

1. **Norfolk Strategic Infrastructure Delivery Plan** (Pages 1 - 72)

## CABINET MEMBERS DELEGATED DECISION

|                                                                                                                                                  |                                     |                                               |                                                                      |                                    |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------|----------------------------------------------------------------------|------------------------------------|--|
| <b>Open</b>                                                                                                                                      |                                     | Would any decisions proposed :                |                                                                      |                                    |  |
| <b>Any especially affected Wards</b>                                                                                                             | Discretionary                       | Be entirely within Cabinet's powers to decide |                                                                      | YES                                |  |
|                                                                                                                                                  |                                     | Need to be recommendations to Council         |                                                                      | NO                                 |  |
|                                                                                                                                                  |                                     | Is it a Key Decision                          |                                                                      | NO                                 |  |
| Lead Member: Cllr Brian Long<br>E-mail: <a href="mailto:cldr.brian.long@west-norfolk.gov.uk">cldr.brian.long@west-norfolk.gov.uk</a>             |                                     | Other Cabinet Members consulted:              |                                                                      |                                    |  |
|                                                                                                                                                  |                                     | Other Members consulted:                      |                                                                      |                                    |  |
| Lead Officer: Alan Gomm<br>E-mail: <a href="mailto:alan.gomm@west-norfolk.gov.uk">alan.gomm@west-norfolk.gov.uk</a><br>Direct Dial: 01553 616237 |                                     | Other Officers consulted: Peter Jermany       |                                                                      |                                    |  |
| Financial Implications<br>NO                                                                                                                     | Policy/Personnel Implications<br>NO | Statutory Implications<br>NO                  | Equal Impact Assessment<br>If YES: Pre-screening/<br>Full Assessment | Risk Management Implications<br>NO |  |
| If not for publication, the paragraph(s) of Schedule 12A of the 1972 Local Government Act considered to justify that is (are) paragraph(s)       |                                     |                                               |                                                                      |                                    |  |
| Date meeting advertised: 14 <sup>th</sup> November 2018                                                                                          |                                     |                                               | Date of meeting decision to be taken: 21 <sup>st</sup> November 2018 |                                    |  |
| Deadline for Call-In: 28 <sup>th</sup> November 2018                                                                                             |                                     |                                               |                                                                      |                                    |  |

## NORFOLK STRATEGIC INFRASTRUCTURE DELIVERY PLAN

### Summary

The Norfolk Strategic Infrastructure Delivery Plan (NSIDP) sets out Norfolk's high level strategic infrastructure needed for the next 10 years, bringing together information on the key projects which deliver growth for Norfolk.

### Recommendation

**To welcome and support the production of the Norfolk Strategic Infrastructure Delivery Plan, together with its annual review and endorse the strategic and inclusive approach to infrastructure planning.**

### Reason for Decision

To support infrastructure delivery across Norfolk.

## 1 Background

1.1 The NSIDP pulls together information on the key strategic infrastructure projects needed to deliver economic growth in Norfolk. It provides a clear message of Norfolk's infrastructure priorities to the government and its agencies.

1.2 It is a working document that will be fully reviewed annually as information becomes available and projects are progressed through to delivery. The NSIDP will help the County Council and its local partners to co-ordinate implementation, prioritise activity and respond to any funding opportunities.

1.3 The list of projects has been compiled in partnership with a range of stakeholders and aligns with the County Council's priority for improved infrastructure, the ambitions of the NALEP Norfolk and Suffolk Economic Strategy and District Councils' Local Plans.

1.4 The NSIDP is focussed on strategic transport, utility and sustainability projects; there are many other infrastructure schemes and projects important across the county and the NSIDP sits alongside Children's Services Local Growth and Investment Plan and the Norfolk Public Health Strategy.

1.5 Projects have been grouped by those in local authority control and those that are being delivered by external organisations. More detailed information is included for local authority controlled projects including a breakdown of each project stage and what work is being carried out to progress the scheme.

1.6 This project progress creates a pipeline of projects and allows for informed discussions and will enable us to co-ordinate implementation, prioritise activity and respond to any funding opportunities.

1.7 The NSIDP is a working document that will be reviewed annually, with the next full review planned in November 2019.

1.8 The NSIDP can be found at: <https://www.norfolk.gov.uk/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/business-policies>

and sets out Norfolk's high level strategic infrastructure priorities for the next 10 years and has an accompanying online map <http://arcg.is/2u75ooY> presenting all the projects in the NSIDP as one vision for Norfolk. This list of projects has been compiled in conjunction with stakeholders including internal county council departments, district councils, utility companies and government agencies. The list of prioritised projects included in the NSIDP has been reviewed and agreed by the appropriate officer groups: Norfolk Strategic Planning Group, Norfolk Growth Delivery Group, Norfolk Strategic Growth Group (consisting of Chief Executives from all the District Councils) and Norfolk Leaders.

1.9 The projects in the NSIDP are focussed on transport, utilities and sustainability and align with the County Council's priority for improved infrastructure, the ambitions of the recently published Norfolk and Suffolk Economic Strategy (NSES) and District Council Local Plans.

1.10 There are many other smaller infrastructure schemes and projects important across the county. Not every project has been included in the NSIDP as the NSIDP only includes the most strategic projects, which contribute the greatest to housing and jobs targets and on which the county

council and other partners are actively working with a recognised route towards delivery.

1.11 Some projects are further forward than others so they have robust investment requirements and implementation timelines; others are in the early stages of design and are less well known. In some cases the funding sources are clear, for example where Section 106 (S106) or Community Infrastructure Levy (CIL) collected from developers will provide a significant contribution. Additional details on costs and sources of funding, such as contributions from utility companies like Anglian Water will be added as projects are firmed up.

1.12 The 2018 NSIDP is focussed on delivery with projects grouped by those in local authority control and those which are being delivered by external organisations. For those projects in local authority control significantly more information has been provided including a detailed breakdown of each project stage and the work underway to progress delivery. In addition the majority of projects have also received funding from the Business Rates Pool in a coordinated approach to ensure projects progress as planned over the coming year and the next stage for delivery has been identified.

1.13 This helps the County Council generate a pipeline of projects based on estimated start dates and if their current status means they will be delivered as planned. This allows for informed discussions and will enable work with partners to co-ordinate implementation, prioritise activity and respond to any funding opportunities.

1.14 The NSIDP is a working document that will be reviewed annually as information becomes available and we progress the projects through to delivery. The first review is planned for the spring of 2019 to factor in any potential government announcements during the Autumn of 2018. This process allows for new projects to come forward for inclusion at the appropriate time subject to meeting the necessary criterion.

1.15 The County Council adopted its Economic Growth Strategy entitled 'Delivering Economic Growth in Norfolk' in April 2012. The first Norfolk Infrastructure Plan (NIP) was produced to fulfil the first objective of providing support for growth and removing infrastructure constraints. The NIP was designed to be a management tool with the aim of ensuring delivery of key interventions over the plan periods of the Local Planning Authorities.

1.13 Since 2012 a refresh of the NIP has been carried out annually, taking account of developments in understanding, new project information and the review of local authority plans meaning longer term projects and priorities could change accordingly.

1.14 The NIP was expanded to the NSIDP with a stronger focus on delivery in 2017.

1.15 Projects of local interest include:

- A10 West Winch Relief Road
- A47 Tilney to East Winch Dualling

- A47 Hardwick Junction
- Ely area rail enhancements
- King's Lynn sewerage improvements
- Increased surface water capacity North Lynn

## **2 Policy Implications**

There are no other significant issues and risks that arise from this decision.

## **3 Financial Implications**

There are no direct financial implications of the NIDP. Individual projects will have their own budgets. Staff support is managed through existing resources.

## **4 Personnel Implications**

None.

## **5 Statutory Considerations**

None.

## **6 Equality Impact Assessment (EIA)**

(Pre screening report template attached)

## **7 Risk Management Implications**

There are no other significant issues and risks that arise from this decision.

## **8 Declarations of Interest / Dispensations Granted**

None.

## **9 Background Papers**

(Definition: Unpublished work relied on to a material extent in preparing the report that disclose facts or matters on which the report or an important part of the report is based. A copy of all background papers must be supplied to Democratic Services with the report for publishing with the agenda)

Norfolk Strategic Infrastructure Delivery Plan (NSIDP) 2018-2028 (attached).

# Pre-Screening Equality Impact Assessment

Borough Council of  
**King's Lynn &  
West Norfolk**



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                        |                                               |          |         |        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------|---------|--------|
| Name of policy/service/function                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Norfolk Strategic Infrastructure Delivery Plan (NSIDP)                                                                                                                                                                                                                 |                                               |          |         |        |
| Is this a new or existing policy/ service/function?                                                                                                                                                                                                                                                                                                                                                                                                                             | Existing                                                                                                                                                                                                                                                               |                                               |          |         |        |
| Brief summary/description of the main aims of the policy/service/function being screened.<br>Please state if this policy/service rigidly constrained by statutory obligations                                                                                                                                                                                                                                                                                                   | The Norfolk Strategic Infrastructure Delivery Plan (NSIDP) sets out Norfolk's high level strategic infrastructure needed for the next 10 years, bringing together information on the key projects which deliver growth for Norfolk.<br><br>Not a statutory obligation. |                                               |          |         |        |
| <b>Question</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Answer</b>                                                                                                                                                                                                                                                          |                                               |          |         |        |
| <p>1. Is there any reason to believe that the policy/service/function could have a specific impact on people from one or more of the following groups <b>according to their different protected characteristic</b>, for example, because they have particular needs, experiences, issues or priorities or in terms of ability to access the service?</p> <p>Please tick the relevant box for each group.</p> <p>NB. Equality neutral means no negative impact on any group.</p> |                                                                                                                                                                                                                                                                        | Positive                                      | Negative | Neutral | Unsure |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Age                                                                                                                                                                                                                                                                    |                                               |          | x       |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Disability                                                                                                                                                                                                                                                             |                                               |          | x       |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Gender                                                                                                                                                                                                                                                                 |                                               |          | x       |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Gender Re-assignment                                                                                                                                                                                                                                                   |                                               |          | x       |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Marriage/civil partnership                                                                                                                                                                                                                                             |                                               |          | x       |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Pregnancy & maternity                                                                                                                                                                                                                                                  |                                               |          | x       |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Race                                                                                                                                                                                                                                                                   |                                               |          | x       |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Religion or belief                                                                                                                                                                                                                                                     |                                               |          | x       |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Sexual orientation                                                                                                                                                                                                                                                     |                                               |          | x       |        |
| Other (eg low income)                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                        |                                               | x        |         |        |
| <b>Question</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Answer</b>                                                                                                                                                                                                                                                          | <b>Comments</b>                               |          |         |        |
| 2. Is the proposed policy/service likely to affect relations between certain equality communities or to damage relations between the equality communities and the Council, for example because it is seen as favouring a particular community or denying opportunities to another?                                                                                                                                                                                              | No                                                                                                                                                                                                                                                                     |                                               |          |         |        |
| 3. Could this policy/service be perceived as impacting on communities differently?                                                                                                                                                                                                                                                                                                                                                                                              | No                                                                                                                                                                                                                                                                     |                                               |          |         |        |
| 4. Is the policy/service specifically designed to tackle evidence of disadvantage or potential discrimination?                                                                                                                                                                                                                                                                                                                                                                  | No                                                                                                                                                                                                                                                                     |                                               |          |         |        |
| <p>5. Are any impacts identified above minor and if so, can these be eliminated or reduced by minor actions?<br/>If yes, please agree actions with a member of the Corporate Equalities Working Group and list agreed actions in the comments section</p>                                                                                                                                                                                                                       | No                                                                                                                                                                                                                                                                     | <b>Actions:</b>                               |          |         |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                        | <b>Actions agreed by EWG member:</b><br>..... |          |         |        |
| <b>Assessment completed by:</b><br>Name Peter Jermany                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                        |                                               |          |         |        |
| <b>Job title Principal Planner (Planning Policy)</b>                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Date 31 October 2018</b>                                                                                                                                                                                                                                            |                                               |          |         |        |

**Please Note: If there are any positive or negative impacts identified in question 1, or there any 'yes' responses to questions 2 – 4 a full impact assessment will be required.**

# **Norfolk Strategic Infrastructure Delivery Plan**

**2018-2028**



 **Norfolk** County Council

  
**Breckland**  
COUNCIL

  
**Broadland**  
District Council

 **GREAT YARMOUTH**  
BOROUGH COUNCIL

Borough Council of  
**King's Lynn &  
West Norfolk**



**NORTH  
NORFOLK**  
DISTRICT  
COUNCIL

 **NORWICH**  
City Council

  
**South Norfolk**  
COUNCIL

**NEWANGLIA**

Local Enterprise Partnership  
for Norfolk and Suffolk

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DRAFT

## Introduction

Norfolk County Council and its partners are determined to unlock Norfolk's full potential. To make this happen we are working together to ensure existing and planned infrastructure links people to jobs, homes and local amenities as well as connecting business with customers. Work is already underway to achieve our social, economic and environmental aspirations for today whilst making Norfolk future fit for the challenges of tomorrow...

This strategic infrastructure delivery plan (SIDP) pulls together information on the key infrastructure needed to deliver economic growth in Norfolk. It is a working document that will be reviewed on a regular basis as information becomes available and projects progress through to delivery. The Plan will help Norfolk County Council and partners to co-ordinate implementation, prioritise activity and respond to any funding opportunities. An online map showing all of the projects and key information can be found: <http://arcg.is/2u75ooY>

All the information in the SIDP is correct as of the date of publication and will be reviewed on a regular basis, the plan has been developed by assessing the work required for each project to progress forward and where appropriate identify funding opportunities to carry out this work.

