requirements likely to be applied to development, such as requirements for affordable housing, standards, infrastructure contributions or other requirements should, when taking account of the normal cost of development and mitigation, provide competitive returns to a willing land owner and willing developer to enable the development to be deliverable."

5.3 The 2009 IECA sought to categorise different infrastructure types based on a high level view of its necessity in bringing forward development. It sought to distinguish between 'Fundamental', 'Essential', and 'Required' (see box below). This categorisation helps the local planning authority to consider the balance between the three dimensions of sustainable development (economic, social and environmental) when making a plan and when considering development proposals.

2009 IECA categorisation of infrastructure needs

> **'Fundamental'** infrastructure required to overcome development showstoppers. This category includes infrastructure that is so fundamental to growth taking place that without it development, (or occupancy of development), could not occur, (for example, supply of water, utilities or access). These are infrastructure types that must be provided up-front to support development.
>
> **'Essential'** infrastructure required to ensure development can be implemented with no detrimental effects on site, to the settlement and beyond. Infrastructure in this category will be essential to achieving growth in a timely and sustainable manner, and which must be delivered at least in the medium to long term or to allow later phases to proceed,

but where, (subject to location), a short term alternative might be possible, (for example, school provision, where the possibility exists to bus children to a nearby town).

'Required' infrastructure to ensure sustainable communities are created. This category includes infrastructure which is deemed necessary by virtue of legitimate policy objectives, (for example, around access to amenities), and the desire to achieve high quality and sustainable development.

5.4 For clarification, the third category, 'Required', does not imply that it is not legitimate to seek provision of such infrastructure through S.106 agreements, or other legitimate arrangements, such as through CIL, in accordance with the relevant guidance/SPD and/or charging schedule.

5.5 By definition, the exercise of trying to categorise the degree of need for infrastructure is one that is strategic, largely location blind and is a function of policy weight attached before the establishment of a formal pattern of growth. As the SIR proceeds there will, undoubtedly, be legitimate debate around which infrastructure falls into which category, and it is wholly possible for infrastructure to sit within different categories in different locations/developments, and at different stages of the plan preparation process. Table 1 is the 2009 classification of infrastructure types and may well change as a result of the SIR and Site Allocations Issues and Options consultation.

Table 1 – 2009 IECA classification of infrastructure types

Infrastructure type	Fundamental	Essential	Required
Transport			
Road network	**X**		
Public transport	**X**		
Utilities			
Water	**X**		
Energy	**X**		
Social Infrastructure			
Health - GPs		**X**	
Health - Dentists		**X**	
Social care, nursing and all residential homes with care			**X**
Education – primary schools (pupil places)		**X**	
Education – secondary schools (pupil places)		**X**	
Community centres			**X**
Libraries			**X**
Emergency services			
Police, ambulance, fire and rescue		**X**	

Infrastructure type	Fundamental	Essential	Required
Natural environment & green infrastructure			
Local/national nature reserves			**X**
Sports pitches			**X**
Non-pitch sports areas			**X**
Amenity open space			**X**
Allotments			**X**
Children's play areas			**X**
Leisure, business and retail			
Swimming pools			**X**
Sports halls			**X**
Indoor bowls			**X**
Business support			**X**
Arts and culture (museums/ galleries, and theatres)			**X**
Local convenience shop		**X**	
Other retail (including town centre and key service centre provision)			**X**

5.6 In addition to the infrastructure types categorised in this 2009 table, the district and county councils also consider early years education, as required by law, to be essential infrastructure. Furthermore, it should be understood that social care refers to all the different types of housing with a care element, such as sheltered housing, extra care housing, and residential care.

6. Infrastructure and service constraints, issues and priorities

6.1 The following tables identify existing levels of infrastructure and requirements to meet future growth for the market towns, key service centres and primary villages within the district. This is intended to give a broad indication of the types of infrastructure identified by infrastructure and service providers required to address deficits and support different levels of growth.

6.2 The growth options set out in the SIR present two realistic options for housing provision, that is: 1) meeting the 'all homes' housing requirement of the SHMA (2012); and 2) uplifting the 'all homes' housing requirement of the SHMA (2012) by 10% to assist in meeting more of the district's affordable housing needs.

	Number of homes needed each year	Number of homes needed over 20 years (2011 – 2031)	Homes already built or planned (as at 31st March 2014)	Additional homes required 2011 - 2031
Option 1 The 'all homes' requirement of the SHMA (2012)	350	7000 homes	1700	5300
Option 2 Uplift for Affordable Housing (+10%)	385	7700	1700	6000

6.3 The tables are based on the following.

- The existing provision and infrastructure requirements in these settlements are based on the IECA analysis of tipping points as updated through the infrastructure and service providers' workshop and technical consultation exercise carried out in the spring of 2015.
- The constraints, issues and infrastructure requirements identified by infrastructure and service providers in the spring of 2015 in general, and in specific instances for each of the market towns, key service centres and primary villages named in Policy CS1 of the Core Strategy.
- Future versions of the IDP will reflect the pattern of growth as it emerges via the SIR and Site Allocations process.

Potential impact of growth on/tipping points for infrastructure and service delivery in market towns, key service centres, and primary villages

Summer 2015

Note 1: The following information is based on the Infrastructure and Environmental Capacity Appraisal (Nathanial Litchfield & Partners) May 2009, with some information from the Forest Heath Parish Profiles 2011 and the ***** Office for National Statistics (ONS) Population Estimates 2013, and has been updated with information supplied by infrastructure and service providers, spring 2015. Please note that these estimates do not account for the expected increases in need for early education places to be brought in through legislative changes announced in the 2015 Queen's Speech.

Note 2: N/A = Not available at this time.

***Note 3:** The ONS has published a notice of error in the 2013 published material for foreign armed forces. The distribution of the foreign armed forces special population presented in the tables for the year 2013 has been incorrectly calculated for certain local authorities in England. This error has a significant impact on the estimate for Forest Heath, where the published population estimate is 3.3% higher than the correct value. ONS have published the corrected population total for the district, but this information isn't yet available at parish level. ONS will do this at the next planned release of the population estimates in October 2015 for the small area estimates, and the tables will be updated for the next version (to accompany the Preferred Options SIR and SALP).

Beck Row (Primary Village) - Existing Infrastructure and Opportunity Areas

ONS Population Estimate 2013: not available **(Parish profile 2011 Parish Population 4,220)**			
Existing Infrastructure			
Open Space & sport: • 19ha nature reserve • 0.9ha sports pitches • 0.06ha play space	Health & Emergency Services: • 1 Nursing home providing 6 places	Community & Education: • Mobile Library Service • Beck Row Community Centre • 1 Primary School with capacity for 210 pupils	Retail Services & Leisure: • Londis General Store • Post Office • Hairdresser, Takeaway • Public Houses
Summary of Environmental/Physical Constraints			
Green Infrastructure • Local Nature Reserve at centre of settlement	Transport • Congestion around airbase. Will benefit from highway improvements around Beck Row and Mildenhall, particularly if a relief road comes forward in the longer term. • A1101 provides boundary to south	Other constraints • Airbase white safeguard zone to south and west • Potential coalescence with Holywell Row and Wilde Street	
Opportunity Areas			
<u>Central</u>: central expansion on small strategic sites to infill existing gaps in the settlement structure. Potential range: 240 – 420 homes <u>Education requirements in this growth range:</u> 240 units – 24 Early Education, 60 Primary, 43 Secondary and 10 Sixth Form pupils 420 units – 42 Early Education, 105 Primary, 76 Secondary, 17 Sixth Form pupils			

Beck Row – infrastructure and service requirements and tipping points

	New Homes		
	Up to 100	100 - 250	250 - 500
[1]Education	100 units: 10 Early Education 25 Primary 18 Secondary 4 Sixth Form	250 units: 25 Early Education 63 Primary 45 Secondary 10 Sixth From	500 units: 50 Early Education 125 Primary 90 Secondary 20 Sixth Form
Health	N/A	N/A	N/A
Highways and transport	N/A	N/A	N/A
Community facilities, sport/recreation, & leisure	N/A	N/A	N/A
Utilities [2]Anglian Water	See note[2] below		

Additional comments on scale of growth and potential impact on infrastructure/service delivery in Beck Row

[1]Beck Row Primary School – discussions to expand the school on its existing site by re-locating the community facility (occupies spaces within the school) to new premises elsewhere in the village. School would expand to 315 places but would require access to additional land. A 420 place school will need a site twice as large as its current site.