**The Town and County Planning Association recently published (June 2018) a report: Building for the Future: The Role of County Councils in Meeting Housing Need. This report identified Norfolk County Council as a case study of best practice particularly highlighting the successes of the Norfolk Infrastructure Delivery Plan and Norfolk Strategic Planning Framework in future planning and collaboration.**

The SIDP sets out the Norfolk wide high level strategic infrastructure priorities for the next 10 years. This list has been compiled in collaboration with stakeholders including internal county council departments, district councils, utility companies and government agencies. These projects align with the County Council's priority for improved infrastructure, the ambitions of the recently adopted Norfolk and Suffolk Economic Strategy (NSES), District Council Local Plans, the County Council's administration's "caring for your county" priorities, Children's Services Local Growth and Investment Plan and the Norfolk Strategic Planning Framework agreed by all Norfolk planning authorities.

There are many other infrastructure schemes and projects important across the county. Not every project can be included in the SIDP. The SIDP includes the most strategic projects on which the county council alongside partners are actively working to progress and which have a recognised route towards delivery.

Infrastructure projects in this delivery plan are appropriately in sync with the recently published Industrial Strategy, which identifies growth as being clustered around centres of skills and ideas. All of the projects will deliver the physical infrastructure that is essential to promote these economic growth locations.

The projects included in the SIDP are now categorised into those where Local Authorities lead the project and those where an external organisation is leading and delivering the project. This still allows us to identify all the strategic infrastructure projects in Norfolk but also direct resources, identify funding sources and target lobbying in the most effective way as different projects will have different routes through to delivery.

Some projects are further forward than others so they have robust investment figures and implementation timelines; others are in the early stages of design and are less well known. In some cases the funding sources are clear, where Section 106 (S106) or Community Infrastructure Levy (CIL) collected from developers will provide a significant contribution. Additional details on costs and sources of funding, such as contributions from utility companies like Anglian Water will be added as projects are firmed up.

**Figures 1 and 2** indicate that Norfolk's key growth locations are clustered at points along the main transport arteries. Therefore, these growth corridors and the locations identified in the NSES and District Local Plans provide the spatial context for this plan.

Figure 1 Key housing growth sites

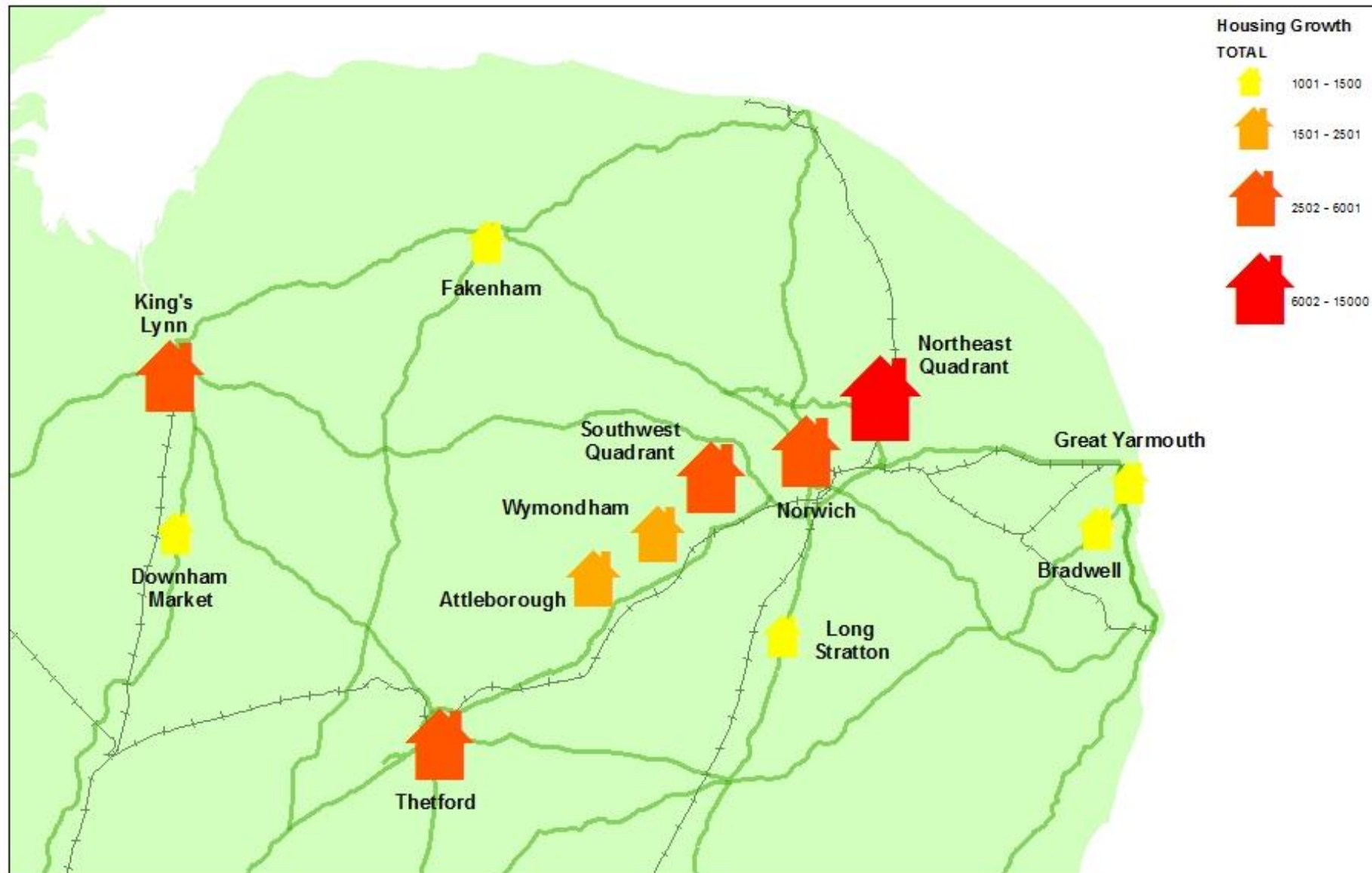


Figure 2 Key employment sites

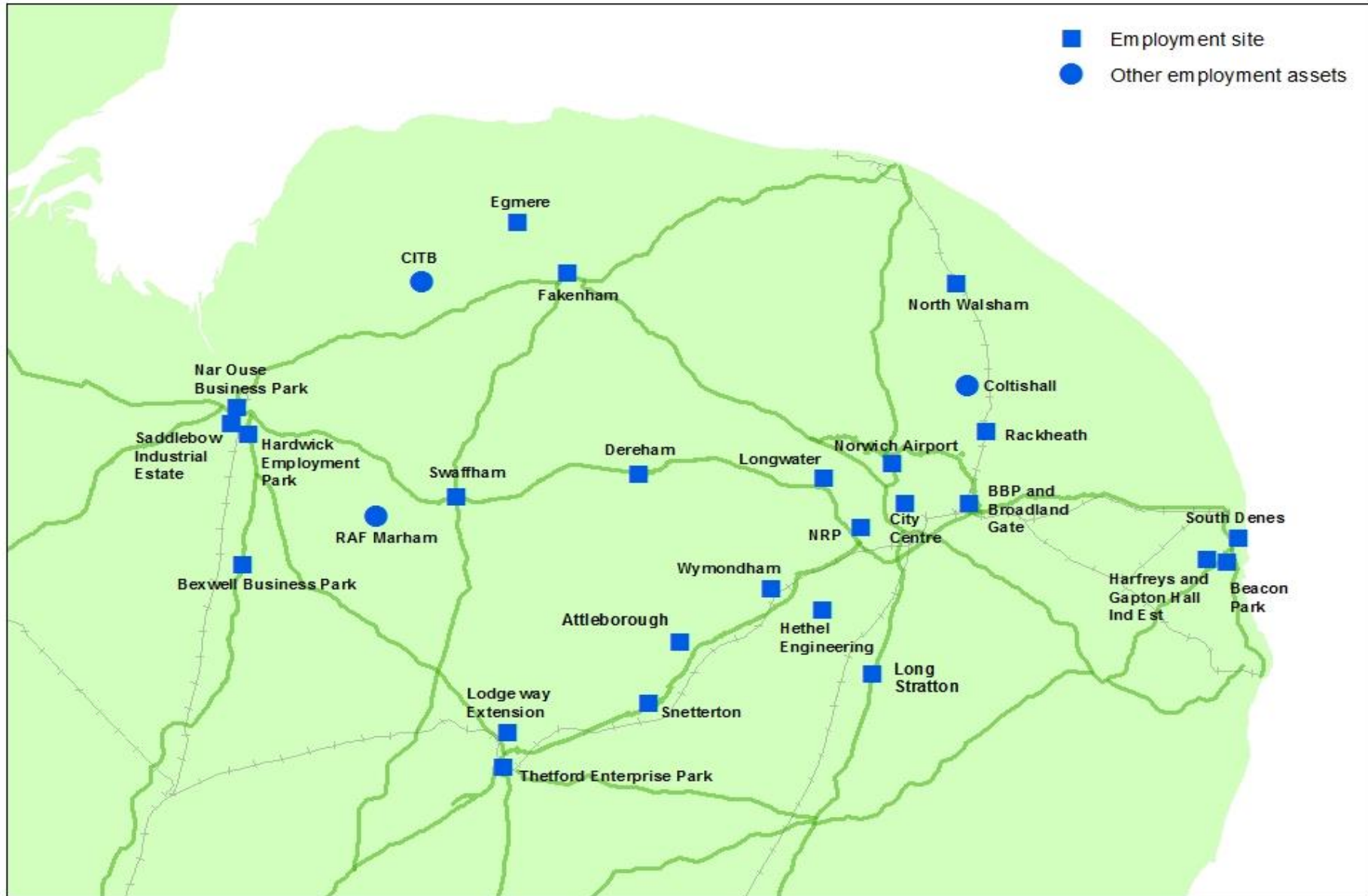
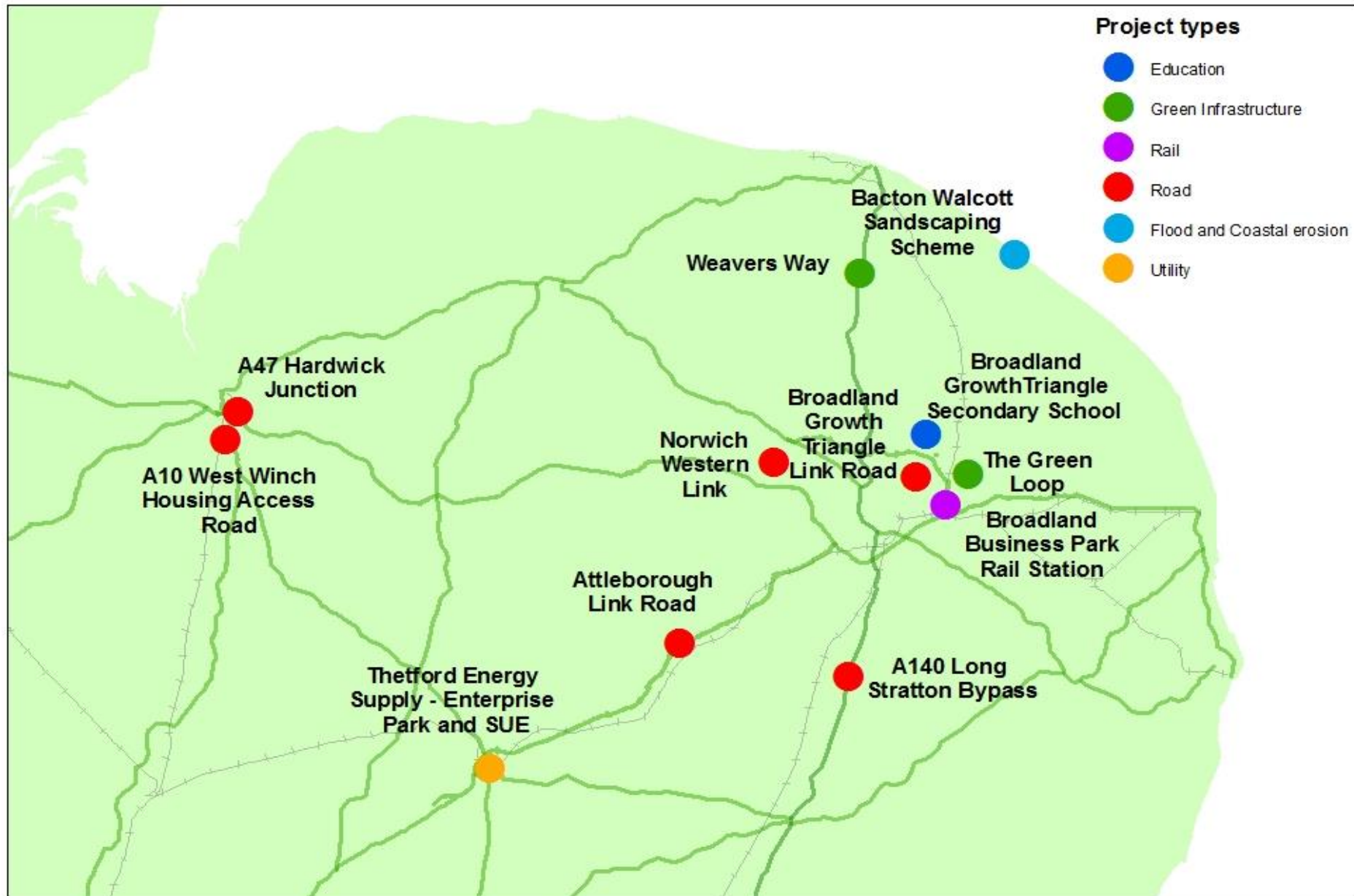




Figure 3 Strategic Infrastructure projects in Local Authority control





The Norfolk Strategic Planning Framework suggests Norfolk authorities will need to collectively plan for an additional 84,000 (approx. 4,000 per annum) homes by 2036. **Figure 1** outlines the key strategic housing sites that will deliver the majority of this growth, with growth focussed around key urban areas that have existing infrastructure and services that have the capacity to support high levels of growth. It also identifies all the places in our area that are expected to grow by at least 1,000 homes over the relevant local plan period. As well as the major urban areas of Norwich, King's Lynn and Great Yarmouth there are groupings of towns along the A11 as well as key individual market towns that can make a significant contribution to growth.

**Figure 2** identifies the major employment sites and opportunities in Norfolk crossing a range of sectors and locations. As with housing it shows the majority of employment sites are aligned with the urban centres and access to the trunk road network. The job growth locations have a diverse mix of high impact sector activity, but the smaller locations have mainly advanced manufacturing and agri-tech, with more life sciences in the southwest which is closer to Cambridge. There are concentrations of employment locations serving high impact sectors in:

- **Greater Norwich** – Life sciences, digital cluster, finance and insurance
- **Great Yarmouth** – Offshore energy
- **Attleborough, Thetford and A11** – Life sciences, agri-tech and advanced engineering
- **King's Lynn and Downham Market** – Advanced engineering
- **Fakenham** – Clean energy

**Figure 3** shows all of the projects in Local Authority control that require further development, it does not show projects that are funded, which are listed on page 12. These projects are in alignment with housing growth, jobs growth and NSES key places, and will create better places to live and work for people in Norfolk. The transport projects support major housing and employment sites; improving connectivity and reducing journey times for people and businesses. Utility projects are concentrated around urban areas and the towns along the A11, ensuring the developments at Thetford, Attleborough and Snetterton are built out as planned, and capacity for water supply and disposal is increased in Norwich and King's Lynn to accommodate growth. Utilities including digital coverage are now as essential for homes and businesses as being able to turn a tap on, and should be seen in the same way with this plan identifying a range of projects that need to be progressed to deliver the planned growth in NSES key locations. For the county to grow sustainably, green infrastructure projects will mitigate the impact of growth to the northeast of Norwich whilst flood defences and coastal erosion projects along the coast will be vital in protecting both existing and future homes and businesses. The projects do not work in isolation, and they deliver more than one outcome. The transport projects are focussed on unlocking housing and job sites. These cannot move forward without essential utilities being in place, while green infrastructure projects create innovative solutions that can alleviate environmental constraints.

## Funding Opportunities

The funding required to pay for the strategic infrastructure projects to support delivery of growth is a key element of the individual Local Infrastructure Plans. Opportunities for funding include:

- Growing Places Fund
- City Deals
- Business Rates Pooling (BRP)
- Growing Business Fund
- Enterprise Zone accelerator fund
- Enterprise Zone business rates retention challenge fund
- Local Investment Fund (LIF)
- Local Major Transport Schemes
- New Anglia Local Enterprise Partnership (NALEP) Growth Deal Fund
- Homes and Communities Agency
- Housing Infrastructure Fund
- Private Investment
- National Productivity Investment Fund (NPIF)
- Developer funding (Section 106 and Community Infrastructure Levy (CIL))

In December 2013, Broadland, Norwich City, Norfolk County and South Norfolk councils signed a City Deal with central government. A core theme supports infrastructure delivery to promote accelerated delivery of planned growth for infrastructure in Greater Norwich.

The infrastructure priorities identified in the IDP will assist the delivery of the NSES and District Council Local Plan growth ambitions. This plan then sets out which elements of infrastructure are required to support the identified growth locations.

### Housing Infrastructure Fund (HIF)

Norfolk has been successful in getting several schemes into the Homes England Housing Infrastructure Funds. The funds allocated in Norfolk are:

| Scheme                                                             | Funding agreed | Works proposed                                                                                    | Homes unlocked |
|--------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------|----------------|
| <b>Marginal viability fund (single and lower tier authorities)</b> |                |                                                                                                   |                |
| Kingsfleet Urban Extension, Thetford                               | £9.95m         | Power and water infrastructure                                                                    | 5,000          |
| Anglia Square, Norwich                                             | £12m           | Decontamination, archaeology, demolition, drainage, roads and parking, water, electricals and gas | 1,230          |
| Cringleford, South Norfolk                                         | £5m            | Infrastructure                                                                                    | 350            |
| <b>Forward funding (upper tier authorities)</b>                    |                |                                                                                                   |                |
| Broadland growth triangle                                          | £57m           | Infrastructure                                                                                    | 7,720          |
| <b>Total</b>                                                       | <b>£83.95m</b> |                                                                                                   | <b>14,300</b>  |

## Funded Projects at August 2018

The following projects have successfully been funded since 2013

### Completed:

- Broadland Northway (Norwich Northern Distributor Road (incl Postwick) - £205m
- Norwich Pedal ways -£14m
- Great Yarmouth Beacon Park Link (A47/143 Link) - £6.8m
- A11 dualling Barton Mills to Thetford- £105m
- Great Yarmouth Right Turn at the rail station - £400,000
- King's Lynn Lynnsport Link Road- £3.5m

### Under construction or part-completed:

- Attleborough Town Centre Improvements- £4.5m
- Great Yarmouth Rail Station to the Market Place improvement- £2m
- Great Yarmouth sustainable transport package (Part 1) - £2.5m
- Norwich (various projects including Dereham Road roundabout- £2m, Cycle link extension to Wymondham- £1.3m, City centre Prince of Wales Road- £2.6m, Dereham Road widening- £3m)

### Planned, not yet started:

- Thetford Enterprise Park Roundabout- £2m
- A11/ORR Daniels Road junction improvement- £2m
- Great Yarmouth congestion-busting projects- £3.3m
- Great Yarmouth sustainable transport package (Part 2) - £3.5m
- Great Yarmouth Third River Crossing- £120m
- A47 improvements £2-300m (incl Thickthorn and Great Yarmouth junction improvements and dualling Blofield to North Burlingham, and Easton to North Tuddenham)
- A140 Hempnall Roundabout - £4m
- Snetterton Energy Supply - £4.1m

## Superfast Broadband

There are two primary infrastructure providers that have deployed fibre infrastructure capable of delivering Superfast broadband (24Mbps+); BT Openreach and Virgin Media, in addition to this there are other providers.

Commercial investment from these two companies provided access to Superfast broadband for 42% of Norfolk properties. The Better Broadband for Norfolk (BBfN) Programme is expected to increase access to Superfast broadband to 95% of Norfolk properties by the end of March 2020. To date, BBfN has seen access to Superfast broadband speeds increase from 42% in 2013, to 91% of Norfolk properties in June 2018. These figures are taken from the independent organisation "[Think Broadband](#)" data.

Provisions within the BBfN contract provide rebates from BT if Take-up of services using BBfN funded infrastructure are higher than expected. Based on this a new procurement has begun. This will allow the county to move towards its aim of achieving 100% coverage.

### UK Digital Strategy

The Government has set-up the National Productivity Investment Fund (NPIF) to provide over £23 billion of investment between 2017-18 and 2021-22. Investing in priority areas including economic infrastructure, housing and research and development. Of this money £740m will be invested in digital by 2020-21. This investment is underpinned by the UK Digital Strategy which supports the next generation of fast and reliable mobile and broadband communications for consumers and businesses. The National Infrastructure Commission recently launched its first 'National Infrastructure Assessment' which recommends nationwide fibre broadband is delivered by 2033 via a national broadband plan to be produced by the end of this year. Key digital areas include:

### Full Fibre

The 2017 Budget announced the first steps, specifically £200m investment into the Full Fibre Network scheme to leverage commercial investment in Full-Fibre, the 'gold standard' of fast and reliable broadband. Complementing the NPIF programmes, the new Digital Infrastructure Investment Fund was launched in spring 2017.

Government investment of £400m will be at least matched by private sector investors, and will accelerate the deployment of Full Fibre networks by providing developers with greater access to commercial finance. £67m of investment has been allocated to the Nationwide Gigabit Broadband Voucher Scheme (GBVS) which will provide vouchers worth up to £3000 for a small or medium sized business or £500 to residents to help with the costs of connecting to full fibre broadband (for speeds of up to 1Gb per second). The voucher scheme is available now in Norfolk and has been promoted to businesses (as the primary target of the scheme) by Norfolk County Council in conjunction with the District councils and the Chamber of Commerce.

Norfolk County Council is in dialogue with the Department of Digital, Culture, Media and Sport to access further funds for full fibre development across the county as well as expressing an interest in the forthcoming 5G rural trials (more of which below).

## **5G**

The Budget also announced up to £16m for leading UK research institutions to cooperate on a cutting edge 5G facility to trial and demonstrate 5G technology. The first step to a new National 5G Innovation Network, this will involve government working as closely as possible with industry, investors, regulators, and researchers to refine the Government's policy as 5G technology emerges and evolves.

Government has also announced plans for urban and rural 5G trials. 5G deployment in rural areas will initially require full fibre backhaul from existing 4G cell towers and so Norfolk County Council has been working with the four mobile network operators to increase the number of 4G transmitters and improve the bandwidth for backhaul through the Full Fibre funding programme.

### **Support consumers in getting the best deal in digital connectivity**

Ensuring adverts for broadband accurately reflect the speeds and technology actually on offer for the majority of customers, so that people know what they are getting and can better find the most competitive deal. Internet service Providers are now required to declare the speed a customer can expect to receive.

## Education

The Schools' Local Growth and Investment Plan (SLGIP) for pupil place provision 4-16 sets out the strategic direction of pupil place supply for those areas of the County where pupil numbers are expected to increase in the next 5-10 years. The Plan is a response to the District Local Plan frameworks and is presented as the basis for discussion, planning and decision-making for the County Council and its partners across the increasingly diverse educational landscape. The Plan links to the County Council's schools' forward capital programme which was reported and approved at Committee in May 2018.

### Major growth areas which will require multi-school solutions:

- Thetford Sustainable Urban Extension (SUE) of 5,000 new dwellings;
- Broadland Growth Triangle (Sprowston/Old Catton/Rackheath) of 12,000+ new dwellings; and
- Attleborough Sustainable Urban Extension (SUE) of 4,000 new dwellings.

### Thetford

Existing primary phase provision in Thetford remains a mix of infant/junior and all through primary. There are currently 12 forms of entry (360 places) at reception with just a few spare places in the September 2017 admissions round. Pupil forecasts indicate some stability in pupil numbers over the next few years until new housing begins to yield pupils. There is a range of academy providers. Pursuing the County Council's policy of moving to all-through primary schools would be achievable in Thetford the County Council are considering options when related to growth infrastructure. At secondary phase a single high school serves the Town with capacity to accept additional forms of entry until the SUE is well under way. The high school is capable of expansion on its existing site when additional places are required.

Sites for three new 420 place primary schools have been secured. It is expected that a Reserved Matters application for the first sub-phase of 300+ homes which includes the site for the first primary school will be submitted shortly. Children's Services have been working with the land promoters and agreed the new school position on the site and the infrastructure requirements. The Children's Services capital budget will need to underwrite the cost of this first school until developer contributions come through.

### Broadland Growth Triangle

This housing growth area extends from Old Catton in the west to Rackheath in the east. Existing provision is extensive and affects three secondary schools: Sprowston Community High School, Thorpe St Andrew School, Broadland High School and their feeder primary phase schools. Existing primary phase provision remains a mix of infant/junior in Old Catton and Sprowston and all through primary in Rackheath and Thorpe.



To the immediate south-east, the new primary school at White House Farm is progressing with the land transfer underway and a planning application for the new school building submitted in 2017. The target date for opening of this new school is September 2019 but is dependent on the construction timescale.

The two new primary phase schools within the new Beeston Park development have been allocated to Reach2 Academy Trust as part of the DfE Free School programme as well as White House Farm, which is going ahead and will be built in discussion with Reach2. Confirmation will be sought from the Regional Schools Commissioner that the DfE Free School programme will continue to support the two Beeston Park schools. Further new primary phase schools in addition to those mentioned above will be proposed as planning applications come forward for consultation.

Norfolk County Council has made a commitment for a new Secondary phase school in the Sprowston area and a preferred site has been identified on the current Park and Ride site. Planning towards feasibility of this new school is under way. Consideration may also be given to the possibility of an all-through 4-16 school model. See page 42 for more details on this project.

### Attleborough

The town of Attleborough is served by two all-through primary schools, namely Attleborough Primary School and the new Rosecroft Primary School and one secondary school – Attleborough Academy. The two primary schools offer five forms of entry between them. The town is surrounded by villages with local schools. Some children in Attleborough catchment do choose a nearby village school as opposed to their local primary school in the Town - e.g. in September 2017, around 25% of Attleborough catchment children expressed a preference for a reception class outside catchment. This figure has increased since last year and is likely due to the apprehension of re-organisation. Future preferences will be monitored to see if this pattern continues once re-organisation settles.

Attleborough Infant School moved off the Attleborough Academy site into the new Rosecroft Primary School building allowing the Academy more space for future expansion. A masterplan has been drawn up for future growth at this school once pressure for places is evident.