Current site = 10,610 sq m. DfE Guidelines suggest 10,926 sq m. for a 210 place Primary School.

Increasing to 315 places will require a site area of 15,189 sq m. There is open space to rear of school that could be used.

A 420 place school would require nearly 20,000 s q m.

Note: Provision for early years should be assessed

[2]There is currently capacity at the receiving Mildenhall Water Recycling Centre to accommodate all levels of growth indicated. The foul flows from future growth will have an impact on the existing foul sewerage network. The foul infrastructure requirements will be dependant on the location, size and phasing of the development. All sites will require a local connection to the existing sewerage network which may include network upgrades.

Note: Mildenhall WRC serves West Row, Beck Row and Mildenhall. The capacity comments above for the WRC does not take account of the cumulative effect of growth. For example if growth in all three areas of interest were all on the highest scale indicated and all came forward then there may not be capacity for the total and upgrades may be required.

[3] Noise contours expected to change following proposed closure of Mildenhall airbase and change at Lakenheath airbase

Brandon (Market Town) - Existing Infrastructure and Opportunity Areas

ONS Population Estimate 2013: 9,769 (Parish Profile Population figure 2011: 8,750)			
Existing Infrastructure			
Open Space & sport: • 6.2ha Sports Grounds • 0.8ha non-pitch sports • 1.19ha Play space • Brandon Leisure Centre with a 4 court sports hall and indoor bowls	Health & Emergency Services: • 3 GP Surgeries • 2 Dental practices • 1 Nursing home providing 55 places • Brandon Police Station • Community Paramedic Service • Brandon Fire Station	Community & Education: • Brandon Library • Brandon Community Centre and Old School House • 2 Primary Schools with capacity for 420 and 315 pupils • *(Middle school closed August 2012.)* • New 11 – 16 Free School opened September 2012 with capacity for 500 pupils	Retail Services & Leisure: • Small range of comparison retailers • Several supermarkets including Tesco and Co-op • Local convenience stores • Key services including a main Post Office, chemists, hairdressers and Bank
Summary of Environmental/Physical Constraints			
Green Infrastructure • Flood corridor along river • SSSI to south • Brandon park and large areas of woodland	Built Heritage • Conservation areas in central area and listed buildings create sensitive built form	Transport • Hourly weekday rail service to Cambridge and Norwich • A11 improvements completed • Potential junction capacity issues	Other constraints • General retention of character and setting through good design • Environmental impact on the SPA for both housing and roads.

Opportunity Areas (2009)
Central: Infill and redevelopment of sites in the existing urban envelope of the settlement. Potential for small-scale edge of settlement expansion on sites located nearby to the central area near to the river, subject to implications of flood risk, and on the fringes of the settlement, where suitably located such as partially to the south. Possibility of windfall sites. Potential range 630 – 1,000 homes. 630 units – 63 Early Education, 158 Primary, 113 Secondary, 25 Sixth Form pupils 1000 units – 100 Early Education, 250 Primary, 180 Secondary, 40 Sixth Form pupils

Brandon – infrastructure and service requirements and tipping points

	New Homes		
	Up to 100	100 - 250	250 - 500
[1]Education	100 units: 10 Early Education 25 Primary 18 Secondary 4 Sixth Form	250 units: 25 Early Education 63 Primary 45 Secondary 10 Sixth From	500 units: 50 Early Education 125 Primary 90 Secondary 20 Sixth Form
Health	N/A	N/A	N/A
Highways and transport	N/A	N/A	N/A
Community facilities, sport/recreation, & leisure	N/A	N/A	N/A
Utilities [2]Anglian Water	See note[2] below		

Additional comments on scale of growth and potential impact on infrastructure/service delivery in Brandon

[1]Potential to increase one of the primary schools by 105 places. Both on tight sites so no possibility of further expansion. Significant new housing development will require a new primary school.

IES Breckland Free School (11 – 16) will also be affected. The school site is 46,460 sq m. while the DfE guidelines suggest it should have a minimum of 41, 500 sq m. For a development of 1000 units the school could absorb all 175 of these pupils if the capacity increased to 600. Some pupils may apply to attend Mildenhall Academy.

Note: Provision for early years should be assessed

[2]There is currently spare capacity at the receiving Brandon Water Recycling Centre to accommodate growth. The largest scale of growth category (1000-2500) may require upgrades. Any required upgrades will be funded by Anglian Water however they will need to be planned and funded through our 5 year business plan, approved by our economic regulator Ofwat. We can look at this in more detail when potential sites have been identified to assess the impact of potential growth.

The foul flows from future growth will have an impact on the existing foul sewerage network. The foul infrastructure requirements will be dependant on the location, size and phasing of the development. All sites will require a local connection to the existing sewerage network which may include network upgrades.

Exning (Primary Village) - Existing Infrastructure and Opportunity Areas

ONS Population Estimate 2013: not available **(Parish Profile 2011 Parish Population 2,150)**			
Existing Infrastructure			
Open Space & sport: • 3ha sports pitches • 0.3ha non-pitch sports • 3ha Allotments • 0.11ha play space	Health & Emergency Services: • 1 Dentist in one surgery	Community & Education: • Mobile Library Service • Exning Village hall • 1 Primary School with capacity for 210 pupils	Retail Services & Leisure: • Londis General Store • Post Office • 4 Public Houses
Summary of Environmental/Physical Constraints			
Green Infrastructure • Devil's Ditch to the west	Built Heritage • Conservation area in centre	Transport • A14 forms boundary to the south • Potential A14 Junction 37 issues • Cycle and bus links to Newmarket required • Impact on Newmarket junction capacities • Potential impact on Newmarket AQMA • Impact on horse movements in Newmarket	Other constraints • Potential settlement coalescence with Burwell
Opportunity Areas			
West: strategic site extension to west. Potential range: 1,240 – 2,170 homes 1240 units – 124 Early Education, 310 Primary, 223 Secondary, 50 Sixth Form pupils 2170 units – 217 Early Education, 543 Primary, 391 Secondary, 87 Sixth Form pupils			

Exning – infrastructure and service requirements and tipping points

	New Homes		
	Up to 100	100 - 250	250 - 500
[1]Education	100 units: 10 Early Education 25 Primary 18 Secondary 4 Sixth Form	250 units: 25 Early Education 63 Primary 45 Secondary 10 Sixth From	500 units: 50 Early Education 125 Primary 90 Secondary 20 Sixth Form
Health	N/A	N/A	N/A
Highways and transport	N/A	N/A	N/A
Community facilities, sport/recreation, & leisure	N/A	N/A	N/A
Utilities [2]Anglian Water [3]UK Power Networks	 See note[2] below See note[3] below		

Additional comments on scale of growth and potential impact on infrastructure/service delivery in Exning

[1]Primary school has double mobile on site reflecting pressure on places. Plans to replace with permanent accommodation and possibly increase capacity to 315.

A range of 1240 - 2170 new houses in this area will require one new primary school ranging in size from 315 to 630 places

Note: Provision for early years should be assessed

[2]There is currently capacity at the receiving Newmarket Recycling Centre to accommodate all levels of growth indicated. The foul flows from future growth will have an impact on the existing foul sewerage network. The foul infrastructure requirements will be dependant on the location, size and phasing of the development. All sites will require a local connection to the existing sewerage network which may include network upgrades.

Note: Newmarket WRC serves Newmarket, Exning and Kentford. The capacity comments above for the WRC does not take account of the cumulative effect of growth. For example if growth in <u>all</u> three areas of interest were all on the highest scale indicated and all came forward then there may not be capacity and upgrades may be required.

[3] Capacity in Exning up to 400, above this number would need localised reinforcement paid for through S106. See Newmarket note[3]

Kentford (Primary Village) - Existing Infrastructure and Opportunity Areas

<table>
<tr><td colspan="4">ONS Population Estimate 2013: not available (ONS population estimate 2008 = 1,184) (Parish Profile Population figure 2011: 420)</td></tr>
<tr><td colspan="4">Existing Infrastructure</td></tr>
<tr><td>Open Space & sport:

• None identified</td><td>Health & Emergency Services:

• None identified</td><td>Community & Education:

• Mobile Library Service
• Village Hall
• No primary school in village – pupils attend Moulton Primary School nearly 2 miles to the south west</td><td>Retail Services & Leisure:

• General Store & Post Office
• 2 Public Houses</td></tr>
<tr><td colspan="4">Summary of Environmental/Physical Constraints</td></tr>
<tr><td>Green Infrastructure

• Landscape sensitivity to the south
• Flood corridor to west</td><td colspan="2">Transport

• A14 forms boundary to the north
• Junction capacity in settlement
• Poor connection to railway station which has infrequent service
• Impact on Newmarket junction capacity
• Impact on the Newmarket AQMA
• Impact on horse movements in Newmarket
• Local safety concerns</td><td>Other constraints

• Potential coalescence with Needham Street</td></tr>
<tr><td colspan="4">Opportunity Areas</td></tr>
<tr><td colspan="4">Central: central expansion on small strategic sites to infill existing gaps in the settlement structure.
Potential range: 250 – 440 homes

250 units – 25 Early Education, 63 Primary, 45 Secondary, 10 Sixth Form pupils
440 units – 44 Early Education, 110 Primary, 79 Secondary, 18 Sixth Form pupils</td></tr>
</table>

Kentford – infrastructure and service requirements and tipping points

	New Homes	
	Up to 100	100 - 250
[1]Education	100 units: 10 Early Education 25 Primary 18 Secondary 4 Sixth Form	250 units: 25 Early Education 63 Primary 45 Secondary 10 Sixth Form
Health	N/A	N/A
Highways and transport	N/A	N/A
Community facilities, sport/recreation, & leisure	N/A	N/A
Utilities [2]Anglian Water	See note[2] below	
Additional comments on scale of growth and potential impact on infrastructure/service delivery in Kentford		

[1]Recently approved housing applications will require Moulton Primary to expand from 210 places to 315 places. This will require additional land which is expected to be available. But this would be the maximum.

Note: Provision for early years should be assessed

[2]There is currently capacity at the receiving Newmarket Recycling Centre to accommodate all levels of growth indicated. The foul flows from future growth will have an impact on the existing foul sewerage network. The foul infrastructure requirements will be dependant on the location, size and phasing of the development. All sites will require a local connection to the existing sewerage network which may include network upgrades.

Note: Newmarket WRC serves Newmarket, Exning and Kentford. The capacity comments above for the WRC does not take account of the cumulative effect of growth. For example if growth in all three areas of interest were all on the highest scale indicated and all came forward then there may not be capacity and upgrades may be required.

Lakenheath (Key Service Centre) - Existing Infrastructure and Opportunity Areas

ONS Population Estimate 2013: 6,727 (Parish Profile Population figure 2011:4,880)			
Existing Infrastructure			
Open Space & sport: • 3.7ha Sports Grounds • 0.3ha non-pitch sports • 0.16ha Allotments • 0.23ha play space	Health & Emergency Services: • 3 GPs in one Surgery • 1 Nursing home providing 21 places	Community & Education: • Lakenheath Library • Lakenheath Memorial hall, Scout Hall, Football club, and royal British Legion hall • 1 Primary School *with capacity for 315 pupils*	Retail Services & Leisure: • Co-op convenience store • Range of services including a Post Office and *a bank* • Several public houses
Summary of Environmental/Physical Constraints			
Green Infrastructure • SSSIs to the east • Heathland to the east • Areas of potential flooding to immediate west and part north • Major drainage channel	Built Heritage • Conservation area in west central area • Some listed buildings	Transport • Completed A11 junction improvements will link Lakenheath better • Bus service funding is required to encourage a shift from car commuting • This scale of development may impact on junction capacity • Potential impact on key facilities, including schools • Limited sustainable transport provision • Local safety concerns	Other constraints • MOD safeguard zone around Airbase • Noise from jet aircraft

Opportunity Areas
North: Contained strategic site extension to Lakenheath on the north side up to flood corridor. Potential range: 1,200 – 2, 140 homes 1200 units – 120 Early Education, 300 Primary, 216 Secondary, 48 Sixth Form 2140 units – 214 Early Education, 535 Primary, 385 Secondary, 86 Sixth Form pupils --- Central: Infill and redevelopment of sites in the existing urban envelope of the settlement, including potential small extensions to south east without infringing on the heathland. Potential range: 600 – 1,050 homes 600 units – 60 Early Education, 150 Primary, 108 Secondary, 24 Sixth Form pupils 1050 units – 105 Early Education, 263 Primary, 189 Secondary, 42 Sixth Form pupils --- East: extension to settlement to east without infringing on setting of SSSI Potential range: 640 – 1,120 homes 640 units – 64 Early Education, 160 Primary, 115 Secondary, 26 Sixth Form pupils 1120 units – 112 Early Education, 280 Primary, 202 Secondary, 45 Sixth Form pupils --- South: strategic extension to south west to west of the B1112 up to existing waterway. Potential range: 200 – 350 homes 200 units – 20 Early Education, 50 Primary, 36 Secondary, 8 Sixth Form pupils 350 units – 35 Early Education, 88 Primary, 63 Secondary, 14 Sixth Form pupils

Lakenheath – infrastructure and service requirements and tipping points

	New Homes			
	Up to 100	100 - 250	250 - 500	500 – 1,000
[1]Education	100 units: 10 Early Education 25 Primary 18 Secondary 4 Sixth Form	250 units: 25 Early Education 63 Primary 45 Secondary 10 Sixth From	500 units: 50 Early Education 125 Primary 90 Secondary 20 Sixth Form	1000 units: 100 Early Education 250 Primary 180 Secondary 40 Sixth Form
Health	N/A	N/A	N/A	N/A
Highways and transport	N/A	N/A	N/A	N/A
Community facilities, sport/recreation, & leisure	N/A	N/A	N/A	N/A
Utilities [2]Anglian Water	See note[2] below			

Additional comments on scale of growth and potential impact on infrastructure/service delivery in Lakenheath

[1]If significant housing comes forward then a new primary school will be required in Lakenheath – 3 potential sites have been identified in Lakenheath with plan to open in September 2017 on one of these sites. The size of the site and school required will depend on the total scale of housing allowed in the village.