Discussions with Land promoters have continued throughout 2017 and an outline planning application was submitted to Breckland District Council in the summer of 2017. Discussions are still ongoing with the land promoters regarding the requirements for education provision in response to the proposed 4,000 new homes and land for two new primary phase schools have been secured once outline permission is approved.

In addition to these major growth areas which require multi-school solutions the SLGIP also sets out development locations where one new school is expected and growth areas with implications for existing schools. The full report can be found: [http://norfolkcc.cmis.uk.com/norfolkcc/Decisions/tabid/67/ctl/ViewCMIS\\_DecisionDetails/mid/391/Id/28b66d42-e0b7-48e5-983f-2d0f5214ba22/Default.aspx](http://norfolkcc.cmis.uk.com/norfolkcc/Decisions/tabid/67/ctl/ViewCMIS_DecisionDetails/mid/391/Id/28b66d42-e0b7-48e5-983f-2d0f5214ba22/Default.aspx)

# **Infrastructure projects in Local Authority Control**



## Infrastructure Projects in Local Authority control

The County Council in collaboration with partners is seeking to progress a number of key infrastructure initiatives for the next 10 years as listed below.

All of the projects in this list are judged on four criteria:

- Delivering significant housing and jobs growth
- Identified in existing plans/programmes
- Have a committed route to delivery
- Project is in Local Authority control

### Tick system key:

No ticks = Issue identified but no work carried out to identify project/solution

✓ = Feasibility work on scheme has begun to identify options

✓✓ = Feasibility/development work underway on preferred option

✓✓✓ = Project is shovel ready

### Road Projects

| Project Name                        | Estimated Start Date | Estimated Cost   | Scheme Development | Potential Funding Source                                                 |
|-------------------------------------|----------------------|------------------|--------------------|--------------------------------------------------------------------------|
| Broadland Growth Triangle Link Road | 2017                 | £38m             | ✓✓✓                | Developer funding, CIL, BRP, HIF                                         |
| A10 West Winch Housing Access Road  | 2020                 | £22.8m           | ✓✓                 | Developer funding, Growth Deal                                           |
| Attleborough Link Road              | 2020                 | £18m             | ✓✓                 | Developer funding, Growth Deal                                           |
| A140 Long Stratton Bypass           | 2020                 | £31m             | ✓✓                 | Developer funding, Growth Deal, CIL, NPIF, Government Major Road Network |
| Norwich Western Link                | 2023                 | Indicative £160m | ✓                  | Growth Deal, Local major transport scheme                                |
| A47 Hardwick Junction               | 2025                 | £17m             | ✓                  | Developer funding, Growth Deal                                           |

## Rail Projects

| Project Name                         | Estimated Start Date | Estimated Cost | Scheme Development | Potential Funding Source   |
|--------------------------------------|----------------------|----------------|--------------------|----------------------------|
| Broadland Business Park Rail Station | Mid 2020s            | £6.5m          | ✓                  | Growth Deal, Rail Industry |

## Utilities Projects

| Project Name                           | Estimated Start Date | Estimated Cost | Scheme Development | Potential Funding Source |
|----------------------------------------|----------------------|----------------|--------------------|--------------------------|
| Thetford SUE Energy Supply             | 2019                 | £6.5m-£13.6m   | ✓✓                 | HCA HIF                  |
| Thetford Enterprise Park Energy Supply | 2019                 | £4.1m          | ✓                  | BRP, LEP, Private Sector |

## Sustainable Projects

| Project Name               | Estimated Start Date | Estimated Cost | Scheme Development | Potential Funding Source                                                                             |
|----------------------------|----------------------|----------------|--------------------|------------------------------------------------------------------------------------------------------|
| Weavers Way                | 2018/19              | £1.1m          | ✓✓                 | RDPE, HLF, LEP                                                                                       |
| The Green Loop             | 2019/20              | £4.7m          | ✓✓✓                | DfT, LEP, Sustrans, Lottery, Developer contributions, CIL                                            |
| Bacton Walcott Sandscaping | 2018                 | £19.3m         | ✓✓                 | Public sector, Regional Flood and Coastal Committee, Environment Agency, DEFRA, NALP, private sector |

## Education Projects

| Project Name                               | Estimated Start Date                        | Estimated Cost | Scheme Development | Potential Funding Source |
|--------------------------------------------|---------------------------------------------|----------------|--------------------|--------------------------|
| Broadland Growth Triangle Secondary School | 2025/26 – dependent on development progress | £26m           | ✓                  | NCC, BRP, CIL            |

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# Roads

## Broadland Growth Triangle Link Road

The project will provide a road linking the strategic employment areas of Broadland Business Park and Norwich Airport through the development sites within the northern suburbs of Norwich. It will significantly increase the accessibility of employment sites in the Broadland Growth Triangle area and support the development of approximately 55 hectares of employment land in this vicinity. A section of the link between Wroxham Road and Salhouse Road has already been delivered through development and is expected to be open to traffic in the near future. The remaining sections are outlined below.

| Broadland Growth Triangle Norwich Link Road          |                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                         |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description of stage                                 | Airport Industrial Estate to St Faiths Road                                                                                                                                                                                                                                                                                                                                                                     | St Faiths Road to North Walsham Road and North Walsham Road to Wroxham Road                                                                                                                                                                                                                                                                                                                | Salhouse Road to Plumstead Road                                                                                                                                                                                                                                                                                      | Plumstead Road to Broadland Business Park                                                                                                                                                                                               |
| Estimated cost to deliver the stage                  | Additional feasibility and scheme development costing approx. £200k                                                                                                                                                                                                                                                                                                                                             | Additional feasibility and scheme development costing approx. £500k                                                                                                                                                                                                                                                                                                                        | Possible need for additional feasibility and scheme development costing approx. £300k                                                                                                                                                                                                                                | n/a                                                                                                                                                                                                                                     |
| Indicative timeframe to deliver stage and start date | <p>Feasibility underway to establish optimal location, nature and timing of vehicular link to Airport - completion by March 2019. Scheme development and planning applications to follow as appropriate.</p> <p>Ongoing negotiations with developer to establish appropriate design of link road connection to St Faiths Road. Consent for Link Road by December 2018. Construction complete by March 2020.</p> | <p>A detailed application has been submitted part of the link between St Faiths Road and Norwich RFU. NCC and BDC are working with the developer to achieve a planning approval. Approval anticipated by March 2019 and delivery by March 2020.</p> <p>NCC, BDC and developer are working through the co-development of the HIF bid to develop scheme for remainder of link. If HIF is</p> | <p>Outline planning permission for development scheme across majority of link expected by end of 2018.</p> <p>Detailed consent for junction with Plumstead Road and northern link road spur currently under-consideration.</p> <p>Construction of link road currently expected to be begun late 2019/early 2020.</p> | <p>Developer current intention is to begin constructing 1<sup>st</sup> phase of the Brook Farm Link Road by the end of 2019.</p> <p>BDC and NCC are in ongoing negotiations with developer about 2<sup>nd</sup> phase of link road.</p> |

|                                 |                        |                                                |                             |                   |
|---------------------------------|------------------------|------------------------------------------------|-----------------------------|-------------------|
|                                 |                        | successful delivery is expected by March 2021. |                             |                   |
| <b>Potential funding source</b> | CIL, developer finance | CIL, BRP, HIF, developer finance               | CIL, HIF, developer finance | Developer finance |
| <b>Tick system</b>              | ✓✓✓                    | ✓✓✓                                            | ✓✓✓                         | ✓✓✓               |

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## A10 West Winch Housing Access Road

To facilitate planned housing growth in West Winch a new road is required between the A47 and A10 to enable distribution of trips from the new development and to alleviate congestion on the A10 through West Winch and at the Hardwick junction. In order to protect the existing A10 from increased traffic, a new route through or around the new development in this quadrant is proposed in the Borough Council's Core Strategy and Local Plan.

As outlined above the A10 West Winch Housing Access Road is intrinsically linked to some improvements at the Hardwick junction and the need to dual a short length of the A47. These other measures will form part of the overall West Winch Housing Access Road scheme. Work carried out by Mott MacDonald in 2014 indicated some £22.8m for the total package of these measures.

| A10 West Winch Housing Access Road                          |                                                    |                                              |                                                                        |
|-------------------------------------------------------------|----------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------|
| <b>Description of stage</b>                                 | Stage 1: Scheme development                        | Stage 2: Preparation of planning application | Detailed design and procurement                                        |
| <b>Estimated cost to deliver the stage</b>                  | £280k                                              | Est. £525k                                   | Est. £1.5m                                                             |
| <b>Indicative timeframe to deliver stage and start date</b> | Jan- Dec 2018                                      | Jan-Dec 2019                                 | 2020                                                                   |
| <b>Potential funding source</b>                             | Being funded by BRP, NCC and KLWNBC                | Being funded by BRP, NCC and KLWNBC          | Potentially BRP, local authority funding match, developer contribution |
| <b>Tick system</b>                                          | Completion of this stage will take it from ✓ to ✓✓ | Initial stage to take from ✓✓ to ✓✓✓         | Completion of this stage will take it to ✓✓✓                           |

## Attleborough Link Road

A key transport priority for Attleborough, required for planned strategic growth, is a link road between the B1077 near Bunns Bank to London Road to the south of the town. The link road will distribute new and existing traffic away from the town centre and enable traffic management measures to be implemented within the town centre such as HGV restrictions. Delivery of the link road will be a planning requirement of the scheme and will be phased so that up to 1,200 homes can be built before the link road is required to be opened in full. A Planning Application for the Urban Extension including the link road was submitted in 2017 and is expected to be determined by the end of 2018. Discussions are ongoing with development interests and key partners in order to bring forward the full completion of the road before the requirements of the planning obligations are triggered.

| Attleborough Link Road                                      |                                                                                                                                                                                                                     |                                                                                                                              |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Description of stage</b>                                 | Development phase: Preliminary Design; Statutory procedures and powers; Construction preparation<br>NB: This work could be broken down into the three above phases                                                  | Construction phase                                                                                                           |
| <b>Estimated cost to deliver the stage</b>                  | Circa £1.4m                                                                                                                                                                                                         | £14m                                                                                                                         |
| <b>Indicative timeframe to deliver stage and start date</b> | Two years                                                                                                                                                                                                           |                                                                                                                              |
| <b>Potential funding source</b>                             | BRP, local authority, developer                                                                                                                                                                                     | BRP, developer, Growth Deal, Homes England loan, HIF                                                                         |
| <b>Qualifications for BRP and or Growth Deal funding</b>    | Required for 4,000 new houses and 1,500 new jobs. Strategic scheme identified in the IDP. Funding would be for detailed technical work designed to progress strategic schemes towards readiness for implementation. | Required for 4,000 new houses and 1,500 new jobs. Strategic scheme identified in the IDP. Funding would be for construction. |
| <b>Tick system</b>                                          | Completion of this stage will take from ✓✓ to ✓✓✓                                                                                                                                                                   |                                                                                                                              |



## A140 Long Stratton Bypass

Long Stratton is located approximately 10 miles south of Norwich on the A140 Norwich to Ipswich road. There is planned growth in Long Stratton of at least 1,800 homes in the period 2008-2026 to deliver a bypass but this growth is also highly dependent on the provision of water supply, sewerage and improved electricity supply. The need for a bypass has long been a priority and is considered to be a prerequisite to provide for the needs of the proposed growth. South Norfolk District Council has adopted an Area Action Plan (AAP) for Long Stratton and a planning application was submitted by the developer in 2018. This is expected to be determined in early 2019.

| A140 Long Stratton Bypass                                   |                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                          |                                                                                                                                                                               |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description of stage</b>                                 | An economic viability study for the Long Stratton bypass. This will be carried out by an expert consultant to provide a professional opinion on the: estimated cost of the bypass; estimated funding gap; direct and indirect economic benefits of the bypass; and added benefits of early delivery of the bypass | Development phase:<br>Preliminary Design; Statutory procedures and powers;<br>Construction preparation NB:<br>This work could be broken down into the three above phases | Construction phase                                                                                                                                                            |
| <b>Estimated cost to deliver the stage</b>                  | £200,000 (funded)                                                                                                                                                                                                                                                                                                 | Circa £4m                                                                                                                                                                | £31m - A bid has been submitted to DfT for major Road Network funding in 2018. If successful, this would allow construction to start in late 2020 with completion in mid-2022 |
| <b>Indicative timeframe to deliver stage and start date</b> | Dec 2017 to July 2018                                                                                                                                                                                                                                                                                             | Two years                                                                                                                                                                | 2020 start on bypass<br>2018 Hempnall Crossroads                                                                                                                              |

|                                                          |                                                                                               |                                                                                                                                                                                                                                          |                                                                                                                                                   |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Potential funding source</b>                          | Funded from:<br>Pooled Business Rates: £100,000 SNC:<br>£15,000<br>HCA:£35,000<br>NCC:£50,000 | BRP, local authority, developer                                                                                                                                                                                                          | BRP, Developer, Growth Deal, HIF, Government Major Road Network                                                                                   |
| <b>Qualifications for BRP and or Growth Deal funding</b> |                                                                                               | Required for 1,800 new houses and to overcome traffic problems on A140. Strategic scheme identified in the IDP. Funding would be for detailed technical work designed to progress strategic schemes towards readiness for implementation | Required for 1,800 new houses and to overcome traffic problems on A140. Strategic scheme identified in the IDP. Funding would be for construction |
| <b>Tick system</b>                                       | Will take scheme from ✓ to ✓✓                                                                 | Completion of this stage will take it from ✓✓ to ✓✓✓                                                                                                                                                                                     |                                                                                                                                                   |

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## Norwich Western Link

This link – to connect the Broadland Northway at Taverham to the A47 west of Norwich – has been identified as one of the county council’s priority road infrastructure schemes. Scheme development work has commenced, looking at the business case for such a link and to consider possible routes. The County Council has recently consulted on this project and there is a significant amount of public support for the project.

| Norwich Western Link                                        |                                                                                                                                                                |                                                                                                                                                                                                                                         |                                                              |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <b>Description of stage</b>                                 | Option development and initial appraisal<br>Development of business case: progress Design; Environmental assessment; Traffic modelling; and economic appraisal | Development phase: Preliminary Design; Completion and submission of Outline Business Case; Statutory procedures and powers; Procurement and Detailed Design for Construction preparation                                                | Construction phase                                           |
| <b>Estimated cost to deliver the stage</b>                  | £1m                                                                                                                                                            | £10m                                                                                                                                                                                                                                    | Indicative £160m                                             |
| <b>Indicative timeframe to deliver stage and start date</b> | Feb 18- Dec 18                                                                                                                                                 | Three years (2019-2022)<br>-(2019/2020) Prelim Design and OBC development submission - £3m<br>-(2020 – 2022) Statutory process (development and delivery) - £4m<br>-(2021-2022) Procurement and detailed design/construction prep - £3m | Two years (2022 to 2024)                                     |
| <b>Potential funding source</b>                             | Funded from BRP (£500k) and NCC (£500k)                                                                                                                        | BRP, Growth Deal, local major transport scheme, local authorities                                                                                                                                                                       | Growth Deal, local major transport scheme, local authorities |

|                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Qualifications for BRP and or Growth Deal funding</b></p> | <p>Strategic scheme identified in the IDP.</p> <ul style="list-style-type: none"> <li>• Support sustainable housing growth in the western quadrant</li> <li>• Improve the quality of life for local communities</li> <li>• Support economic growth</li> <li>• Protect and enhance the natural environment</li> <li>• Improve strategic connectivity with the national road network</li> </ul> <p>Funding for detailed technical work designed to progress strategic schemes towards readiness for implementation</p> |                                        | <p>Strategic scheme identified in the IDP.</p> <ul style="list-style-type: none"> <li>• Support sustainable housing growth in the western quadrant</li> <li>• Improve the quality of life for local communities</li> <li>• Support economic growth</li> <li>• Protect and enhance the natural environment</li> <li>• Improve strategic connectivity with the national road network</li> </ul> <p>Funding would be for construction</p> |
| <p><b>Tick system</b></p>                                       | <p>Will take scheme from ✓ to ✓✓</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <p>Will take scheme from ✓✓ to ✓✓✓</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                        |



## A47 Hardwick Junction

The Hardwick Junction is the major gateway into King’s Lynn from the south and east. It is an important route into the town providing access to King’s Lynn’s main retail and employment areas. It is also an important hub for tourists travelling to the north Norfolk coast. Previous improvements to the junction included the addition of a flyover allowing through traffic on the A47 to bypass the junction altogether. The growth set out in the King’s Lynn and West Norfolk Core Strategy will place an additional burden on the highway network and further measures at the Hardwick junction will be required to ensure it operates without undue congestion and delay. Some improvements at the Hardwick junction, including the need to dual a short length of the A47, will form part of the overall West Winch Housing Access Road scheme. These will support the local economy and facilitate economic development. Planned growth in the immediate vicinity of the junction amounts to a total of 1,600 new homes to 2026 in the South East of King’s Lynn and some 27 ha of employment land at the Hardwick Estate Extension. This scale of growth will require improvements to the junction to increase capacity and allow for a new public transport corridor into town. In the next plan period, further improvements will be required to mitigate the impact of addition planned housing growth beyond 2026.

| A47 Hardwick Junction                                       |                                                                                                                                                                                                 |                                                                                                          |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Description of stage</b>                                 | Development Phase: Preliminary Design; Statutory procedures and powers; Construction preparation                                                                                                | Construction phase                                                                                       |
| <b>Estimated cost to deliver the stage</b>                  | £1.7m                                                                                                                                                                                           | £17m                                                                                                     |
| <b>Indicative timeframe to deliver stage and start date</b> | 1-2 years but not until 2026                                                                                                                                                                    | 1-2 years                                                                                                |
| <b>Potential funding source</b>                             | BRP                                                                                                                                                                                             | BRP, developer, Growth Deal, HIF                                                                         |
| <b>Qualifications for BRP and or Growth Deal funding</b>    | Required for 3,500 new houses. Strategic scheme identified in the IDP. Funding would be for detailed technical work designed to progress strategic schemes towards readiness for implementation | Required for 3,500 new houses. Strategic scheme identified in the IDP. Funding would be for construction |
| <b>Tick system</b>                                          | Will take scheme from ✓✓ to ✓✓✓                                                                                                                                                                 |                                                                                                          |

**Rail**

## Broadland Business Park Rail Station

Currently services operate every hour between Norwich and Sheringham. New rolling stock will be delivered across the whole of the franchise between 2018 and 2020. Further capacity improvements are required to accommodate passenger demand and the County Council has been pressing for services every half hour (rather than hourly). Broadland Business Park is a strategic employment site located adjacent to the rail line just east of Norwich. Work to establish the benefits of adding a new station at this location has been ongoing

| Broadland Business Park Rail Station                        |                                                   |                                                                                                                                                                  |                                                                                                                                                                  |                                                                           |
|-------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| <b>Description of stage</b>                                 | Feasibility GRIP 2 and option selection GRIP 3    | Further work to develop single option                                                                                                                            | Development phase: Preliminary Design; Statutory procedures and powers; construction preparation                                                                 | Construction phase                                                        |
| <b>Estimated cost to deliver the stage</b>                  | £140k                                             | Not known. Likely to be Circa £250,000                                                                                                                           | Circa £2m                                                                                                                                                        | Circa £20m                                                                |
| <b>Indicative timeframe to deliver stage and start date</b> | Dec 17                                            | 2018<br>1 year                                                                                                                                                   | 2019-2022<br>3-5 years                                                                                                                                           | Circa 2027<br>1 year                                                      |
| <b>Potential funding source</b>                             | Funded through BRP and Broadland District Council | BRP, local authorities                                                                                                                                           | BRP, Growth Deal, local authorities                                                                                                                              |                                                                           |
| <b>Qualifications for BRP and or Growth Deal funding</b>    | Strategic scheme identified in the IDP.           | Strategic scheme identified in the IDP. Funding would be for detailed technical work designed to progress strategic schemes towards readiness for implementation | Strategic scheme identified in the IDP. Funding would be for detailed technical work designed to progress strategic schemes towards readiness for implementation | Strategic scheme identified in the IDP. Funding would be for construction |
| <b>Tick system</b>                                          | ✓                                                 | To take scheme from ✓ to ✓✓                                                                                                                                      | To take scheme from ✓✓ to ✓✓✓                                                                                                                                    |                                                                           |

# Utilities



## Thetford Energy Supply

A major 5,000 unit housing development (Thetford SUE) which commenced on site in spring 2018 with the first 343 units now in contract. This first phase will substantially use the current spare electricity capacity power in the north of Thetford. A phased approach to increasing electricity capacity is proposed with the first phase being the building of a new Primary Substation to be located on the Thetford SUE and serving the housing development, a large employment area on the SUE and an adjacent large employment area known as the Thetford Enterprise Park. The two employment sites have a joint capacity for circa. 140,000sq m of B1, B2 and B8 development and potential to create 3,600 jobs.

|                                                             | Thetford SUE                                                                               | Thetford Enterprise Park                                                                       |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>Description of stage</b>                                 | Construction of a new 33kV primary electricity sub-station on the SUE in northern Thetford | Distribution of power from the new substation to the Thetford Enterprise Park employment site. |
| <b>Estimated cost to deliver the stage</b>                  | £6.5m                                                                                      | £1m                                                                                            |
| <b>Indicative timeframe to deliver stage and start date</b> | 2 years<br>Start date: 2019                                                                | Could be done in parallel with sub- station construction if funding is available.              |
| <b>Potential funding source</b>                             | HCA HIF (secured)                                                                          | BRP, LEP, Private Sector                                                                       |
| <b>Qualifications for BRP and or Growth Deal funding</b>    | To accelerate housing delivery and provide a source of power for the TEP                   | Required to unlock the TEP employment site                                                     |
| <b>Tick system</b>                                          | ✓✓                                                                                         | ✓                                                                                              |

**Sustainable**

## Weavers Way

This project will create new walking and cycling infrastructure in rural Norfolk. Weaver's Way begins in Cromer, following a public rights of way network to the market town of Aylsham. Here it picks up the route of a disused railway line, following its course through the Norfolk countryside to the edge of the Broads National Park at Stalham. From here it meanders through these famous wetlands and waterways before re-joining the coast at Great Yarmouth. This project will focus principally on revitalising the disused railway line between Aylsham and Stalham. Route improvements will include new surfacing to ensure year round accessibility for walkers (including access impaired users) and cyclists, increased safety and accessibility at road crossings through installation of new gates and improved signage and connectivity to amenities and other routes throughout.

| Weavers Way                                                 |                                                                                                                                                                                                                                                                                        |                                            |                                                                                                         |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Description of stage</b>                                 | Feasibility – Being delivered as one of the three 'Recycling the Railways' focused studies.                                                                                                                                                                                            | Stage 1 delivery – surface and signage     | Stage 2 delivery – associated industrial heritage buildings brought back into use as visitor facilities |
| <b>Estimated cost to deliver the stage</b>                  | £45,000                                                                                                                                                                                                                                                                                | £1,062,343                                 | c. £2,000,000                                                                                           |
| <b>Indicative timeframe to deliver stage and start date</b> | January 2019                                                                                                                                                                                                                                                                           | March 2018-19                              | March 2023                                                                                              |
| <b>Potential funding source</b>                             | Norfolk County Council capital - secured                                                                                                                                                                                                                                               | RDPE – bid has gone in – awaiting decision | HLF, LEP                                                                                                |
| <b>Qualifications for BRP and or Growth Deal funding</b>    | Supports housing and jobs growth in both Broadland and North Norfolk District Councils through provision of housing related GI and mitigating the effects of housing growth on vulnerable environmental sites. Also increases the visitor offer supporting tourism related job growth. |                                            |                                                                                                         |
| <b>Tick system</b>                                          | ✓✓✓                                                                                                                                                                                                                                                                                    | ✓✓✓                                        | ✓✓                                                                                                      |

## The Green Loop

A 46 mile circular route for walking / cycling and disabled use. Encompassing the Marriott's Way, Bure Valley Path and Broadland Way. Broadland Way is partially built through the Broadland Northway and connects with the Broadland Growth Triangle. Marriott's Way and Bure Valley Path exist and are used currently for walking and cycling but require upgrading in some areas to make them more accessible for disabled users particularly. Both routes are biodiversity corridors. Broadland Way has been part built by the Broadland Northway and will link to the east end of the Green Pedal way. The Green Loop will also connect to the DfT, Norfolk County Council and Broad's Authority funded Three Rivers Way Cycle route and to Weaver's Way.

| The Green Loop                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                          |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Description of stage</b>                                 | Feasibility                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Phased delivery of Broadland Way and upgrades to Marriott's Way and the Bure Valley Path |
| <b>Estimated cost to deliver the stage</b>                  | £15,000                                                                                                                                                                                                                                                                                                                                                                                                                                                          | £5.7m                                                                                    |
| <b>Indicative timeframe to deliver stage and start date</b> | Delivered May 2018                                                                                                                                                                                                                                                                                                                                                                                                                                               | Staged – various completion dates dependent on funding source                            |
| <b>Potential funding source</b>                             | Norfolk CC Capital funding                                                                                                                                                                                                                                                                                                                                                                                                                                       | S106, CIL, DfT, LEP                                                                      |
| <b>Qualifications for BRP and or Growth Deal funding</b>    | Supports housing growth in the NE Broadland Growth Triangle and the Western Broadland growth allocation areas. Provides mitigation for the impact of the additional houses on vulnerable environmental sites, particularly those located in the Broads Authority Area. Contributes to the local visitor related economy through providing a very attractive sporting facility. Contributes to the health and wellbeing of residents in the Greater Norwich Area. |                                                                                          |
| <b>Tick system</b>                                          | ✓✓✓                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ✓✓✓                                                                                      |

## Bacton Walcott Sandscaping

This project involves a major investment that will secure Bacton Gas Terminal and the adjacent villages against the imminent threat of erosion. It will thus facilitate the future development and diversification of the Gas Site, which transfers approximately one third of the UK's gas supply. Using pioneering techniques, the coast protection scheme will also ensure that the 'down-drift' frontages that are imminently at risk of failure are also protected. As well as safeguarding significant levels of investment it will help to provide new economic development opportunities in the local visitor economy.