A fourth site at Eriswell has also been identified which may be required in addition to Lakenheath – pupils from proposed new housing (200) plus Lords Walk (500)

Note: Provision for early years should be assessed

[2]There is currently spare capacity at the receiving Lakenheath Water Recycling Centre to accommodate growth. The largest scale of growth category (1000-2500) may require upgrades. Any required upgrades will be funded by Anglian Water however they will need to be planned and funded through our 5 year business plan, approved by our economic regulator Ofwat. We can look at this in more detail when potential sites have been identified to assess the impact of potential growth.
The foul flows from future growth will have an impact on the existing foul sewerage network. The foul infrastructure requirements will be dependant on the location, size and phasing of the development. All sites will require a local connection to the existing sewerage network which may include network upgrades.

[3] Noise constraints may change following proposed closure of Mildenhall airbase and change at Lakenheath airbase

Mildenhall (Market Town) - Existing Infrastructure and Opportunity Areas

ONS Population Estimate 2013: 10,428 (Parish Profile Population figure 2011:10,810)			
Existing Infrastructure			
Open Space & sport: • Cavenham Heath and Barton Mills Nature Reserve • 13.2ha Sports ground • 0.25ha non-pitch sports • 0.6ha allotments • 1.15ha play space • Swimming pool • Dome Leisure Centre Sports Hall provision equivalent to 5 badminton courts	Health & Emergency Services: • 7 GPs in two Surgeries • 6 Dentists in two practices • 3 Nursing Homes providing 70 places • Mildenhall Police Station • Mildenhall Ambulance Station • Mildenhall Fire Station	Community & Education: • Mildenhall Library • Mildenhall Community Centre, Jubilee Centre and numerous smaller community spaces • 2 Primary schools with capacity for 476 and 420 pupils • *Both Middle Schools closed August 2012* • 1 Upper School *with capacity for* 1555 pupils	Retail Services & Leisure: • Range of town centre comparison shops • Sainsbury's and Co-op supermarkets • Local convenience shops and local shopping parades • Range of services including two Post Offices and Bank • 5 public houses • 2 petrol stations
Summary of Environmental/Physical Constraints			
Green Infrastructure • Protected green land to east at Mildenhall Woods • Flood risk river corridor to south	Built Heritage • Conservation area in centre	Transport • Junction capacity in Mildenhall is limited • Potential need for a Mildenhall relief road to reduce congestion or alternative highways solutions • Cumulative impact from adjacent growth • SPA impacts associated with a relief road	Other constraints • Potential settlement coalescence with West row and Holywell Row • Cordon Sanitaire to west • Airbase to north with safeguard zone • Potential impact of new use of the Airbase site

Opportunity Areas
West: large strategic site extension to Mildenhall on the west side along West Row Road. Potential range: 3,000 – 5,260 3000 units – 300 Early Education, 750 Primary, 540 Secondary, 120 Sixth Form pupil 5260 units – 526 Early Education, 1315 Primary, 947 Secondary, 210 Sixth Form --- Central: infill and redevelopment of sites in the existing urban envelope of the settlement. Possibility of windfall sites and small sites on the edge of built-up area. Potential range: 240 – 420 240 units – 24 Early Education, 60 Primary, 43 Secondary, 10 Sixth Form pupils 420 units – 42 Early Education, 105 Primary, 76 Secondary, 17 Sixth Form pupils --- East: small scale extension to east infilling up to boundary of landscape constraints, similar to existing development in this location. Potential range: 100 – 180 100 units – 10 Early Education, 25 Primary, 18 Secondary, 4 Sixth Form pupils 180 units – 18 Early Education, 45 Primary, 32 Secondary, 7 Sixth Form pupils

Mildenhall – infrastructure and service tipping points

	New Homes				
	Up to 100	100 - 250	250 - 500	500 – 1,000	1,000 – 2,500
[1]Education	100 units: 10 Early Education 25 Primary 18 Secondary 4 Sixth Form	250 units: 25 Early Education 63 Primary 45 Secondary 10 Sixth From	500 units: 50 Early Education 125 Primary 90 Secondary 20 Sixth Form	1000 units: 100 Early Education 250 Primary 180 Secondary 40 Sixth Form	2500 units: 250 Early Education 625 Primary 450 Secondary 100 Sixth Form
Health	N/A	N/A	N/A	N/A	N/A
Highways and transport	N/A	N/A	N/A	N/A	N/A
Community facilities, sport/recreation, & leisure	N/A	N/A	N/A	N/A	N/A
Utilities [2]Anglian Water	See note[2] below				

Additional comments on scale of growth and potential impact on infrastructure/service delivery in Mildenhall

[1]Major development to the west could require 2 new primary schools. Secondary school aspires to relocate to west area in new housing.

If 5,000 new houses this would trigger a new secondary school and 3 primary schools.

Consideration must be given to the cumulative impact of all other potential developments in the Mildenhall Academy catchment, over and above the developments in and around Mildenhall itself.

		Pupil yield			Pupil yield		
SETTLEMENT	**HOUSES**	**11 - 16**	**Post- 16**	**HOUSES**	**11 - 16**	**Post- 16**	
Beck Row	240	43	10	420	76	17	
Brandon	630	113	25	1000	180	40	assumes all pupils attend IES
Brandon		0	0		0	0	
Lakenheath North	1200	216	48	2140	385	86	
Lakenheath Central	600	108	24	1050	189	42	

Lakenheath East	640	115	26	1120	202	45	
Lakenheath South	200	36	8	350	63	14	
Red Lodge West	600	108	24	1050	189	42	
Red Lodge North	200	36	8	350	63	14	
Red Lodge South	340	61	14	600	108	24	
Mildenhall West	3000	540	120	5260	947	210	
Mildenhall Central	240	43	10	420	76	17	
Mildenhall East	100	18	4	180	32	7	
TOTAL	**7990**	**1437**	**321**	**13940**	**2510**	**558**	

This assumes all development comes forward which is unlikely, but gives an indication of how Mildenhall Academy may be affected by large-scale housing growth across the district.

Note: Provision for early years should be assessed

[2]There is currently capacity at the receiving Mildenhall Water Recycling Centre to accommodate all levels of growth indicated. The foul flows from future growth will have an impact on the existing foul sewerage network. The foul infrastructure requirements will be dependant on the location, size and phasing of the development. All sites will require a local connection to the existing sewerage network which may include network upgrades.

Note: Mildenhall WRC serves West Row, Beck Row and Mildenhall. The capacity comments above for the WRC does not take account of the cumulative effect of growth. For example if growth in all three areas of interest were all on the highest scale indicated and all came forward then there may not be capacity for the total and upgrades may be required.