| Bacton Walcott Sandscaping                                  |                                                                            |                                                                   |                                                                                                          |                                                                        |                                                                               |                                                                    |                                                                    |                                               |
|-------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------|
| <b>Description of the stage</b>                             | Assessment/ development of outfall design and incorporation into programme | Preparation/ submission of applications for licenses and consents | Flood and Coastal erosion Risk Management Grant In Aid Outline Business Case preparation and submissions | Procurement of project and contract management and main works contract | Development/ agreement of Operation, Monitoring Plan and Monitoring Agreement | Public communications and liaison                                  | Construction of Scheme                                             | Ongoing Monitoring and research opportunities |
| <b>Estimated cost to deliver the stage</b>                  | Confidential information (Bacton Terminal Operators)                       | Confidential information (Bacton Terminal Operators)              | £40,000                                                                                                  | £75,000                                                                | £20,000                                                                       | £25,000                                                            | £18M – 22M tbc                                                     | £500,000 tbc                                  |
| <b>Indicative timeframe to deliver stage and start date</b> | 5 months<br>Nov 17 – Mar 19                                                | 11 months<br>June 17 – June 18                                    | 6 months<br>Sept 17 – May 18                                                                             | 7 months<br>May 18 – November 18                                       | 11 months<br>Nov 17 – Sept 18                                                 | Ongoing                                                            | Spring 2019                                                        | Summer 2018 - ongoing                         |
| <b>Potential funding sources</b>                            | Funded via Bacton Terminal Operators                                       | Funded via Bacton Terminal Operators and NNDC                     | Funded Flood and Coastal Erosion Risk Management Grant in Aid                                            | Project cost funded through contributions from a number of sources     | Project cost funded through contributions from a number of sources            | Project cost funded through contributions from a number of sources | Project cost funded through contributions from a number of sources | tbc                                           |
| <b>Qualification</b>                                        |                                                                            |                                                                   |                                                                                                          | BRP and                                                                | BRP and                                                                       | BRP and Growth                                                     | BRP and                                                            |                                               |

| for BRP or Growth Fund (as appropriate) |  |  |  | Growth Fund approved | Growth Fund approved | Fund approved | Growth Fund approved |  |
|-----------------------------------------|--|--|--|----------------------|----------------------|---------------|----------------------|--|
| Tick system                             |  |  |  | ✓✓                   | ✓✓                   | ✓✓            | ✓✓✓                  |  |

DRAFT

# Education

## Broadland Growth Triangle Secondary School

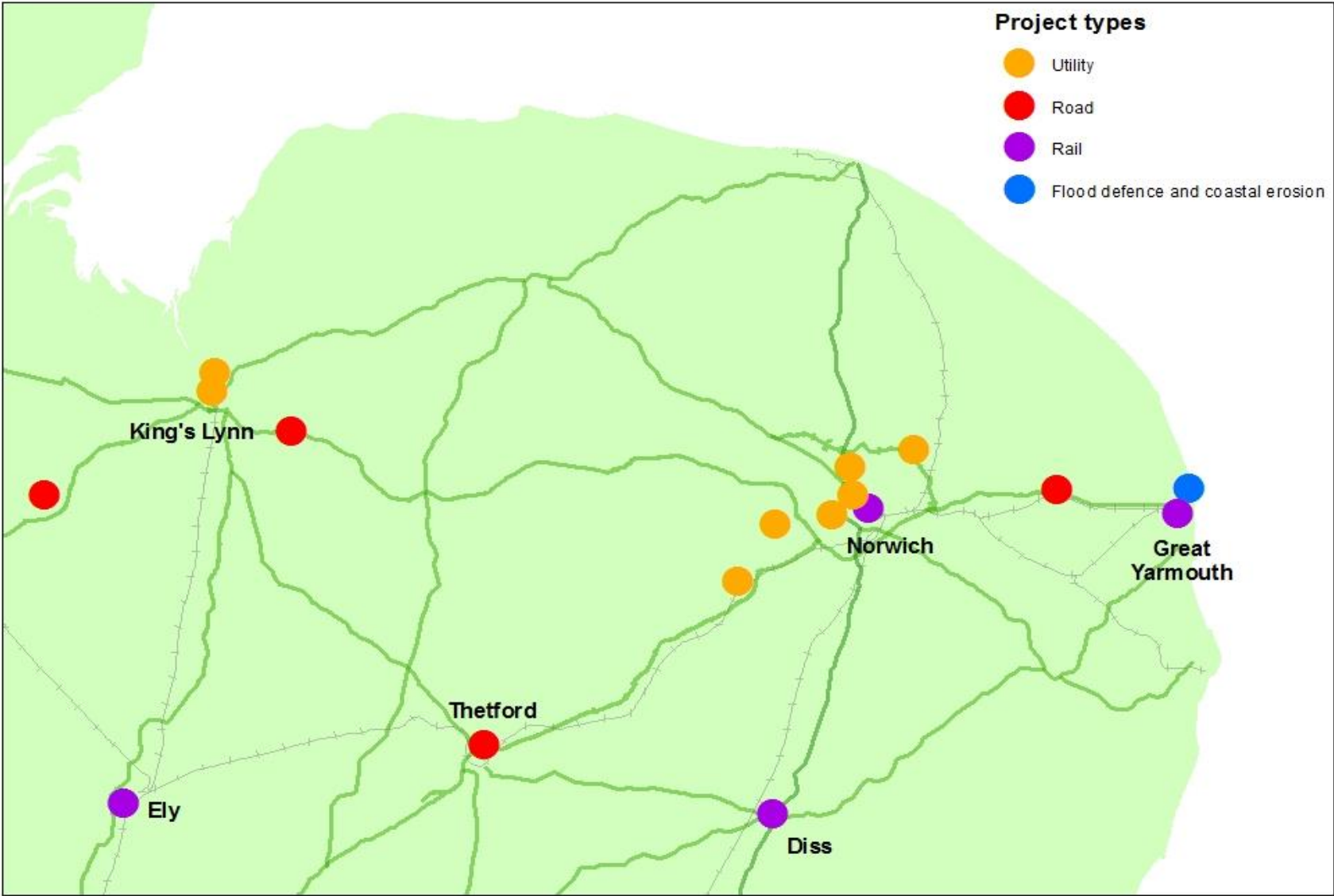
Norfolk County Council has made a commitment for a new Secondary phase school in the Sprowston area and a preferred site has been identified on the current Park and Ride site. Planning towards feasibility of this new school is under way. Consideration may also be given to the possibility of an all-through 4-16 school model.

| Broadland Growth Triangle Secondary School                  |                                                                                                                                                                                                                     |                                                                                                                                                                                                |                                                                                                                                                                                                |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description of stage                                        | Scoping & option assessment & design feasibility                                                                                                                                                                    | Planning                                                                                                                                                                                       | Construction Phase                                                                                                                                                                             |
| <b>Estimated cost to deliver the stage</b>                  | £100k                                                                                                                                                                                                               | £300k                                                                                                                                                                                          | £26M                                                                                                                                                                                           |
| <b>Indicative timeframe to deliver stage and start date</b> | Present to March 2020 - Initial stage underway and has verified Sprowston P&R as preferred location. Locational considerations will however continue to be kept under review as part of ongoing scheme development. | April 2022 to March 2023, subject to successful funding award and implementation of Housing Infrastructure Fund scheme for Beeston Park and development progress in Broadland Growth Triangle. | April 2025 to March 2026, subject to successful funding award and implementation of Housing Infrastructure Fund scheme for Beeston Park and development progress in Broadland Growth Triangle. |
| <b>Potential funding source</b>                             | NCC, BRP                                                                                                                                                                                                            | NCC                                                                                                                                                                                            | NCC, CIL                                                                                                                                                                                       |
| <b>Qualifications for BRP and or Growth Deal funding</b>    | Required to support 13,500 planned homes in Broadland Growth Triangle. In principle agreement exists for BRP funding to support scheme development.                                                                 | Required to support 13,500 planned homes in Broadland Growth Triangle.                                                                                                                         | Required to support 13,500 planned homes in Broadland Growth Triangle.                                                                                                                         |
| <b>Tick system</b>                                          | Completion of this stage will take it from ✓ to ✓✓                                                                                                                                                                  | Completion of this stage will take it to ✓✓✓                                                                                                                                                   | Delivery phase takes scheme beyond ✓✓✓                                                                                                                                                         |



# **Infrastructure projects delivered by other organisations**

Figure 4 Infrastructure projects delivered by other organisations



# Roads

## A11 Thetford Bypass Junctions

Evidence has shown that even without the proposed growth at Thetford, the junctions on the A11 are forecast to operate over their theoretical capacity by 2026, with the Mundford Road (A134) junction experiencing the worst congestion. The issues are exacerbated by the proposed growth of Thetford. As a result, the five junctions on the A11 bypass around Thetford will need to be upgraded during the Plan period. A

Masterplan for the urban extension has been developed and improvements will be made to an appropriate standard agreed with Highways England.

It is likely that the agreed scope of work will comprise traffic signals on the roundabouts and speed limits on the A11. Because of the strategic function of the A11, which is the major trunk road connection between Norwich, Cambridge and London, the County Council considers that this is not an optimum solution and will continue to work with partners – principally Highways England – to bring forward measures that do not diminish the strategic status of the route. Ultimately, this might require grade-separation of the junctions.

| Infrastructure                   | A11 Thetford Bypass Junctions                                                                                                                                                                                                                                                                                                 |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Location</b>                  | Breckland                                                                                                                                                                                                                                                                                                                     |
| <b>Delivers</b>                  | 5,000 homes and 5,000 jobs                                                                                                                                                                                                                                                                                                    |
| <b>Lead authority</b>            | Highways England, Norfolk County Council, Landowners, Breckland District Council                                                                                                                                                                                                                                              |
| <b>Estimated start date</b>      | 2020-2025                                                                                                                                                                                                                                                                                                                     |
| <b>Estimated cost</b>            | TBC                                                                                                                                                                                                                                                                                                                           |
| <b>Unfunded cost</b>             | TBC                                                                                                                                                                                                                                                                                                                           |
| <b>CIL contribution</b>          | No                                                                                                                                                                                                                                                                                                                            |
| <b>Funding opportunities</b>     | NPIF, Highways England Roads Investment Strategy 2 (2020-2025)                                                                                                                                                                                                                                                                |
| <b>Benefits</b>                  | Improves congestion                                                                                                                                                                                                                                                                                                           |
| <b>Link to other information</b> | Thetford Area Action Plan - <a href="https://www.breckland.gov.uk/article/4313/Documents-Library-Publications">https://www.breckland.gov.uk/article/4313/Documents-Library-Publications</a>                                                                                                                                   |
| <b>Status</b>                    | 'Improvements, likely to be signalisation of the junctions will be phased with the delivery of the housing growth. None yet are programmed. More extensive improvements, required to maintain the strategic function of the A11, would be delivered as part of a future Highways England programme, but is not yet committed. |

## A47 Wisbech Bypass Junctions

There are significant congestion issues on the A47 Wisbech bypass especially at the pinch point junctions of the B198 (east and west) and A1101 which are the responsibility of Highways England. Improvements to these junctions could be brought forward as part of Highways England's trunk road programme post-2020 and /or development within the town. There are also safety concerns at Broadend Road which requires a new junction by developers to deliver housing in Wisbech.

Junction improvements/Broad End Road scheme will be brought forward under the Growth Deal Funding from the CPCA Business Board for the Wisbech Access Strategy. Short term to 2021 £10.5m. Medium Term scheme Elm High Road with CPCA funding to 2026.

| Infrastructure            | A47 Wisbech Bypass Junctions                                                                                                                                         |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Location                  | King's Lynn and West Norfolk, Fenland                                                                                                                                |
| Delivers                  | 960 homes and 10,000sqm office space (up to 2026)                                                                                                                    |
| Lead authority            | Developers/ Highways England                                                                                                                                         |
| Estimated start date      | 2020                                                                                                                                                                 |
| Estimated cost            | TBC                                                                                                                                                                  |
| Unfunded cost             | TBC                                                                                                                                                                  |
| CIL contribution          | No                                                                                                                                                                   |
| Funding opportunities     | NPIF, developer funding, Highways England Roads Investment Strategy 2 (2020-2025)                                                                                    |
| Benefits                  | New junctions on the A47 will overcome concerns regarding road safety at the junction and connect growth areas to the trunk road network.                            |
| Link to other information | N/A                                                                                                                                                                  |
| Status                    | Fenland District Council has developed a Wisbech transport strategy, this identifies improvements to roundabouts on the A47 and they are now developing the schemes. |

## A47 Tilney to East Winch dualling

The long term objective of the County Council and other partners is for complete dualling of the A47 along the full length of the trunk road from the A1 at Peterborough to Lowestoft. However, it is recognised that this may need to be achieved through a phased approach to improvements. The A47 Alliance has agreed that the A47 Tilney to East Winch dualling along with the Acle Straight dualling above are two of its priorities for the period 2020-2025.

A number of schemes are committed for construction on the A47 between 2020 and 2025. These are shown on page 12.

| Infrastructure                   | A47 Tilney to East Winch dualling                                                                                                                                                                                           |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Location</b>                  | King's Lynn and West Norfolk                                                                                                                                                                                                |
| <b>Delivers</b>                  | There are strategic site allocations in West Winch and North Runcton, adjacent to A47, which provide for 1,600 homes and 1ha employment land, while employment land is identified at Hardwick (27 ha) and Saddlebow (23ha). |
| <b>Lead authority</b>            | Highways England                                                                                                                                                                                                            |
| <b>Estimated start date</b>      | 2025                                                                                                                                                                                                                        |
| <b>Estimated cost</b>            | £130m                                                                                                                                                                                                                       |
| <b>Unfunded cost</b>             | £130m                                                                                                                                                                                                                       |
| <b>CIL contribution</b>          | No                                                                                                                                                                                                                          |
| <b>Funding opportunities</b>     | Highways England Roads Investment Strategy 2 (2020- 2025)                                                                                                                                                                   |
| <b>Benefits</b>                  | Improves connectivity and reliability                                                                                                                                                                                       |
| <b>Link to other information</b> | A47 Alliance - <a href="http://www.a47alliance.co.uk/our-work/">http://www.a47alliance.co.uk/our-work/</a>                                                                                                                  |
| <b>Status</b>                    | Tilney to East Winch is a current priority of the A47 Alliance who are lobbying for the scheme to be in the Roads Investment Strategy 2.                                                                                    |

## A47 Acle Straight dualling

As well Tilney to east Winch, dualling the Acle Straight is a priority for 2020-2025. Highways England is currently working with various stakeholders on a trial to relocate a species of snail from habitats in the dykes adjacent to the road. If the trials are successful it will enable road improvements to be brought forward (subject to funding) in the trunk road programme 2020-2025. Currently, it is not possible for improvements to be implemented due to their likely impacts on the snail species in the dykes. Early indications suggest the trial to be successful although it will need to continue to be monitored.

| Infrastructure                   | A47 Acle Straight dualling                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Location</b>                  | Broadland, Great Yarmouth                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Delivers</b>                  | The Enterprise Zone covering large parts of Great Yarmouth and Lowestoft will help bring forward 9,000 direct and 4,500 indirect jobs across the area. Furthermore, approximately 14,000 new homes are planned across Great Yarmouth and Lowestoft. The plans for 37,000 new homes and the creation of 27,000 jobs in the Greater Norwich area will further increase demand along the A47 between Greater Norwich and between the Enterprise Zone. |
| <b>Lead authority</b>            | Highways England                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Estimated start date</b>      | 2025                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Estimated cost</b>            | £79m                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Unfunded cost</b>             | £79m                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>CIL contribution</b>          | No                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Funding opportunities</b>     | Highways England Roads Investment Strategy 2 (2020- 2025)                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Benefits</b>                  | Improve accessibility between Norwich and Great Yarmouth and improve the safety record of the road                                                                                                                                                                                                                                                                                                                                                 |
| <b>Link to other information</b> | A47 Alliance - <a href="http://www.a47alliance.co.uk/our-work/">http://www.a47alliance.co.uk/our-work/</a>                                                                                                                                                                                                                                                                                                                                         |
| <b>Status</b>                    | The Acle Straight is a current priority of the A47 Alliance who are lobbying for the scheme to be in the Roads Investment Strategy 2.                                                                                                                                                                                                                                                                                                              |

**Rail**



## Norwich to London Rail (Norwich in 90)

As part of the recent franchise agreement, services will be upgraded to every 20 minutes; there will be new rolling stock; and some services will have journey times of 90 minutes. In recognition of the strength of the study work and lobbying, government formed a Great Eastern Main Line Task Force to define how the ambition for a faster, more reliable, better quality service with more capacity could be delivered to serve the needs of Essex, Suffolk and Norfolk. The Norwich Stansted direct train is also due to commence from February 2019.

Government accepted the key recommendations of the Task Force report. The government required the rail industry to make investments through franchise renewal but further investment is required to deliver the identified improvements in full.

| Infrastructure            | Norwich to London Rail (Norwich in 90)                                                                                                                                                                                                                       |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Location                  | Norwich to London                                                                                                                                                                                                                                            |
| Delivers                  | 48,000 jobs along the line. Improvements would lead to the creation of over a further 8,700 permanent jobs by 2043.                                                                                                                                          |
| Lead authority            | Greater Anglia, Network Rail, NALEP, Local Authorities                                                                                                                                                                                                       |
| Estimated start date      | 2019- 2024                                                                                                                                                                                                                                                   |
| Estimated cost            | Being evaluated                                                                                                                                                                                                                                              |
| Unfunded cost             | TBC                                                                                                                                                                                                                                                          |
| CIL contribution          | No                                                                                                                                                                                                                                                           |
| Funding opportunities     | Network Rail Control Period 6                                                                                                                                                                                                                                |
| Benefits                  | Track improvements (Trowse swing bridge, haughley Junction, loops in Essex and level crossing upgrades) between Norwich and London, achieving London to Chelmsford in 25 minutes, Colchester in 40 minutes, Ipswich in 60 minutes and Norwich in 90 minutes. |
| Link to other information | New Anglia Great Eastern Rail Campaign - <a href="http://www.newanglia.co.uk/gerailcampaign/">http://www.newanglia.co.uk/gerailcampaign/</a>                                                                                                                 |
| Status                    | The Great Eastern Mainline Task Force has commenced work on re-evaluating the business case, which will confirm the measures needed, the cost of the measures and the benefits from their implementation.'                                                   |

## Great Yarmouth Rail Station

Existing services are operated by Greater Anglia as part of the East Anglia franchise. Currently services operate every hour, with 30 minutes services to Great Yarmouth at peak times. The new East Anglia franchise started in October 2016. New rolling stock will be delivered across the whole of the franchise between 2018 and 2020. This should help to address quality issues with the rolling stock, but a major upgrade is required at Great Yarmouth rail station to improve this gateway to the town. Work will shortly be undertaken by the local authorities to improve the Great Yarmouth Rail Station forecourt and onward links to the town centre using Growth Deal money and there has been a long standing ambition for improvements to the Rail Station itself.

| Infrastructure            | Great Yarmouth Rail Station                                                              |
|---------------------------|------------------------------------------------------------------------------------------|
| Location                  | Great Yarmouth                                                                           |
| Delivers                  | Improvements to Great Yarmouth Rail Station                                              |
| Lead authority            | Greater Anglia                                                                           |
| Estimated start date      | 2019- 2024                                                                               |
| Estimated cost            | TBC                                                                                      |
| Unfunded cost             | TBC                                                                                      |
| CIL contribution          | No                                                                                       |
| Funding opportunities     | Network Rail Control Period 6                                                            |
| Benefits                  | Facilitate local plan jobs growth and encourage inward investment into the energy coast. |
| Link to other information | N/A                                                                                      |
| Status                    | Potential for inclusion in Network Rail spending programme 2019-2024                     |

## Ely Area Enhancements

A large number of rail services pass through Ely: King’s Lynn to Cambridge; Norwich to Cambridge; Norwich to Peterborough; Ipswich to Peterborough; and freight services from Felixstowe. Major rail infrastructure improvements are required to accommodate all services committed within franchise agreements and for further frequency improvements in the future. Local authorities are working with local enterprise partnerships, government and Network Rail to bring forward the improvements for delivery in the next round of rail spending, between 2019 and 2024, known as Control Period 6. The New Anglia LEP, GCGP LEP and Strategic Freight Network have invested £8.8m into feasibility work to help bring forward rail improvements in the Ely area, with the feasibility report expected in 2019.

| Infrastructure                   | Ely Area Enhancements                                                                                                                                                      |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Location</b>                  | East Cambridgeshire                                                                                                                                                        |
| <b>Delivers</b>                  | £120m wider economic benefits, and 1,000 homes and 1,000 jobs.                                                                                                             |
| <b>Lead authority</b>            | Network Rail                                                                                                                                                               |
| <b>Estimated start date</b>      | Around 2020                                                                                                                                                                |
| <b>Estimated cost</b>            | TBC                                                                                                                                                                        |
| <b>Unfunded cost</b>             | TBC                                                                                                                                                                        |
| <b>CIL contribution</b>          | No                                                                                                                                                                         |
| <b>Funding opportunities</b>     | Network Rail Control Period 6, Growth Deal                                                                                                                                 |
| <b>Benefits</b>                  | Supports better connectivity on the Cambridge Norwich corridor.                                                                                                            |
| <b>Link to other information</b> | New Anglia website - <a href="http://www.newanglia.co.uk/2017/03/24/vital-ely-rail-project-track/">http://www.newanglia.co.uk/2017/03/24/vital-ely-rail-project-track/</a> |
| <b>Status</b>                    | Currently Network Rail are undertaking £8.8m of feasibility and design work which will be published in 2019 for inclusion in National Rail spending programme 2019/24.     |

## East West Rail (Cambridge to Oxford)

The complete East West Rail scheme comprises a strategic rail route that will link Ipswich and Norwich to Cambridge, Bedford, Milton Keynes, Bicester and Oxford, allowing connections to Swindon, the Thames Valley, South West England and South Wales, together with a spur to Aylesbury. The route will connect the ports of Felixstowe and Harwich with the Great Eastern, East Coast, Midland, West Coast and Great Western main lines without the need to travel on congested tracks around North London. It also provides an extra route for north-south intermodal traffic from the port of Southampton.

The route links the strategic growth areas in Norfolk to Milton Keynes, Aylesbury and Bedford, as well as Oxford, and provides a connection across the important Oxford to Cambridge “high tech arc”. East West Rail is supported by Norfolk County Council.

| Infrastructure                   | East West Rail (Cambridge to Oxford)                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Location</b>                  | Cambridge to Oxford                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Delivers</b>                  | Establishes a railway connecting East Anglia with central, southern and western England.                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Lead authority</b>            | Local authorities along the route working with DfT and Network Rail                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Estimated start date</b>      | Late 2020s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Estimated cost</b>            | TBC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Unfunded cost</b>             | TBC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>CIL contribution</b>          | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Funding opportunities</b>     | Government via special purpose delivery vehicle                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Benefits</b>                  | Connects Oxford and Cambridge to major economies in New Anglia.                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Link to other information</b> | East West Rail - <a href="http://www.eastwestrail.org.uk/route">www.eastwestrail.org.uk/route</a>                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Status</b>                    | Major upgrades led to services starting on phase 1 of the western section, between Oxford and Bicester, in December 2016. Services are due to start operating in the early 2020s to connect through to Bedford and Milton Keynes. Network Rail is currently looking at routes through to Cambridge on new track. Construction could start in the early 2020s with opening in the early 2030s. Work is ongoing to identify how services might extend to Norwich and Ipswich (on existing tracks). |

# Utilities

## Thetford Water Supply

A major 5,000 unit housing development (Thetford SUE) commenced on site in spring 2018 with the first 343 units now in contract. This first phase will use all remaining water capacity in Thetford. Anglian Water has provided a strategy for upgrading their potable water network to serve the housing development, a large employment area on the SUE and an adjacent large employment area known as the Thetford Enterprise Park. This includes a proposed 4.75km rising main from Barnham Cross/Nunnery Lodge to increase capacity at the Mundford Road Reservoir with a new rising main from the reservoir to serve each development. The two employment sites have a joint capacity for circa. 140,000sq m of B1, B2 and B8 development and potential to create 3,600 jobs.

| Infrastructure                   | Thetford Water Supply                                                                                                                                                                                      |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Location</b>                  | Breckland                                                                                                                                                                                                  |
| <b>Delivers</b>                  | 5,000 homes and 3,600 jobs in Thetford                                                                                                                                                                     |
| <b>Lead Authority</b>            | Anglian Water, Breckland District Council, developers/landowners                                                                                                                                           |
| <b>Estimated Start Date</b>      | 2018                                                                                                                                                                                                       |
| <b>Estimated Cost</b>            | £9.8m                                                                                                                                                                                                      |
| <b>Unfunded Cost</b>             | TBC                                                                                                                                                                                                        |
| <b>CIL Contribution</b>          | No                                                                                                                                                                                                         |
| <b>Funding Opportunities</b>     | HCA, Growth Deal, Private Sector                                                                                                                                                                           |
| <b>Benefits</b>                  | Supports the delivery of 5,000 homes and jobs                                                                                                                                                              |
| <b>Link to other information</b> | Thetford Area Action Plan adopted (2012) - <a href="https://www.breckland.gov.uk/article/4313/Documents-Library-Publications">https://www.breckland.gov.uk/article/4313/Documents-Library-Publications</a> |
| <b>Status</b>                    | Baseline requirement                                                                                                                                                                                       |

## Thetford Sewerage Scheme

A major 5,000 unit housing development (Thetford SUE) commenced on site in spring 2018 with the first 343 units now in contract. This first phase will use remaining sewage capacity in Thetford. An outlet with sufficient spare capacity has been identified to the north west of Thetford and an outline scheme design has been produced. The project would serve the sewage disposal requirements of the Thetford SUE, several large employment areas on the Thetford SUE and an adjacent large employment area known as the Thetford Enterprise Park.

| Infrastructure            | Thetford Sewerage Scheme                                                                                                                                                                                   |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Location                  | Breckland                                                                                                                                                                                                  |
| Delivers                  | 5,000 homes and 3,600 jobs in Thetford                                                                                                                                                                     |
| Lead Authority            | Anglian Water, Breckland District Council, developers/landowners                                                                                                                                           |
| Estimated Start Date      | 2019                                                                                                                                                                                                       |
| Estimated Cost            | £2m                                                                                                                                                                                                        |
| Unfunded Cost             | TBC                                                                                                                                                                                                        |
| CIL Contribution          | No                                                                                                                                                                                                         |
| Funding Opportunities     | Growth Deal, Private Sector                                                                                                                                                                                |
| Benefits                  | Supports the delivery of 5,000 homes and jobs                                                                                                                                                              |
| Link to other information | Thetford Area Action Plan adopted (2012) - <a href="https://www.breckland.gov.uk/article/4313/Documents-Library-Publications">https://www.breckland.gov.uk/article/4313/Documents-Library-Publications</a> |
| Status                    | Baseline requirement                                                                                                                                                                                       |

## Broadland Growth Triangle and North Norwich Substations

This area is presently fed via four existing substations (Sprowston, George Hill, Horsford and Boundary park), which are all meeting capacity. When this capacity is exhausted, it is intended to establish a new substation near the airport. Overloading in the central area of Norwich has increased which has brought both the Thorpe grid and Trowse grid close to capacity. The Thorpe grid will need to be enhanced before any new substation could be established.