[3] Potential issues of congestion on key junctions within the settlement associated with development to the West of the Town

Newmarket (Market Town) - Existing Infrastructure and Opportunity Areas

ONS Population Estimate 2013: 17,161 (Newmarket & Red Lodge) (Census Population figure 2011: 16,598)			
Existing Infrastructure			
Open Space & sport: • 6.2ha Sports Grounds • 0.89ha non-pitch sports • 7.13ha Allotments • 1.64ha play space • Swimming Pool • Sports Hall provision equivalent to 7 badminton courts	Health & Emergency Services: • 18 GPs in three Surgeries • 13 Dentists in six practices • 2 Nursing homes providing 94 places • Newmarket Hospital providing outpatient services • Newmarket Police Station • Newmarket Ambulance Station • Newmarket Fire Station	Community & Education: • Newmarket Library • Memorial hall • Studlands Community Centre • 4 Primary Schools with capacity for 945 pupils • *Both Middle Schools closed August 2012* • 1 Upper School with capacity for 922 pupils	Retail Services & Leisure: • King's theatre • Comprehensive range of services with good choice • Several local shopping parades • Town centre with substantial comparison shopping offer • Several large supermarkets • Local convenience shops • 2 Post Offices • 15 Public Houses
Summary of Environmental/Physical Constraints			
Green Infrastructure • Studland & Newmarket Heath • Highly sensitive landscape character • Small areas of potential flooding along flood corridor	Built Heritage • Conservation area central and east	Transport • A14 Junction 37 capacity and congestion • Impact of development on AQMA • A14 and railway provides boundary • Impact on junction capacity in Newmarket • Impact on horse movements	Other constraints • Potential settlement coalescence with Exning. Retain a buffer • Horse racing industry and horse movements
Opportunity Areas			
Central: Infill and redevelopment of sites in the existing urban envelope of the settlement. Potential range: 360 – 630 homes North-East: strategic site extension to existing settlement area around Hatchfield Farm, which is separated from the wider character of the studlands. Potential range: 1,200 – 2,100 homes			

Newmarket – infrastructure and service requirements and tipping points

	New Homes				
	Up to 100	100 - 250	250 - 500	500 – 1,000	1,000 – 2,500
[1]Education	100 units: 10 Early Education 25 Primary 18 Secondary 4 Sixth Form	250 units: 25 Early Education 63 Primary 45 Secondary 10 Sixth From	500 units: 50 Early Education 125 Primary 90 Secondary 20 Sixth Form	1,000 units: 100 Early Education 250 Primary 180 Secondary 40 Sixth Form	2500 units: 250 Early Education 625 Primary 450 Primary 100 Sixth Form
Health	N/A	N/A	N/A	N/A	N/A
Highways and transport	N/A	N/A	N/A	N/A	N/A
Community facilities, sport/recreation, & leisure	N/A	N/A	N/A	N/A	N/A
Utilities [2]Anglian Water [3]UK Power Networks	 See note[2] below See note[3] below				

Additional comments on scale of growth and potential impact on infrastructure/service delivery in Newmarket

[1] Can't ensure expansion of existing primary schools due to constraints of sites. Location of new primary school dependent on distribution of housing.

Note: Provision for early years should be assessed

[2] There is currently capacity at the receiving Newmarket Water Recycling Centre to accommodate all levels of growth indicated. The foul flows from future growth will have an impact on the existing foul sewerage network. The foul infrastructure requirements will be dependant on the location, size and phasing of the development. All sites will require a local connection to the existing sewerage network which may include network upgrades.

Note: Newmarket WRC serves Newmarket, Exning and Kentford. The capacity comments above for the WRC does not take account of the cumulative effect of growth. For example if growth in all three areas of interest were all on the highest scale indicated and all came forward then there may not be capacity and upgrades may be required for the total.

[3] Capacity in Newmarket up to 2,000 and Exning 400, above this number would need localised reinforcement paid for through S106.

Red Lodge (Key Service Centre) - Existing Infrastructure and Opportunity Areas

ONS Population Estimate 2013: 4,701 (2011 Census Population figure : 3,842)

Existing Infrastructure

Open Space & sport:	Health & Emergency Services:	Community & Education:	Retail Services & Leisure:
• 0.4ha play space • Sports pitches (tennis courts and football pitch) • Non-pitch sports • Allotments	• 3 GPs in one Surgery • 3 Dentists in one practice	• Red Lodge Millennium Centre • New primary school opened September 2012. Capacity to increase to 420 places by September 2015	• Red Lodge Local Shop • Supermarket • pharmacy • take-aways • Post Office • Public House

Summary of Environmental/Physical Constraints

Green Infrastructure	Transport	Other constraints
• SSSIs in the centre • Stone Curlew special protection area to east • County Wildlife site to north • Flood potential along river corridor in south west	• Eastbound A11/A14 junction would ease congestion, current growth may have impact on the rural road network • A11 is physical boundary to the north west	• Existing masterplan site in the east is a key consideration

Opportunity Areas

West: strategic site extension to Red Lodge up to A14 with some use of brownfield sites.
Potential range: 600 – 1, 050 homes

600 units – 60 Early Education, 150 Primary, 108 Secondary, 24 Sixth Form
1050 units – 105 Early Education, 263 Primary, 189 Secondary, 42 Sixth Form pupils

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North: strategic site expansion to north and east following on from master-planned development.
Potential range: 200 – 350 homes
200 units – 20 Early Education, 50 Primary, 36 Secondary, 8 Sixth Form pupils
350 units – 35 Early Education, 88 Primary, 63 Secondary, 14 Sixth Form

South: strategic site extension to settlement to south.
Potential range: 340 – 600 homes

340 units – 34 Early Education, 85 Primary, 61 Secondary, 14 Sixth Form pupils
600 units – 60 Early Education, 150 Primary, 108 Secondary, 24 Sixth Form pupils

Red Lodge – infrastructure and service requirements and tipping points

	New Homes				
	Up to 100	100 - 250	250 - 500	500 – 1,000	1,000 – 2,500
[1]Education	100 units: 10 Early Education 25 Primary 18 Secondary 4 Sixth Form	250 units: 25 Early Education 63 Primary 45 Secondary 10 Sixth From	500 units: 50 Early Education 125 Primary 90 Secondary 20 Sixth Form	1,000 units: 100 Early Education 250 Primary 180 Secondary 40 Sixth Form	2500 units: 250 Early Education 625 Primary 450 Primary 100 Sixth Form
Health	N/A	N/A	N/A	N/A	N/A
Highways and transport	N/A	N/A	N/A	N/A	N/A
Community facilities, sport/recreation, & leisure	N/A	N/A	N/A	N/A	N/A
Utilities [2]Anglian Water [3]UK Power Networks	See note[2] below See note[3] below				

Additional comments on scale of growth and potential impact on infrastructure/service delivery in Red Lodge

[1]Basic Need and further housing growth means a second primary school is required. Two potential sites are actively being pursued and it is hoped to secure one of these by summer 2015 with plan to open in September 2017.

Note: Provision for early years should be assessed

[2] There is currently spare capacity at the receiving Tuddenham Water Recycling Centre to accommodate growth. The largest scale of growth category (1000-2500) may require upgrades. Any required upgrades will be funded by Anglian Water however they will need to be planned and funded through our 5 year business plan, approved by our economic regulator Ofwat. We can look at this in more detail when potential sites have been identified to assess the impact of potential growth.
The foul flows from future growth will have an impact on the existing foul sewerage network. The foul infrastructure requirements will be dependant on the location, size and phasing of the development. All sites will require a local connection to the existing sewerage network which may include network upgrades.

[3] Large scale growth at Red Lodge may require improvements e.g. a link between Burwell and Kennett.

West Row (Primary Village) - Existing Infrastructure and Opportunity Areas

<table>
<tr><td colspan="4">ONS Population Estimate 2008: 1,805 (Parish Profile Population figure 2011:no separate Parish Profile data for West Row for 2011)</td></tr>
<tr><td colspan="4">Existing Infrastructure</td></tr>
<tr><td>Open Space & sport:

• 1.1ha sports pitches
• 0.4ha non-pitch sports
• 1.2ha Allotments
• 0.2ha play space</td><td>Health & Emergency Services:

• None identified</td><td>Community & Education:

• Mobile Library Service
• West Row Village Hall
• 1 Primary School with capacity for 207 pupils</td><td>Retail Services & Leisure:

• West Row Village Store
• Post Office
• Take-aways
• Hairdressers
• Public House</td></tr>
<tr><td colspan="4">Summary of Environmental/Physical Constraints</td></tr>
<tr><td>Green Infrastructure

• Flood corridor to south</td><td colspan="2">Transport

• Dispersed rural road network
• Will benefit from highway improvements around wider Mildenhall area
• Impact of growth on Mildenhall</td><td>Other constraints

• Potential settlement coalescence with Mildenhall
• Airbase white safeguard zone to north</td></tr>
<tr><td colspan="4">Opportunity Areas</td></tr>
<tr><td colspan="4">Central; central expansion on small strategic sites to infill existing gaps in the dispersed settlement structure.
Potential range:140 – 250 homes</td></tr>
</table>

West Row – infrastructure and service requirements and tipping points

	New Homes		
	Up to 100	100 - 250	250 - 500
[1]Education	100 units: 10 Early Education 25 Primary 18 Secondary 4 Sixth Form	250 units: 25 Early Education 63 Primary 45 Secondary 10 Sixth Form	500 units: 50 Early Education 125 Primary 90 Secondary 20 Sixth Form
Health	N/A	N/A	N/A
Highways and transport	N/A	N/A	N/A
Community facilities, sport/recreation, & leisure	N/A	N/A	N/A
Utilities [2]Anglian Water	See note[2] below		

Additional comments on scale of growth and potential impact on infrastructure/service delivery in West Row

[1]Possible growth of school due to local housing growth. Current site too small so some additional land will be required – school backs onto farm land so opportunity to acquire some of this land.

Note: Provision for early years should be assessed

[2] There is currently capacity at the receiving Mildenhall Water Recycling Centre to accommodate all levels of growth indicated. The foul flows from future growth will have an impact on the existing foul sewerage network. The foul infrastructure requirements will be dependant on the location, size and phasing of the development. All sites will require a local connection to the existing sewerage network which may include network upgrades.

Note: Mildenhall WRC serves West Row, Beck Row and Mildenhall. The capacity comments above for the WRC does not take account of the cumulative effect of growth. For example if growth in all three areas of interest were all on the highest scale indicated and all came forward then there may not be capacity and upgrades may be required for the total.

7. POTENTIAL FUNDING AND DELIVERY OPTIONS

Section 106 Obligations (S106)

7.1 A Section 106 Obligation (S106), often referred to as a S106 agreement, is a legally binding agreement between the local planning authority and developers and/or landowners. These legal agreements set out ways in which development can be made acceptable. They may set out:

- the nature of the development (e.g. the amount of affordable housing that must be provided);
- a required payment from the developer to provide a proportionate amount of additional infrastructure; and
- contributions required to compensate for loss or damage created by development (such as loss of open space).

The NPPF sets out in paragraphs 203 and 204:

> "Planning obligations should only be used where it is not possible to address unacceptable impacts through a planning condition.
>
> Planning obligations should only be sought where they meet all of the following tests:
>
> - necessary to make the development acceptable in planning terms;
> - directly related to the development; and
> - fairly and reasonably related in scale and kind to the development

7.2 All Suffolk planning authorities, including the County Council, have worked together to produce a countywide guide to Section 106 Agreements http://www.suffolk.gov.uk/planning-and-environment/planning-and-development-advice/section-106-planning-obligations/. Ten Topic Papers have been produced to explain where contributions will be expected, and the level of these contributions. This includes the level of contributions expected to provide for education at early years, primary and secondary level. Whilst it is not definitive it gives developers an idea of what obligations to expect. At time of writing (Spring 2015) the Developers Guide and Topic Papers (that provide detail of costs and contributions expected) are being updated with any revised strategies for provision and/or additional requirements, and amended, additional, and/or current costings.

The Community Infrastructure Levy

7.3 The Community Infrastructure Levy (CIL) is a standard charge on developments that will replace many, but not all, of the obligations currently secured under S106 Obligations. Forest Heath is a CIL Charging Authority, and as such we are required to identify the total cost of infrastructure that we intend to fund in whole or in part via our CIL receipts. In order to do this we must consider what additional infrastructure is needed in our area to support the proposals contained

within our development plan, namely our Core Strategy and emerging Site Allocation documents.

7.4 Guidance states that our CIL infrastructure requirements should be directly related to the infrastructure assessment that underpins our relevant plan(s) and that ultimately the CIL examination is not intended to re-open infrastructure planning that has already been provided in support of a 'Sound' and relevant plan, (i.e. our Core Strategy, May 2010). This is not to say that we should not attempt to capture progress made subsequent to the adoption of the relevant plan(s) and/or the infrastructure appraisal(s) that informed them. To this end and in preparation of the implementation of our CIL, as part of this consultation we welcome your comments on:

- any 'alternative' funding sources for the key items of infrastructure identified to allow us to determine the 'funding gap' that CIL is intended to fill. We are required to demonstrate a 'funding gap' before we can even consider implementing a CIL.
- any additional items of infrastructure that were not captured within the context of the original IECA or this draft IDP that you feel are essential to the delivery of our growth aspirations as detailed within our development plan(s) and will be reliant, at least in part, on CIL/S106 receipts for their delivery in addition to the likely required level of such contribution(s).
- Any items of infrastructure, captured in the IECA and/or this draft IDP, that are deemed to be no longer required to support our growth aspirations and the reason(s) for this.

The relationship between S106 and CIL

7.5 From 6 April 2015, even though we haven't adopted CIL, we will only be able to enter into a S106 agreement where, in addition to meeting the tests set out at paragraph 6.1 above, it:

- provides for the funding or provision of an infrastructure project or type of infrastructure subject to a maximum of five separate planning obligations made on or after 6 April 2010 which provide for the funding or provision of that project or type of infrastructure, i.e. pooling of contributions is prohibited; or
- makes provision for affordable housing and/or the payment of contributions for affordable housing, subject to the changes made by the Secretary of State on 28 November 2014. These state that affordable housing and tariff style contributions should not be sought for sites of 10 units or less, and which have a maximum combined gross floor space of 1,000 square metres. This will also apply to all residential annexes and extensions.

Section 278 Agreements (S278)

7.6 A Section 278 Agreement is an agreement made between a developer and the Highway Authority (in this case Suffolk County Council) to enable works to be carried out on the public highway to facilitate development.

This normally happens through the planning application process (although it is usually dealt with separately). A S278 agreement enables the necessary infrastructure to the public highway to make that development acceptable in highway terms. The works are normally funded by the developer, and S278 Agreements are an important way of ensuring that the appropriate highway infrastructure is provided as part of that development.

CIL and Neighbourhood Plans

7.7 The 2011 Localism Act provides the mechanism for local communities to prepare Neighbourhood Plans (see the council's website for more on Neighbourhood Plans http://www.westsuffolk.gov.uk/planning/Planning_Policies/neighbourhoodplanning.cfm). Once it has been approved, and through examination and referendum, a Neighbourhood Plan will form part of the development plan and will sit alongside Local Plans prepared by the Council. As an incentive to prepare a Neighbourhood Plan, communities that take this route and secure the consent of local people in a referendum, will receive 25% of the revenues from the CIL that arise from development that takes place in their area. Town and Parish Councils that do not have a Neighbourhood Plan in place will receive 15% of CIL revenue arising from development in their local areas. This revenue can be used by the community to fund local infrastructure projects such as village/ community halls, sports and play facilities, etc.

Infrastructure Delivery

7.8 The coordinated management and delivery of infrastructure across the District will be essential in order to ensure that new development and residents have the facilities that they require. Viability of new development will be important when considering the requirements of infrastructure. Developers will also be expected to deliver or contribute towards the delivery of infrastructure and only in exceptional circumstances will contributions to this provision be waived by the local planning authority. This will be addressed through the implementation of the Community Infrastructure Levy (CIL).

7.9 It is recognised that there will be a need for major infrastructure investment to enable some larger strategic growth to proceed. However, the phasing of this growth as it emerges via the Core Strategy SIR and Site Allocation processes will acknowledge this need and the potential lead-in time to enable development to take place. The potential for the public purse to contribute to some of these major projects will also have an impact on timing of development.

7.10 Appendix D is a first draft of a table that will be populated with infrastructure requirements, costs, and the lead body responsible for delivery as the SIR and Sites Allocation Documents progress through the plan making stages. It is included at this early stage as an indication of the scope of infrastructure delivery that will be considered as the two plan

documents are refined through consultation and further discussions with infrastructure and service providers.

8. CONCLUSIONS

8.1 Although the SIR Issues and Options document includes distribution options to deliver the planned level of housing growth set out in the Core Strategy to 2031 which, taken with Core Strategy Policy CS1, provides a framework for infrastructure providers and enables them to plan for the level of growth within their own investment programmes, at this stage the actual cost of providing the requisite infrastructure for these different growth scenarios is unknown. In addition, cost uncertainties increase when trying to project delivery plans beyond the short to medium term, and for any plans for large scale growth that will take a number of years to be delivered. Consequently this version of the IDP sets out the types of key infrastructure investment required, and some of the constraints and issues that will need to be addressed in order to accommodate the level of growth set out in the Core Strategy SIR Issues and Options consultation document, and the IDP will be reviewed and updated as part of the ongoing SIR and Site Allocations Plan process.

APPENDIX A

Glossary of terms

Acronym	Term	Definition
	Blue Infrastructure	See Green and Blue Infrastructure below.
	Development Plan	The statutory Development Plan comprises the Development Plan Documents contained in an Authority's Local Plan.
	Green and Blue infrastructure	Green and Blue infrastructure is a network of multi-functional green space, both new and existing, that has an essential role in sustaining air and water resources, and contributes to the health and quality of life of local communities; contributes to high quality and accessible landscapes benefiting people and wildlife; and increases the ability of the natural environment to adapt to climate change. Green Infrastructure includes, amongst other things, parks, open spaces, playing fields, woodlands, allotments and private gardens. Green Infrastructure also encompasses river systems and coastal environments (these are sometimes also refer to as Blue Infrastructure). Blue infrastructure is designed to prevent flooding, manage storm water drainage, and maintain local biodiversity, whilst being part of the landscape.
HRA	Habitats Regulations Assessment	An assessment undertaken to consider and appraise the likely impact of a plan or project upon designated sites of nature conservation importance.
	Infrastructure	Facilities and services that local communities need, such as roads, schools, shops, community and open spaces.
	Issues and Options	Document(s) produced during the early production stage of the preparation of Development Plan Documents and issued for consultation.
KSC	Key Service Centre	A higher order settlement, as defined in Core Strategy Policy CS1. Lakenheath and Red Lodge are the two KSCs in Forest Heath. The services and facilities available in Key Service Centres include some if not all of: a convenience shop, public transport, health care, primary school and access to employment opportunities.
	Local Plan	The name for the portfolio of Local Development Documents. It consists of Development Plan Documents, Supplementary Planning Documents, a Statement of Community Involvement, the Local Development Scheme and Annual Monitoring

		Reports. Together these documents will provide the framework for delivering the spatial planning strategy for the Districts.
LTP	Local Transport Plan	The transport strategy prepared by the local transport authority (Suffolk County Council).
NPPF	National Planning Policy Framework	Has replaced the suite of Planning Policy Guidance Notes and Statements as the national set of planning policies.
	Preferred Options	Document(s) produced as part of the preparation of Development Plan Documents, and issued for formal public participation. It shows the preferred direction, but not the final version, of a Development Plan Document.
	Primary Village	A lower order settlement which provides basic local services, as defined in Core Strategy Policy CS1. Beck Row, Exning, Kentford and West Row are the Primary Villages in Forest Heath.
	S.106 Agreement	Section 106 of the 1990 Planning Act allows for Local Planning Authorities and persons interested in land to legally agree contributions, arrangements and restrictions as part of and in support of a planning application in order to make it accord with local planning requirements.
SALP	Site Allocations Local Plan	This local plan will allocate sites for the development of homes and employment uses for the remaining years of the plan period, i.e. to 2031. The first stage of producing the SALP is the Issues and Options consultation document.
SIR	Single Issue Review	The Forest Heath Core Strategy 2010 was the subject of a High Court Challenge to Policy CS7. The council has carried out the first stage of a Single Issue Review (SIR) of Policy CS7. This is the Overall Housing Provision and Distribution Issues and Options consultation document.
SA	Sustainability Appraisal	Identifies and evaluates the effects of the strategy or plan on social, environmental and economic conditions.
SAC	Special Areas of Conservation	Is a designation under the European Union Directive on the Conservation of Wild Birds. Under the Directive, Member States of the European Union (EU) have a duty to safeguard the habitats of migratory birds and certain particularly threatened birds. Together with Special Protection Areas (SPAs), the SACs form a network of protected sites across the EU, called Natura 2000.
SFRA	Strategic Flood Risk Assessment	The study and assessment is a piece of work that was undertaken jointly between Forest Heath District Council and St Edmundsbury Borough Council. The purpose of the Strategic Flood Risk Assessment (SFRA) Level 1 study and the Outline Water Cycle (WCS) is to identify if there are any

		flooding or water related issues presenting significant obstacles to the ability to provide the preferred levels of development.
SPA	Special Protection Area	Is a designation under the European Union Directive on the Conservation of Wild Birds. Under the Directive, Member States of the European Union (EU) have a duty to safeguard the habitats of migratory birds and certain particularly threatened birds. Together with Special Areas of Conservation (SACs), the SPAs form a network of protected sites across the EU, called Natura 2000.
SSSI	Sites of Special Scientific Interest	Is a conservation designation denoting a protected area in the United Kingdom.
SUDS	Sustainable Drainage Systems	SUDS are drainage solutions that provide an alternative to the direct channelling of surface water through networks of pipes and sewers to nearby watercourses. SUDS are designed to control surface water close to where rain falls and to mimic natural drainage and runoff rates as closely as possible and therefore reduce surface water flooding, improve water quality and enhance the local environment.
	Town(s)	Brandon, Mildenhall, Newmarket are the towns as defined in Core Strategy Policy CS1.
WCS	Water Cycle Study	See: Strategic Flood Risk Assessment.
	West Suffolk	The administrative area covered by Forest Heath District Council and St Edmundsbury Borough Council.

APPENDIX B

2009 IECA Study Engagement

Key stakeholders engaged in the production of the 2009 Joint (St Edmundsbury and Forest Heath) IECA study were:

Abbeycroft Leisure
Anglian Water
Bury St Edmunds Art Gallery
Choose Suffolk
Defence Estates (MOD)
Drainage Board
EDF Energy
East of England Regional Assembly
English Heritage
Environment Agency
Federation of small businesses
FHDC (Housing)
FHDC (Economic Development & Tourism)
GeoSuffolk
Highways Agency
Jockey Club Estates
Mildenhall Air Force
National Health Service
National Trust
Natural England
RSPB
SEBC (Housing)
SEBC (Community Development)
SEBC (Tourist Information)
Suffolk County Council – Education
Suffolk County Council Highways
Suffolk County Council – Minerals & Waste
Suffolk County Council – Research & Intelligence
Suffolk County Council – Libraries, archives & information
Suffolk Preservation Society
Western Suffolk Local Strategic Partnership (LSP)

APPENDIX C

2015 Infrastructure and Service Providers Engagement

The following bodies and organisations were involved in workshops and correspondence to update the IECA for this iteration of the IDP in the Spring of 2015:

Suffolk County Council
Suffolk Constabulary
Suffolk Fire and Rescue Service

Highways England
Abellio Greater Anglia Network Rail
Sustrans

West Suffolk Clinical Commissioning Group
West Suffolk Hospital
NHS Property Services Ltd

Environment Agency
Anglian Water
Ely Group of Internal Drainage Boards

UK Power Networks
National Grid Distribution Team

Natural England
Suffolk Wildlife Trust
Suffolk Biodiversity Partnership
Forestry Commission England
Heritage England

Ministry of Defence

New Anglia Local Enterprise Partnership
Greater Cambridge Greater Peterborough Enterprise Partnership

Kings Lynn & West Norfolk Borough Council
Breckland District Council
East Cambs District Council
Norfolk County Council
Cambridgeshire County Council

APPENDIX D

IDP First Iteration (SIR Issues and Options consultation draft) Summary of Infrastructure Requirements

Infrastructure	Capacity Comments/Future Requirements	Threshold / tipping point	2015 Cost	Delivery lead	Funding Partners
Utilities					
Sewage	The foul flows from future growth will have an impact on the existing foul sewerage network. The foul infrastructure requirements will be dependant on the location, size and phasing of the development. All sites will require a local connection to the existing sewerage network which may include network upgrades. Note: Newmarket WRC serves Newmarket, Exning and Kentford. Mildenhall WRC serves West Row, Beck Row and Mildenhall. AW advise that if high levels of growth are proposed in all these settlements, and all came forward then there may not be capacity for the total and upgrades may be required.	Not known at this stage	Not known at this stage	Developer and Anglian Water Any required upgrades will be funded by Anglian Water but will need to be planned and funded through AW's 5 year business plan. This will be considered in more detail when potential sites have been identified to assess the impact of potential growth.	Developer Anglian Water
Water Quality	No major concerns. All water quality constraints were identified in the 2011 WCS and solutions were provided.	N/A			

Infrastructure	Capacity Comments/Future Requirements	Threshold / tipping point	2015 Cost	Delivery lead	Funding Partners
Flood Risk	EA recommend light touch review of SFRA. EA currently updating surface water management maps. EA are running a series of breach scenarios the results will enable the Council to determine where there is some residual risk to flooding and plan accordingly. The new Anglian River Basin Management Plan (RBMP) is due to be published in December 2015. Minor changes and/or few improvements are anticipated.	N/A			
Energy					
Electricity	The energy network in Suffolk is provided and maintained by EDF Energy. Energy providers work on an entirely reactive basis to upgrading their network and schedule ongoing upgrade works to improve capacity, prioritising these where growth is likely to impact capacity. Therefore, specific future capacity issues have not been identified, but existing capacity can be outlined in broad terms. UK Power Networks have advised that very large developments may raise issues of the competing power	N/A	Not known at this stage		

Infrastructure	Capacity Comments/Future Requirements	Threshold / tipping point	2015 Cost	Delivery lead	Funding Partners
	requirements of employment/ economic development and housing development.				
Public Transport					
Bus	Bus service requires improvement for developments in Brandon and Lakenheath	Not applicable	Not known at this stage	Developer	Developer
Road Network					
A14/A142 Junction, (Newmarket	Sustainable transport initiatives will help to reduce proposed growth and existing traffic levels; physical improvements will also be required	Not known at this stage	Not known at this stage	Highways England	Developer, Suffolk LTP, Highways England
Brandon Area	local safety and management improvement recommended	N/A			
General	opportunities to integrate public transport within any significant new development will need to be explored	N/A		Developer	Developer
Cycling					
General	Sustainable transport initiatives and projects	N/A	Not known at this stage		
Social Infrastructure					

Infrastructure	Capacity Comments/Future Requirements	Threshold / tipping point	2015 Cost	Delivery lead	Funding Partners
Education	large scale growth will require investment in new schools.	See tables in section 6	As set out in SCC Developers Guide	Developer	Developer
Health & Social Care	Future healthcare will need to reflect the needs of a changing society The location of GP surgeries and capacity for extension of services will have an impact on growth proposals. Need to consider the delivery of specialist/supported housing.	See tables in section 6	in SCC Developers Guide	WSCCG	Developer
Emergency Services - Police	Requirements for increased policing capacity will be met as required. This could include extensions to police buildings or relocation of police presence in the community,	See tables in section 6	As set out in SCC Developers Guide	Developer	Developer
Emergency Services - Fire	Suffolk Fire and Rescue Service do not envisage there being a requirement for additional bays at fire stations and new engines during the plan period	Not known at this stage	As set out in SCC Developers Guide	Developer	Developer
Emergency Services - Ambulance	Not known at this stage	N/A	Not known at this stage	Not known at this stage	
Community Facilities					
Community		Not known		Town/Parish Council?	Developer

Infrastructure	Capacity Comments/Future Requirements	Threshold / tipping point	2015 Cost	Delivery lead	Funding Partners
Centres		at this stage			
Libraries		Not known at this stage	As set out in SCC Developers Guide		Developer
Places of worship	Town/Parish Council/Local community to be involved	Not known at this stage	Not known at this stage		Developer
Green infrastructure and open spaces	New development to address open space requirements and current shortfalls in provision as prescribed by the Open Space, Sport and Recreation SPD	N/A	Not known at this stage	Developer	Developer

APPENDIX E

Key background evidence documents used in preparing the first draft of the IDP

Infrastructure and Environment Capacity Appraisal (IECA) 2009 Nathaniel Litchfield and Partners

Transport Study 2009, AECOM

Stage 2 Water Cycle Study, and Stage 2 Strategic Flood Risk Assessment 2011, Hyder Consulting

Surface Water Management Plan for Suffolk, Suffolk County Council, June 2013

Red Lodge Wastewater Treatment/Sewerage Capacity Study 2014, Hyder Consulting

Newmarket Surface Water Management Plan 2015, AECOM

Forest Heath District Council 2014 Air Quality Progress Report

Education and Learning Infrastructure Plan 2014, Suffolk County Council

Suffolk Local Transport Plan 3, (2011-2031) – Transport Strategy and Implementation Plan