| Infrastructure                   | Hurricane Way Substation                                                                                                                                                                                                           | Airport North Substation                            | Sprowston and Rackheath |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------|
| <b>Location</b>                  | Norwich                                                                                                                                                                                                                            | Broadland                                           | Broadland               |
| <b>Delivers</b>                  | Airport business park extension                                                                                                                                                                                                    | A possible 10,000 homes and Broadland Business Park | A possible 10,000 homes |
| <b>Lead Authority</b>            | UK Power Networks                                                                                                                                                                                                                  | UK Power Networks                                   | UK Power Networks       |
| <b>Estimated start date</b>      | TBC                                                                                                                                                                                                                                | TBC                                                 | TBC                     |
| <b>Delivery</b>                  | Short term                                                                                                                                                                                                                         | Medium term                                         | Long term               |
| <b>Estimated cost</b>            | TBC                                                                                                                                                                                                                                | TBC                                                 | TBC                     |
| <b>Unfunded cost</b>             | TBC                                                                                                                                                                                                                                | TBC                                                 | TBC                     |
| <b>CIL contribution</b>          | Yes                                                                                                                                                                                                                                | Yes                                                 | Yes                     |
| <b>Funding opportunities</b>     | CIL, private sector                                                                                                                                                                                                                | CIL, private sector                                 | CIL, private sector     |
| <b>Benefits</b>                  | Support the delivery of 10,000 homes and job development at airport and Rackheath                                                                                                                                                  |                                                     |                         |
| <b>Link to other information</b> | GNDP Local Investment Plan and Programme - <a href="http://www.greaternorwichgrowth.org.uk/delivery/greater-norwich-infrastructure-plan/">http://www.greaternorwichgrowth.org.uk/delivery/greater-norwich-infrastructure-plan/</a> |                                                     |                         |
| <b>Status</b>                    | Baseline requirement                                                                                                                                                                                                               |                                                     |                         |





## Earlham Substation

This sector is currently fed from the Earlham sub-station. Significant capacity being used by committed development (such as NRP). A few MWs are being reserved on an annual basis and beyond that further growth is difficult and the network will be likely to require reinforcement.

| Infrastructure                   | Earlham Substation                                                                                                         |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <b>Location</b>                  | South Norfolk                                                                                                              |
| <b>Delivers</b>                  | 900 homes at Easton and jobs at NRP and Food Hub                                                                           |
| <b>Lead authority</b>            | Greater Norwich                                                                                                            |
| <b>Estimated start date</b>      | TBC                                                                                                                        |
| <b>Estimated cost</b>            | TBC                                                                                                                        |
| <b>Unfunded cost</b>             | TBC                                                                                                                        |
| <b>CIL contribution</b>          | Possibly                                                                                                                   |
| <b>Funding opportunities</b>     | CIL, private sector                                                                                                        |
| <b>Benefits</b>                  | Critical for growth of NRP and will support the delivery of growth in to the SW Norwich – 900 homes at Easton and Food Hub |
| <b>Link to other information</b> | N/A                                                                                                                        |
| <b>Status</b>                    | Baseline requirement                                                                                                       |

## Easton, Hethersett and Cringleford Sewerage Upgrade

Existing sewerage infrastructure serving Easton/Costessey is at full capacity and new infrastructure will be required. The Greater Norwich Development Partnership Stage 2b Water Cycle Study identified the need for growth to be served by upgrades to the existing Yare Valley Trunk Sewer discharging to the Trowse Pumping Station and then on to the Whitlingham WRC which has sufficient spare capacity.

| Infrastructure            | Easton, Hethersett and Cringleford Sewerage Upgrade                                                                                                                                                                                |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Location                  | South Norfolk                                                                                                                                                                                                                      |
| Delivers                  | 3,200 homes                                                                                                                                                                                                                        |
| Lead authority            | Anglian Water                                                                                                                                                                                                                      |
| Estimated start date      | 2011-2016                                                                                                                                                                                                                          |
| Estimated cost            | TBC                                                                                                                                                                                                                                |
| Unfunded cost             | TBC                                                                                                                                                                                                                                |
| CIL contribution          | Possibly                                                                                                                                                                                                                           |
| Funding opportunities     | Private sector                                                                                                                                                                                                                     |
| Benefits                  | Supports the delivery of 3,200 homes to the southwest of Norwich                                                                                                                                                                   |
| Link to other information | GNDP Local Investment Plan and Programme - <a href="http://www.greaternorwichgrowth.org.uk/delivery/greater-norwich-infrastructure-plan/">http://www.greaternorwichgrowth.org.uk/delivery/greater-norwich-infrastructure-plan/</a> |
| Status                    | Baseline requirement                                                                                                                                                                                                               |

## Broadland Growth Triangle Trunk Sewer

There is no significant capacity constraint from the existing works at Whitlingham or Belaugh, but there is in the existing sewerage network. An existing trunk main connecting from Sprowston to Whitlingham has a limited amount of capacity. After capacity within this main is used, new infrastructure would be required to give a connection of adequate capacity to the Whitlingham Water Recycling Centre (WRC).

| Infrastructure            | Northeast Norwich Trunk Sewer                                                                                                                                                                                                      |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Location                  | Broadland                                                                                                                                                                                                                          |
| Delivers                  | A possible 10,000 homes                                                                                                                                                                                                            |
| Lead authority            | Anglian Water                                                                                                                                                                                                                      |
| Estimated start date      | 2011-2026                                                                                                                                                                                                                          |
| Estimated cost            | TBC                                                                                                                                                                                                                                |
| Unfunded cost             | TBC                                                                                                                                                                                                                                |
| CIL contribution          | Yes                                                                                                                                                                                                                                |
| Funding opportunities     | Private sector, CIL                                                                                                                                                                                                                |
| Benefits                  | Supports the delivery of 10,000 homes to the northeast of Norwich                                                                                                                                                                  |
| Link to other information | GNDP Local Investment Plan and Programme - <a href="http://www.greaternorwichgrowth.org.uk/delivery/greater-norwich-infrastructure-plan/">http://www.greaternorwichgrowth.org.uk/delivery/greater-norwich-infrastructure-plan/</a> |
| Status                    | Baseline requirement                                                                                                                                                                                                               |

## Heigham Water Works

Anglian Water investment programme identified upgrades to Heigham Water Treatment works in Norwich to protect the environment along the River Wensum, and secure supplies for the growing city of Norwich.

| Infrastructure                   | Heigham Water Works                                                                                                                                                                                                                |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Location</b>                  | Norwich                                                                                                                                                                                                                            |
| <b>Delivers</b>                  | Water supply for growth in the Norwich area                                                                                                                                                                                        |
| <b>Lead authority</b>            | Greater Norwich                                                                                                                                                                                                                    |
| <b>Estimated start date</b>      | TBC                                                                                                                                                                                                                                |
| <b>Estimated cost</b>            | TBC                                                                                                                                                                                                                                |
| <b>Unfunded cost</b>             | TBC                                                                                                                                                                                                                                |
| <b>CIL contribution</b>          | Possibly                                                                                                                                                                                                                           |
| <b>Funding opportunities</b>     | Private Sector                                                                                                                                                                                                                     |
| <b>Benefits</b>                  | Will secure the water supply for future housing and population growth in the Norwich area                                                                                                                                          |
| <b>Link to other information</b> | GNDP Local Investment Plan and Programme - <a href="http://www.greaternorwichgrowth.org.uk/delivery/greater-norwich-infrastructure-plan/">http://www.greaternorwichgrowth.org.uk/delivery/greater-norwich-infrastructure-plan/</a> |
| <b>Status</b>                    | Baseline requirement                                                                                                                                                                                                               |

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## Wymondham Water Supply Connections

Water resource is available in principal for the 4,400 homes planned for Wymondham. However, network improvements will be required before connection can take place.

| Infrastructure            | Wymondham Water Supply Connections                                                                                                                                                                                                 |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Location                  | South Norfolk                                                                                                                                                                                                                      |
| Delivers                  | 4,400 homes                                                                                                                                                                                                                        |
| Lead authority            | Anglian Water                                                                                                                                                                                                                      |
| Estimated start date      | TBC                                                                                                                                                                                                                                |
| Estimated cost            | £22m                                                                                                                                                                                                                               |
| Unfunded cost             | TBC                                                                                                                                                                                                                                |
| CIL contribution          | Yes                                                                                                                                                                                                                                |
| Funding opportunities     | Private sector                                                                                                                                                                                                                     |
| Benefits                  | Supports the delivery of 4,400 homes                                                                                                                                                                                               |
| Link to other information | GNDP Local Investment Plan and Programme - <a href="http://www.greaternorwichgrowth.org.uk/delivery/greater-norwich-infrastructure-plan/">http://www.greaternorwichgrowth.org.uk/delivery/greater-norwich-infrastructure-plan/</a> |
| Status                    | Baseline requirement                                                                                                                                                                                                               |

## King's Lynn Sewerage Improvements

To help facilitate growth in King's Lynn, sewerage improvements may be required.

| Infrastructure                   | Upgraded waste water flow capacity in King's Lynn                               | Major sewerage improvements at King's Lynn |
|----------------------------------|---------------------------------------------------------------------------------|--------------------------------------------|
| <b>Location</b>                  | King's Lynn and West Norfolk                                                    | King's Lynn and West Norfolk               |
| <b>Delivers</b>                  | Housing growth in King's Lynn                                                   |                                            |
| <b>Lead authority</b>            | Anglian Water                                                                   | Anglian Water                              |
| <b>Estimated start date</b>      | TBC                                                                             | TBC                                        |
| <b>Estimated cost</b>            | Circa £500,000                                                                  | £1-1.2m                                    |
| <b>Unfunded cost</b>             | Circa £500,000                                                                  | £1-1.2m                                    |
| <b>CIL contribution</b>          | Possibly                                                                        | Possibly                                   |
| <b>Funding opportunities</b>     | CIL, private sector                                                             |                                            |
| <b>Benefits</b>                  | To help facilitate growth in King's Lynn, sewerage improvements may be required |                                            |
| <b>Link to other information</b> | N/A                                                                             | N/A                                        |
| <b>Status</b>                    | Baseline requirement                                                            | Baseline requirement                       |

## Increased Surface Water Capacity North Lynn

In addition, increased surface water capacity is required in North Lynn (through the North Lynn link scheme linking the Black Drain with the Bawsey Drain and providing a second pump at North Lynn Pumping Station) to enable the development of the strategic housing allocation at South Wootton and other housing land in North Lynn.

| Infrastructure                   | Increased Surface Water Capacity North Lynn                       |
|----------------------------------|-------------------------------------------------------------------|
| <b>Location</b>                  | King's Lynn and West Norfolk                                      |
| <b>Delivers</b>                  | Up to 800 homes at South Wootton and some 700 homes in North Lynn |
| <b>Lead authority</b>            | King's Lynn IDB                                                   |
| <b>Estimated start date</b>      | 2020-21                                                           |
| <b>Estimated cost</b>            | TBC                                                               |
| <b>Unfunded cost</b>             | TBC                                                               |
| <b>CIL contribution</b>          | Possibly                                                          |
| <b>Funding opportunities</b>     | IDB, private sector                                               |
| <b>Benefits</b>                  | Enables housing development in South Wootton/ North Lynn          |
| <b>Link to other information</b> | N/A                                                               |
| <b>Status</b>                    | Commissioning of feasibility work has begun.                      |

**Sustainable**



## Great Yarmouth Flood Defences 2017 onwards (Epoch 2)

There are approximately 12km of flood defences in Great Yarmouth that help reduce the risk of tidal flooding to over 5000 homes and 1000 businesses from the River Yare. However, the steel piled quays supporting our flood defence walls are badly corroded and need replacing. Failure of these defences during a surge tide event would result in rapid flooding of properties in the lower lying land adjoining the river. We have developed a 5 epoch project over the next 40 years to address this issue, prioritised based on the condition of the defences.

| Infrastructure                   | Great Yarmouth Flood Defences 2017 onwards (Epoch 2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Location</b>                  | Great Yarmouth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Delivers</b>                  | The Environment Agency is currently developing Epoch 2 to improve 2.4km of frontage and external contributions are required to secure funding approval. Instead of replacing the steel sheet pile quayside walls some of the assets planned for the Epoch 2 work have been identified to be in better condition. As a result we have trialled the rejuvenation of the sheet piling of Wall 36 using a Limpet Dam to enable patching of the corroded pile sections and installation of cathodic protection to stop future accelerated low water corrosion. It is anticipated that adopting this approach will allow a further 50 years of life to be gained from the assets for an estimated 30% of the cost of replacement. |
| <b>Lead authority</b>            | Environment Agency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Estimated start date</b>      | TBC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Estimated cost</b>            | TBC £27-76m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Unfunded cost</b>             | TBC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>CIL contribution</b>          | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Funding opportunities</b>     | NALEP, local authorities, private sector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Benefits</b>                  | Land enabled for economic growth and appropriate resilient development, in line with local development strategies and supporting policies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Link to other information</b> | Environment Agency announcement - <a href="https://www.gov.uk/government/news/thousands-of-properties-protected-in-first-phase-of-flood-defence-scheme">https://www.gov.uk/government/news/thousands-of-properties-protected-in-first-phase-of-flood-defence-scheme</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Status</b>                    | The EA have begun the options appraisal to confirm the other flood risk management improvement works to be delivered during Epoch 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |