

SCOPING OPINION:

Proposed A47 Blofield to North Burlingham

Case Reference: TR010040

Adopted by the Planning Inspectorate (on behalf of the Secretary of State for Housing, Communities and Local Government) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

March 2018

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1. INTRODUCTION

1.1 Background

- 1.1.1 On 06 February 2018, the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) received a scoping request from Highways England (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed A47 Blofield to North Burlingham (the Proposed Development).
- 1.1.2 In accordance with Regulation 10 of the EIA Regulations, an Applicant may ask the SoS to state in writing its opinion '*as to the scope, and level of detail, of the information to be provided in the environmental statement*'.
- 1.1.3 This document is the Scoping Opinion (the Opinion) provided by the Inspectorate on behalf of the SoS in respect of the Proposed Development. It is made on the basis of the information provided in the Applicant's report entitled A47 Blofield to North Burlingham EIA Scoping Report (the Scoping Report). This Opinion can only reflect the proposals as currently described by the Applicant. The Scoping Opinion should be read in conjunction with the Applicant's Scoping Report.
- 1.1.4 The Applicant has notified the SoS under Regulation 8(1)(b) of the EIA Regulations that they propose to provide an Environmental Statement (ES) in respect of the Proposed Development. Therefore, in accordance with Regulation 6(2)(a) of the EIA Regulations, the Proposed Development is EIA development.
- 1.1.5 Regulation 10(9) of the EIA Regulations requires that before adopting a Scoping Opinion the Inspectorate must take into account:
- (a) *any information provided about the proposed development;*
 - (b) *the specific characteristics of the development;*
 - (c) *the likely significant effects of the development on the environment;*
and
 - (d) *in the case of a subsequent application, the environmental statement submitted with the original application.*
- 1.1.6 This Opinion has taken into account the requirements of the EIA Regulations as well as current best practice towards preparation of an ES.
- 1.1.7 The Inspectorate has consulted on the Applicant's Scoping Report and the responses received from the consultation bodies have been taken into account in adopting this Opinion (see Appendix 2).
- 1.1.8 The points addressed by the Applicant in the Scoping Report have been carefully considered and use has been made of professional judgement and experience in order to adopt this Opinion. It should be noted that

when it comes to consider the ES, the Inspectorate will take account of relevant legislation and guidelines. The Inspectorate will not be precluded from requiring additional information if it is considered necessary in connection with the ES submitted with the application for a Development Consent Order (DCO).

- 1.1.9 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the Applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (eg on submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or associated development or development that does not require development consent.
- 1.1.10 Regulation 10(3) of the EIA Regulations states that a request for a Scoping Opinion must include:
- (a) a plan sufficient to identify the land;
 - (b) *a description of the proposed development, including its location and technical capacity;*
 - (c) *an explanation of the likely significant effects of the development on the environment; and*
 - (d) *such other information or representations as the person making the request may wish to provide or make.*
- 1.1.11 The Inspectorate considers that this has been provided in the Applicant's Scoping Report. The Inspectorate is satisfied that the Scoping Report encompasses the relevant aspects identified in the EIA Regulations.
- 1.1.12 In accordance with Regulation 14(3)(a), where a Scoping Opinion has been issued in accordance with Regulation 10 an ES accompanying an application for an order granting development consent should be based on *'the most recent scoping opinion adopted (so far as the proposed development remains materially the same as the proposed development which was subject to that opinion)'*.
- 1.1.13 The Inspectorate notes the potential need to carry out an assessment under The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations). This document must be co-ordinated with the EIA, to avoid duplication of information between assessments.

1.2 The Planning Inspectorate's Consultation

- 1.2.1 In accordance with Regulation 10(6) of the EIA Regulations the Inspectorate has consulted the consultation bodies before adopting a Scoping Opinion. A list of the consultation bodies formally consulted by the Inspectorate is provided at Appendix 1. The consultation bodies have been notified under Regulation 11(1)(a) of the duty imposed on them by Regulation 11(3) of the EIA Regulations to make information available to

the Applicant relevant to the preparation of the ES. The Applicant should note that whilst the list can inform their consultation, it should not be relied upon for that purpose.

- 1.2.2 The list of respondents who replied within the statutory timeframe and whose comments have been taken into account in the preparation of this Opinion is provided, along with copies of their comments, at Appendix 2, to which the Applicant should refer in undertaking the EIA.
- 1.2.3 The ES submitted by the Applicant should demonstrate consideration of the points raised by the consultation bodies. It is recommended that a table is provided in the ES summarising the scoping responses from the consultation bodies and how they are, or are not, addressed in the ES.
- 1.2.4 Any consultation responses received after the statutory deadline for receipt of comments will not be taken into account within this Opinion. Late responses will be forwarded to the Applicant and will be made available on the Inspectorate's website. The Applicant should also give due consideration to those comments in carrying out the EIA.

1.3 Article 50 of the Treaty on European Union

- 1.3.1 On 23 June 2016, the United Kingdom (UK) held a referendum and voted to leave the European Union (EU). On 29 March 2017 the Prime Minister triggered Article 50 of the Treaty on European Union, which commenced a two year period of negotiations regarding the UK's exit from the EU. There is no immediate change to legislation or policy affecting national infrastructure. Relevant EU Directives have been transposed into UK law and those are unchanged until amended by Parliament.

2. THE PROPOSED DEVELOPMENT

2.1 Introduction

- 2.1.1 The following is a summary of the information on the Proposed Development and its site and surroundings prepared by the Applicant and included in their Scoping Report. The information has not been verified and it has been assumed that the information provided reflects the existing knowledge of the Proposed Development and the potential receptors/resources.

2.2 Description of the Proposed Development

- 2.2.1 The Applicant's description of the Proposed Development and its location is provided in Scoping Report sections 2.3 and 2.4.
- 2.2.2 The Proposed Development comprises the construction of 4.5km of new carriageway, converting an existing 2.6km section of single carriageway between the villages of Blofield and North Burlingham into a dual carriageway. At Blofield, it includes improvements to the western junction for accessing the A47 from Yarmouth Road including westbound only access onto the A47, as well as the realignment of the Yarmouth Road/Hemblington Road junction with a new link road and a new bridge connecting to the old A47 alignment. East of North Burlingham, the Proposed Development includes a new access link from Main Street to South Walsham Road, and a new compact grade separated junction with connection to South Walsham and Acle roads.
- 2.2.3 The proposed construction works are anticipated to commence in 2020, and last approximately 16 months. The Proposed Development is due to be operational in 2021.
- 2.2.4 The Proposed Development is located 9km to the east of Norwich, on the trunk road that connects Norwich with Great Yarmouth. Blofield and North Burlingham lie within the jurisdictions of Broadland District Council and Norfolk County Council. Between the Norwich and Great Yarmouth the existing stretch of the A47 narrows to a single carriageway with a speed limit of 50mph, and constitutes one of a number of congestion hotspots along the A47. A site location plan is provided at Figure A.1 (Appendix A).
- 2.2.5 The DCO site boundary comprises a total area of 104ha. The surrounding area is primarily rural, with arable agriculture dominating the existing land use.

2.3 The Planning Inspectorate's Comments

Description of the Proposed Development

- 2.3.1 Section 2.4 of the Scoping Report provides only a brief description of the main components of the Proposed Development. Figure 1.1 provides an

indication of the location of the Proposed Development, however no scheme detail is provided eg junction layouts, bridge arrangements etc. The lack of detail to the description combined with the lack of figures limits the ability of the Inspectorate and the consultation bodies to fully comprehend the proposals and provide comment on the scope of the assessment. This point is also reflected in Suffolk and Norfolk County Councils' consultation responses.

- 2.3.2 The Inspectorate expects that at the point of application the ES should include a detailed description of the Proposed Development which includes all of the works for which development consent is sought, supported by clear figures. Details of components such as signage, gantries, lighting, drainage features, landscaping and environmental mitigation features have not been specified in the Scoping Report and this information should be provided in the ES.
- 2.3.3 The Inspectorate notes that the DCO Site Boundary shown in Figure A.1 of the Scoping Report includes a route running diagonally from the south-western corner of the boundary, across a field bordered by Hemblington Road to the east and Braydeston Hall Lane to the west. From the description of the development it is not clear what works are anticipated in this area, although it is understood that they relate to drainage.
- 2.3.4 The ES should describe any development activities associated with The Windle, which is located close to the proposed DCO Site Boundary.
- 2.3.5 The description of the Proposed Development and the development footprint do not distinguish between temporary and permanent land take. The ES should clearly identify temporary land take (eg for construction compounds, demolition works, access routes, spoil handling), as well as the operational land take (including drainage features and mitigation areas).
- 2.3.6 Limited information is provided in the Scoping Report relating to the physical characteristics of the Proposed Development during construction and operation. The ES should include a clear description of all relevant works/activities and development including; demolition works; construction facilities and accesses; site clearance activities; ground and excavation works and works to services and utilities. It is noted that Cadent and UK Power Networks apparatus are located in the vicinity of the Proposed Development and must be taken into account in the design development (Appendix 2).
- 2.3.7 Where flexibility is sought, the ES should set out the parameters that would apply for all components of the Proposed Development, where applicable setting out clearly any proposed limits of deviation. This should include the footprint and heights of structures (eg bridges and lighting columns) and permanent earthworks such as embankments (taking account of existing ground levels). The description should be supported by appropriate figures/drawings which should be clearly and

appropriately referenced in the ES. Further advice on flexibility is provided below.

- 2.3.8 Construction of the Proposed Development is proposed to last for approximately 16 months. The ES should set out any anticipated phased approach to construction, including the likely duration and location of construction activities. Construction traffic routing should be described (with reference to an accompanying plan), along with anticipated numbers/types of vehicle movements, with sufficient detail to enable a robust assessment in the ES. A draft/outline Construction Traffic Management Plan (CTMP) should be provided with the DCO application and agreed with relevant consultees. The CTMP should set out a clear strategy for managing temporary traffic diversions, including any diversion of heavy goods vehicles (HGVs) on the B1140 associated with sugar beet farming activities in the local area.
- 2.3.9 The Scoping Report provides a brief description of the location of the Proposed Development, and an overview of existing footways and other non-motorised routes in the vicinity. The ES should provide a detailed description of the existing land uses and features across the land to which the proposed DCO application relates. This information should be taken into account where relevant to individual aspect assessments.

Alternatives

- 2.3.10 The EIA Regulations require that the Applicant provide 'A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects'.
- 2.3.11 The Inspectorate notes the inclusion of a discrete section in the Scoping Report (chapter 3) that describes the alternative route alignments that were considered and consulted upon. The Inspectorate expects a comparable section to be included in the ES, which should include text and figures detailing the options considered for siting the dual carriageway as well as the configurations of the junctions and access roads.
- 2.3.12 The ES must also provide the reasoning for the selection of the chosen option(s), and this must include a comparison of the environmental effects.

Flexibility

- 2.3.13 The Applicant's attention is drawn to the Inspectorate's Advice Note Nine 'Using the 'Rochdale Envelope'¹, which provides additional details on the recommended approach.
- 2.3.14 The Applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the Proposed Development have yet to be finalised and provide the reasons. At the time of application, any Proposed Development parameters should not be so wide-ranging as to represent effectively different developments. The development parameters will need to be clearly defined in the draft DCO (dDCO) and in the accompanying ES. It is a matter for the Applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the Proposed Development in the ES must not be so wide that it is insufficiently certain to comply with the requirements of Regulation 14 of the EIA Regulations.
- 2.3.15 The Inspectorate draws attention to paragraph 12.7.18 of the Scoping Report, which states that "the construction footprint (proposed site boundary) and the associated agricultural land-take has been based on the current proposed site boundary drawing" and that "the full extent of land-take (permanent or temporary) during construction is still unknown at this stage". It should be noted that if the Proposed Development changes substantially during the EIA process and prior to submission of the DCO application the Applicant may wish to consider requesting a new Scoping Opinion.

¹ Advice Note nine: Using the Rochdale Envelope. 2012. Available at:
<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

3. EIA APPROACH

3.1 Introduction

- 3.1.1 This section contains the Inspectorate's specific comments on the scope and level of detail of information to be provided in the Applicant's ES. General advice on the presentation of an ES is provided in the Inspectorate's Advice Note Seven 'Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements'² and associated appendices.
- 3.1.2 Aspects/matters are not scoped out unless specifically addressed and justified by the Applicant, and confirmed as being scoped out by the Inspectorate. The ES should be based on the Scoping Opinion in so far as the Proposed Development remains materially the same as the Proposed Development described in the Applicant's Scoping Report. The Inspectorate has set out in this Opinion where it has/has not agreed to scope out certain aspects/matters on the basis of the information available at this time. The Inspectorate is content that this should not prevent the Applicant from subsequently agreeing with the relevant consultees to scope such aspects/matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects/matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.
- 3.1.3 Where relevant, the ES should provide reference to how the delivery of measures proposed to prevent/minimise adverse effects is secured through DCO requirements (or other suitably robust methods) and whether relevant consultees agree on the adequacy of the measures proposed.

3.2 Relevant National Policy Statements (NPSs)

- 3.2.1 Sector-specific NPSs are produced by the relevant Government Departments and set out national policy for NSIPs. They provide the framework within which the Examining Authority (ExA) will make their recommendation to the SoS and include the Government's objectives for the development of NSIPs. The NPSs may include environmental requirements for NSIPs, which Applicants should address within their ES.
- 3.2.2 The designated NPS relevant to the Proposed Development is the National Policy Statement for National Networks (NPSNN). The

² Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements and annex. Available from: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

Inspectorate notes that this is identified in paragraphs 1.11.2 and advises that the EIA takes account of this policy document.

3.3 Scope of Assessment

General

- 3.3.1 The Inspectorate recommends that in order to assist the decision-making process, the Applicant uses tables:
- to demonstrate how the assessment has taken account of this Opinion;
 - to identify and collate the residual effects after mitigation for each of the aspect chapters, including the relevant interrelationships and cumulative effects;
 - to set out the proposed mitigation and/or monitoring measures including cross-reference to the means of securing such measures (eg a dDCO requirement);
 - to describe any remedial measures that are identified as being necessary following monitoring; and
 - to identify where details are contained in the Habitats Regulations Assessment (HRA report) (where relevant), such as descriptions of European sites and their locations, together with any mitigation or compensation measures, are to be found in the ES.
- 3.3.2 The Inspectorate considers that where a DCO application includes works described as 'Associated Development', that could themselves be defined as an improvement of a highway, the Applicant should ensure that the ES accompanying that application distinguishes between; effects that primarily derive from the integral works which form the proposed (or part of the proposed) NSIP and those that primarily derive from the works described as associated development, for example through a suitably compiled summary table. This will have the benefit of giving greater confidence to the Inspectorate that what is proposed is not in fact an additional NSIP defined in accordance with s22 of the PA2008.
- 3.3.3 While the structure of the ES remains for the Applicant to decide, relevant information that would appear in a Transport Assessment must be provided in the ES. The Inspectorate considers that the ES must clearly explain where the information gathered as part of the traffic assessment (including traffic modelling and baseline transport information) is applied to other aspect assessments within the ES, for example Air Quality, Noise and Vibration, and People and Communities.
- 3.3.4 The ES should assess the impacts from proposed construction traffic management measures including any road closures or diversions. Royal Mail Group Ltd has provided comments in this regard along with information on their operations in the area which should be taken into account in undertaking this assessment.

- 3.3.5 Throughout the Scoping Report, the Proposed Development is referred to inconsistently with terms such as; "the Proposed Scheme", "the project extents", "the construction footprint", "the construction site" and "the scheme area" all used. Study areas are variously defined with respect to the 'scheme limits', 'Proposed Scheme', 'locations where physical works and ground disturbance would take place' and '1km of the physical works'. The lack of consistent definition prevents a clear understanding of the proposed study areas and how relevant baseline information has been captured. The ES should apply consistent terminology in order to provide clarity to the reader about the basis for the assessment of likely significant effects arising from the Proposed Development.
- 3.3.6 Section 1.6 of the Scoping Report explains that the Design Manual for Roads and Bridges (DMRB) will be used as the main source of assessment guidance for the ES. Use of the DMRB is considered to be appropriate given the nature of the Proposed Development. DMRB describes assessment as being 'Simple' or 'Detailed'. Use of the term 'Detailed level assessment' is considered to be unhelpful in the absence of further methodological description, since the Detailed level assessment methods in DMRB can include optional studies that may or may not be carried out. This creates uncertainty in the proposed methodological approach and requires further methodological justification to be provided within the ES.

Baseline Scenario

- 3.3.7 The ES should include a description of the baseline scenario with and without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.

Forecasting methods or evidence

- 3.3.8 The ES should contain the timescales upon which the surveys which underpin the technical assessments have been based. For clarity, this information should be provided either in the introductory chapters of the ES (with confirmation that these timescales apply to all chapters), or in each aspect chapter.
- 3.3.9 The methodology set out in section 1.6 of the Scoping Report is noted. The Inspectorate expects the ES to include a chapter setting out the overarching methodology for the ES, which clearly states which effects are 'significant' and 'non-significant' for the purposes of the EIA. Any departure from that methodology should be described in individual aspect assessment chapters.
- 3.3.10 The ES should include details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.

Residues and emissions

- 3.3.11 The EIA Regulations require an estimate, by type and quantity, of expected residues and emissions. Specific reference should be made to water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases, where relevant. This information should be provided in a clear and consistent fashion and may be integrated into the relevant aspect assessments.

Mitigation

- 3.3.12 Any mitigation relied upon for the purposes of the assessment should be explained in detail within the ES. The likely efficacy of the mitigation proposed should be explained with reference to residual effects. The ES should also address how any mitigation proposed is secured, ideally with reference to specific DCO requirements or other legally binding agreements.

Vulnerability of the development to risks of major accidents and/or disasters

- 3.3.13 Schedule 4 of the EIA Regulations requires a description of the potential vulnerability of the Proposed Development to risks of major accidents and/or disasters, including vulnerability to climate change, which are relevant to the Proposed Development.
- 3.3.14 The Inspectorate notes that potential risks are proposed to be addressed within aspects to the ES and considers that a standalone chapter to address this aspect is not required.

Transboundary effects

- 3.3.15 Schedule 4 Part 5 of the EIA Regulations requires a description of the likely significant transboundary effects to be provided in an ES. The Inspectorate notes that the Applicant has indicated in Scoping Report paragraph 1.10.4 that the Proposed Development is not likely to have significant impacts on another European Economic Area (EEA) State.
- 3.3.16 Regulation 32 of the EIA Regulations inter alia requires the Inspectorate to publicise a DCO application on behalf of the SoS if it is of the view that the proposal is likely to have significant effects on the environment of another EEA state, and where relevant, to consult with the EEA state affected.
- 3.3.17 The Inspectorate considers that where Regulation 32 applies, this is likely to have implications for the examination of a DCO application. The Inspectorate recommends that the ES should identify whether the Proposed Development has the potential for significant transboundary impacts and if so, what these are and which EEA States would be affected.

- 3.3.18 Based on the current information presented within the Scoping Report, the Inspectorate agrees with this conclusion and considers that further assessment of transboundary effects can be scoped out.
- 3.3.19 The Inspectorate notes that paragraph 1.10.4 of the Scoping Report refers to the lack of interaction between the study area and other EEA States as the basis for not identifying transboundary effects. The Inspectorate considers that the extent of the impact and effect rather than the extent of the study area should be the primary basis for this conclusion.

A reference list

- 3.3.20 A reference list detailing the sources used for the descriptions and assessments must be included in the ES.

3.4 Confidential Information

- 3.4.1 In some circumstances it will be appropriate for information to be kept confidential. In particular, this may relate to information about the presence and locations of rare or sensitive species such as badgers, rare birds and plants where disturbance, damage, persecution or commercial exploitation may result from publication of the information. Where documents are intended to remain confidential the Applicant should provide these as separate paper and electronic documents with their confidential nature clearly indicated in the title, and watermarked as such on each page. The information should not be incorporated within other documents that are intended for publication or which the Inspectorate would be required to disclose under the Environmental Information Regulations 2014.

4. ASPECT BASED SCOPING TABLES

4.1 Air Quality

(Scoping Report chapter 5)

The study area applied in the Scoping Report is effects on human health receptors and ecologically designated sites 'within 200m of roads that are expected to be affected by the Proposed Scheme'. There are no Air Quality Management Areas within the study area.

The Scoping Report includes baseline data from Broadland District Council and scheme specific monitoring is being undertaken at four locations. In three out of the four locations ambient air quality is well below the air quality objective for mean annual NO₂ emissions, although particulate matter (PM₁₀) is closer to the air quality objective and limit value for that pollutant. The Applicant proposes to assess local and regional air quality emissions in accordance with DMRB Volume 11 Section 2 Part 4 (HA204/08); Section 3 Part 1 (HA207/07) and associated Interim Advice Notes (IAN) – 170/12v3; 174/13; and 185/15. A qualitative construction assessment and a Simple level operational assessment are proposed.

The Scoping Report identifies the likely impacts from construction phase activities including dust and vehicle emissions; and changes in operational vehicle emissions due to increased vehicle speeds and the change in the A47 road alignment.

The proposed scope of pollutants to be assessed is nitrogen oxides (NO_x), NO₂, PM₁₀ and carbon dioxide (CO₂). No other pollutants are scoped into the assessment.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
1		Limit of scope to NO _x , NO ₂ , PM ₁₀ and CO ₂ .	<p>The Inspectorate considers that the ES should also include an assessment of impacts associated with all relevant pollutants under the EU ambient air quality directive including increases in PM_{2.5} resulting from the Proposed Development where relevant.</p> <p>In determining significance, the assessment should take into account performance against relevant target/limit values.</p>
	Para	Other points	Inspectorate's comments
2	5.3.5	NO ₂ diffusion tube monitoring survey	Paragraph 5.3.5 states that further monitoring data 'should be available for the ES'. The Inspectorate considers that

			monitoring data used to inform the ES should include appropriate winter and summer survey data.
3	5.8.1	DMRB HA207/07 for assessment of construction effects.	The ES should justify the continued application of DMRB HA207/07 for assessment of construction air quality effects, when more up to date guidance is available, such as the Institute for Air Quality Management (IAQM) "Guidance on the assessment of dust from demolition and construction (2014)".
4	5.9.2	If construction traffic is predicted to last longer than 6 months.	The Scoping Report indicates that there will be a qualitative assessment of impacts from construction traffic emissions if construction lasts longer than 6 months. This approach is broadly consistent with DMRB HA207/07 which states that traffic management measures and the effect of the additional construction vehicles should also be assessed as an additional scenario. The Inspectorate notes the proposed 16 month construction programme mentioned elsewhere in the Scoping Report and agrees this assessment should be carried out. The ES should clearly present this information and assess impacts that may result in likely significant effects.

4.2 Cultural Heritage

(Scoping Report chapter 6)

The proposed study area applied in the Scoping Report is 1km surrounding the Proposed Development. A number of Listed Buildings including churches lie within the study area. Designated and non-designated heritage assets are presented in Table 6.1 of the Scoping Report.

The Scoping Report makes reference to desk study data being obtained from Historic England and local authority records. The assessment would follow various guidance and standards including the DMRB HA 208/07³, Historic England guidance on historic environment and the setting of heritage assets⁴, and "Standard and Guidance from the Chartered Institute for Archaeologists" although the specific standards/guidance are not stated (paragraph 6.5.1).

The Scoping Report identifies potential impacts from construction on archaeological remains and on a non-designated historic park, as well as impacts from the increase in noise on the setting of sensitive receptors. Potential impacts from operation on the setting of designated heritage assets are also identified.

No matters have been proposed to be scoped out of the assessment.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
5	n/a	None identified.	n/a
	Para	Other points	Inspectorate's comments
6	6.2.1	Study area	<p>The ES should provide a robust justification as to why the 1km study area is appropriate and sufficient to capture all heritage assets which could experience impacts including impacts on setting – taking into account for example, visual intrusion and or increased noise emissions.</p> <p>The Inspectorate notes that chapter 6 of the Scoping Report refers to a Zone of Visual Influence prepared for the landscape</p>

³ DMRB Volume 11, Section 3, Part 2 'Cultural Heritage' (HA 208/07)

⁴ Historic England (2008) conservation Principles: Policies and Guidance; Historic England (2015) Historic Environment Good Practice Advice in Planning Note 2 (GPA2) – Managing Significance in Decision-taking in the Historic Environment; Historic England (2015) Historic Environment Good Practice Advice in Planning Note 3 (GPA3) – The Setting of Heritage Assets.

			<p>and visual impact assessment, whereas the landscape and visual assessment refers to a Zone of Theoretical Visibility (ZTV). The ES should ensure that the approach to establishing the study area (based on the extent of impact) is clearly and consistently presented.</p> <p>Paragraph 6.2.2 states that a Zone of Visual Influence will be used to identify any heritage assets that would be affected by the construction of the Proposed Development. The Inspectorate also considers that the ZTV (or equivalent) should also be used to identify heritage assets affected during operation of the Proposed Development.</p> <p>Effort should be made to seek agreement with relevant consultees regarding the appropriate study area.</p>
7	6.5.1	Guidance	<p>The Inspectorate notes the potential for impacts on buried archaeological resources. Where relevant the ES should take into account guidance contained in Historic England's guidance document 'Preserving Archaeological Remains'⁵.</p> <p>The ES should explain which of the Chartered Institute for Archaeologists standards and guidance have been used to inform the ES.</p> <p>The Inspectorate draws the Applicant's attention to the revised Historic England Good Practice Advice note 3, which was updated December 2017⁶.</p>
8	6.8.1- 6.9.6	Proposed methodology	<p>The Scoping Report states that a detailed assessment will be undertaken. However, the description of the detailed assessment in DMRB HA208/07 includes a variety of options applicable to the detailed assessment approach. Consequently it is unclear what the precise scope of the</p>

⁵ Preserving Archaeological Remains: Decision taking for sites under development (Historic England, 2016)

⁶ [Good Practice Advice on Planning Note 3 - The Setting of Heritage Assets](#) (Historic England, 2017)

			<p>assessment will be.</p> <p>The ES should include both a desk-based assessment and an archaeological field evaluation (where relevant). The scope of assessment should be confirmed with Broadland District Council Conservation Officer and archaeological staff at Norfolk County Council as appropriate.</p> <p>The Inspectorate expects that in addition to the matrix assessment approach, the ES should include a narrative to explain and justify the assessment of setting and the significance of heritage assets.</p>
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4.3 Landscape

(Scoping Report chapter 7)

The proposed study area applied in the Scoping Report is 1km surrounding the Proposed Development. The justification for this is due to “the containing nature of the local topography and the existing vegetation cover” (paragraph 7.2.1). Paragraph 7.2.1 also states that this area will be extended for any receptors sited beyond 1km and which have the potential to experience significant effects.

The assessment would follow the DMRB Part 5 on Landscape Effects⁷ as well as guidance for a detailed assessment from IAN 135/10⁸, the Guidelines for Landscape and Visual Impact Assessment (GLVIA)⁹, and Natural England’s guidance on landscape character assessments¹⁰.

The Scoping Report identifies the potential for impacts to landscape character and visual amenity during both the construction and operational phases. These are summarised in Table 7.1.

No matters have been proposed to be scoped out of the assessment.

ID	Para	Applicant’s proposed matters to scope out	Inspectorate’s comments
9	n/a	None identified.	n/a
	Para	Other points	Inspectorate’s comments
10	7.2.1	Study area	The Proposed Development would introduce a new road and new bridge structures into a generally flat, rural landscape setting. The Inspectorate therefore considers that landscape and visual impacts could occur beyond 1km from the application site and that a more detailed understanding of the extent of impacts should be made with reference to the proposed ZTV (or equivalent). The study areas for the landscape assessment and the visual assessment in the ES should be justified and effort should be made to agree these with relevant consultees.

⁷ DMRB Volume 11, Section 3, Part 5 Landscape Effects

⁸ IAN 135/10 Landscape and Visual Effects Assessment

⁹ GLVIA, 3rd Edition: Landscape Institute of Environmental Management and Assessment (2013)

¹⁰ Natural England (2014) An Approach to Landscape Character Assessments

			<p>The Inspectorate notes the intention in paragraph 7.6.2 of the Scoping Report to consult on the location of viewpoints, presentational material (photomontages), and the methodology of the assessment generally. The ES should explain how such consultation has informed decisions taken in regards to the assessment.</p>
11	7.9.3	Zone of Theoretical Visibility (ZTV)	<p>The Scoping Report states that the ZTV will be established based on criteria including an observer height of 1.6m above ground level. However, the Inspectorate notes that DMRB recommends that the observer height is 1.8m above ground level. The ES should clearly explain the approach taken to the assessment and any assumptions made or deviation from recognised guidance should be identified and justified.</p>
12	7.7.1 – 7.7.9	Potential effects	<p>To support a robust assessment of likely significant effects, the ES should include plans and visualisations of the Proposed Development which highlight the specific elements that would impact on landscape character and be visually prominent to visual and amenity receptors (for example the new dual carriageway, structures, bridges, cuttings and embankments). Cross sections and photomontages should be included in the ES for this purpose.</p>
13	7.7.4	Mitigation	<p>Mitigation planting and landscape mitigation are referred to in order to reduce the operational effects of the Proposed Development. The Applicant should discuss and make effort to agree the planting specification/species mix with the relevant local planning authorities and have regard to the East Broadland Green Infrastructure Project Plan. An appropriate aftercare period for the proposed landscaping should also be discussed and ideally agreed. It should be clear how the proposed landscaping would mitigate the effects to landscape and visual receptors, and how these effects would change as the proposed planting matures. Interactions with other ES aspects, for example beneficial impacts on local ecology, should be assessed and</p>

			explained.
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4.4 Biodiversity

(Scoping Report chapter 8)

Table 8.1 sets out the study area applied to assess the potential significant effects on ecological receptors. The area varies in spatial extent depending on the ecological receptor.

Baseline conditions were identified using a combination of desk study and field survey, including an Extended Phase 1 Habitat Survey of publicly accessible land. Phase 2 surveys have also been carried out for some species and are ongoing at time of scoping. The need for further surveys and assessment is identified in Scoping Report chapter 8.8. The Applicant makes reference to DMRB Volume 11, Section 3, Part 4 Ecology and Nature Conservation guidance, IAN 130/10¹¹, and CIEEM guidance¹² to assess the potential for significant adverse ecological effects that may arise from the Proposed Development.

The Scoping Report identifies impacts during construction and operation in section 8.7 which includes:

- loss, fragmentation and degradation of habitats;
- mortality/injury of protected and/or priority species;
- disturbance from noise, vibration, light, and accidental incursion; and
- changes in hydrology and pollution of habitats.

The Inspectorate has provided comments below on matters that the Applicant proposes to scope out of the ES.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
14	8.3.23 Table 8.1	Paston Great Barn – bat designation	The Inspectorate does not consider that sufficient justification has been provided to scope out effects on Paston Great Barn Special Area of Conservation (SAC), given that the receptor lies within 30km of the Proposed Development, which is within the proposed study bat area boundary set out in Table 8.1. Further justification based on survey and/or desk study information and consultation with relevant nature

¹¹ HA (2010) IAN 130/10 Ecology and Nature Conservation: Criteria for Impact Assessment

¹² Chartered Institute of Ecology and Environmental Management (CIEEM) (2016) Guidelines for Ecological Impact Assessment in the UK

			conservation bodies is required.
	Para	Other points	Inspectorate's comments
15	Table 8.3	Location of breeding bird surveys	Table 8.3 states that breeding bird surveys will be carried out "within the footprint of the Proposed Scheme, plus a 100m buffer". However, the Inspectorate notes that barn owl populations within 1.5km of road boundaries are at risk of collision mortality. If barn owls are likely to be present, within a 1.5km study area then the assessment should include consideration of impacts to this species. The Applicant should liaise with Natural England to ensure the assessment appropriately addresses the collision risk to barn owls.
16	8.4.2	Field surveys - access	The Scoping Report states that ecological surveys undertaken to date were confined to locations where landowner permission was obtained. The Applicant should ensure that the ES is accompanied by an appropriate and comprehensive set of ecological surveys sufficient to inform the assessment of likely significant effects.
17	Table 8.3 & 8.3.20	Field surveys – non-native invasive species	The Scoping Report provides contradictory statements regarding the likely presence or absence of invasive species (refer to paragraph 8.3.20 and Table 8.3). The Inspectorate notes that Winter Heliotrope (<i>Petasites fragrans</i>) has been identified as being present in Burlingham and this is also referenced by the Environment Agency. The ES must assess the potential impacts from non-native invasive species and where necessary set out proposed mitigation to prevent the spread of this species.
18	8.7.16-18	Potential effects	The Scoping Report only includes high level information about potential increased badger mortality during construction. Detailed information regarding the risk of mortality or injury to badgers or a firm commitment to assess this impact during operation is not mentioned. The Inspectorate considers that where significant effects are likely to occur during construction or operation this should be assessed in the ES. The assessment should

			include consideration of the risk of other animal collisions (eg deer/fox) and hazards to road users arising from such collisions, as well as the role that newly created green infrastructure can play in managing this risk.
19	8.7.17	Potential mitigation measures and enhancement	The Inspectorate recommends that any proposed mitigation and monitoring measures are agreed as far as possible with relevant consultees including Natural England and the local planning authorities. The ES should detail all proposed mitigation measures and demonstrate how they will be secured.

4.5 Geology and Soils

(Scoping Report chapter 9)

The study area for this assessment 'considers all locations where physical works and ground disturbances would take place, and in addition extends to 1km beyond this in order to identify any past pollution incidents which may have affected soil'.

The Applicant proposes to undertake a Simple level assessment which will be compliant with guidance and legislation including the DMRB volume 11 Section 3 Part 11, the Environmental Protection Act 1990 (as amended by the Environment Act 1995) and the Environmental Protection (duty of Care) Regulations 1991 (as amended 2003). The assessment methodology to determine the criteria for the sensitivity of receptors is outlined within Table 9.3, the criteria for the magnitude of impact is set out in Table 9.4 and the criteria for determining the significance of effects is presented within Table 9.5.

Potential impacts identified during construction include directly damaging the underlying geological features and causing land contamination. A 'very high risk' of Unexploded Ordnance (UXO) within the study area is identified. No potential impacts have been identified during the Proposed Development's operational phase.

The Inspectorate has provided comments below on matters that the Applicant proposes to scope out of the ES.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
20	9.8.2	Operational Effects	The Applicant has not provided sufficient information to justify scoping out the assessment of significant effects during operation. For example, the Scoping Report explains that the need for infiltration drainage has not yet been determined. Whether or not this method is deployed will have a bearing on the likely impacts to geology and soils. The ES should provide an assessment of all relevant likely significant effects. If evidence becomes available that justifies scoping this matter from the ES e.g. following detailed drainage design, this should be explained in the ES.
21	9.4.9	Assumptions and Limitations	The Scoping Report identifies a very high risk of UXO within the study area but suggests that an assessment should be excluded for the purposes of EIA. The ES should consider the potential risks

			associated with the identification and disposal of UXO within the proposed construction footprint.
	Para	Other points	Inspectorate's comments
22	9.2.1	Study Area	<p>Although the Scoping report states that the study area will include a 1km boundary from the Proposed Development this has yet been clearly defined because areas 'where physical works and ground disturbances would take place' are not precisely defined.</p> <p>Within the ES the study area should be clearly defined, justified and reflect the anticipated extent of potential impacts.</p>
23	Table 9.1	Baseline Data	Table 9.1 of the Scoping Report uses chainages to identify the locations of changes in superficial deposits along the route. No chainage sections or maps are provided within the Scoping Report. The ES should include a clear description along with maps/ figures to identify the location of these features.
24	Table 9.1	Baseline Data	The Applicant should note that the Environment Agency has revised the aquifer designation of the Lowestoft Formation from 'Unproductive' to 'Secondary (undifferentiated)'. The ES should be amended to reflect this change in designation.
25	9.6.1	Consultation	The Inspectorate notes the consultation response from Norfolk County Council that the Proposed Development is situated within a mineral safeguarding area. The extent to which the Proposed Development would impact mineral reserves should be assessed in the ES. The Applicant should seek to agree the approach to the assessment with relevant consultees including Norfolk County Council.
26	9.7.4	Potential Effects, Including Monitoring and Mitigation Measures	The Applicant should ensure that findings from the remediation strategy are included within the ES along with a strategy that the options to manage, remove/dispose of or treat contaminated material. The strategy should include the regulatory requirements for managing previously unknown contamination which may be encountered during construction of the Proposed Development.

27	Table 9.4	Scale and Magnitude of Impact for Geological/ Soil Receptors	The Inspectorate considers that an assessment of any likely significant effects associated with changes to groundwater flow resulting from the Proposed Development should be included within the ES. The Applicant should discuss and agree the approach the assessment with relevant consultees.
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4.6 Materials

(Scoping Report chapter 10)

There is currently no guidance available that defines a study area for materials and waste and therefore the assessment study area has been 'determined through professional judgement by the influence of the Proposed Development, rather than through a set geographical location'.

The Applicant proposes to undertake a Simple level assessment will be undertaken utilising the guidance listed in section 10.5. Professional judgement will be used to provide the methodology's assessment criteria.

Potential Impacts identified during construction include direct impacts from importing materials and transporting materials and waste. No potential impacts have been identified to occur during the operational phase.

The Inspectorate has provided comments below on matters that the Applicant proposes to scope out of the ES.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
28	10.8.2	Operational Effects	The Inspectorate agrees that significant effects during operation are unlikely and this matter can be scoped out of the ES. The Inspectorate acknowledges that the Proposed Development will make only 'minimal requirements for materials and generation of waste' during operation.
	Para	Other points	Inspectorate's comments
29	10.2.1	Study Area	The Scoping Report has not clearly defined or justified the study area. The Scoping Report states that the study area will be determined by 'the influence of the Proposed Scheme' but a description of how the 'influence of the Proposed Scheme' will be determined has not been included. The ES should include a clearly defined study area that is appropriate in having regard to the anticipated extent of potential impacts.
30	10.3	Existing and Baseline Knowledge	A future baseline from the first year of construction should be included within the ES.
31	10.3.3	Existing and Baseline Knowledge	The ES should contain the location, the capacity and the type of the waste

			infrastructure receptors in order to comprehensively assess the effects the generation of waste may have on the environment.
32	10.5	Guidance and Best Practise	The Scoping Report indicates that the ES will be undertaken on the basis of guidance contained in DMRB. The materials aspect chapter should have regard to the methods contained within the Interim Advice Note (IAN) 153/11.
33	10.7.2	Potential Effects, Including Monitoring and Mitigation Measures	<p>The Scoping Report states that specific quantities of materials and waste will be estimated at a later stage as the design progresses. The Applicant should include an estimation of the quantity of construction materials and waste arising within the ES.</p> <p>The Applicant should note that the packaging of the construction materials should also be included within the estimate of waste arisings.</p>
34	10.9	Proposed Methodology Including Significance	The Inspectorate notes that 'professional judgement will be used to provide an assessment of effects' but makes no reference to a methodology. The ES should include a clear description of the methodology used to undertake the assessment.

4.7 Noise and Vibration

(Scoping Report chapter 11)

The study area for this assessment is defined as being within '1km of the physical works associated with the Proposed Scheme' for both construction and operational effects. For road traffic effects occurring outside of the 1km study area, the methodology extends to those receptors experiencing an increase or decrease of 1dB $L_{A10,18\text{hour}}$ upon opening or 3dB $L_{A10,18\text{hour}}$ in the long term. Two Noise Important Areas (NIA) are located in proximity to the scheme.

The Applicant proposes to assess construction noise and vibration effects using BS5228:2009+A1:2014 part 1 (5dB change method) and part 2. A Detailed level assessment is proposed for operational effects based on DMRB Volume 11 Section 3 Part 7 HD213/11. Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL) criteria are set out for construction noise and vibration and operational noise but not for operational vibration.

Potential impacts identified during construction include direct, temporary impacts on the noise baseline for noise sensitive receptors and during operation due to the change in road alignment and traffic speeds.

The Inspectorate has provided comments below on matters that the Applicant proposes to scope out of the ES.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
35	n/a	n/a	n/a
	Para	Other points	Inspectorate's comments
36	Table 11.2	Traffic induced vibration	Paragraphs 11.9.12-13 of the Scoping Report imply that traffic vibration will be assessed, however no LOAEL or SOAEL criteria are provided in respect of operational vibration in Table 11.2. Potential vibration effects should be assessed and appropriate criteria set out.
37	11.3.4	NIA are identified in Figure A.1	Two NIA are identified in Figure B.2. The Inspectorate was not able to identify the other two NIA on the figures presented. The ES should clearly set out this information.
38	11.3.5	Use of $L_{A10,18\text{hours}}$ and $L_{A10,3\text{hours}}$ to describe	For ease of understanding the ES should use the same noise indices/time periods to

		operational road traffic data range.	describe road traffic noise levels or provide conversion factors within the text.
39	11.3.8	Monitoring 'broadly in accordance with the Calculation of Road Traffic Noise CRTN methodology'	The Applicant's ES should avoid use of terms such as 'broadly in accordance' which create uncertainty in the methodology adopted. Any departures from the stated methodology, in particular deviations from recognised practice should be identified, explained and justified.
40	Table 11.2	Operational vibration	The ES should assess impacts from operational vibration where significant effects are likely to occur.

4.8 People and Communities

(Scoping Report chapter 12)

The spatial scope applied for the assessments in this aspect is set out in section 12.2 of the Scoping Report. For the assessment of impacts on non-motorised users, motorised travellers driver stress, and amenity the study area is proposed to be 600m from "the Proposed Scheme". The study area for land, property, businesses, community facilities and severance is "within 250m of the Proposed Scheme" (referred to as the local impact area). A wider impact area comprising the district of Broadland is applied for the assessment of broader effects on the local economy. Cumulative effects are proposed to be considered at a County level.

The assessment methodology will follow IAN 125/15 and DMRB Volume 11 Section 3 to assess the impacts of the Proposed Development on people and communities. It will combine the Non-Motorised User and Community Effects components of Part 8, Part 9 for impacts on Vehicular Travellers, and Part 6 for Land Use impacts.

The Scoping Report identifies potential impacts on non-motorised users from the impacts to footpaths; potential impacts on driver stress for motorised users; impacts on community severance and community land and facilities; and impacts on land and property including demolition and land-take.

The Inspectorate has provided comments on matters that the Applicant proposes to scope out of the ES.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
41	12.10.1 1	Agricultural land-take (operation)	The Inspectorate considers that the Proposed Development has the potential to impact agricultural operations due to land take or severance of land parcels. The Inspectorate considers that this matter should be assessed in the ES if significant effects are likely to occur.
	Para	Other points	Inspectorate's comments
42	12.2.1- 12.2.7	Study area	The ES should include a clear justification in support of the study areas that are based on professional judgement. The ES should also ensure they are depicted on corresponding figures to aid understanding. The Inspectorate notes that DMRB Volume

			11, Section 3, Part 8, Para 2.2, states that community facilities “and their catchment areas” should be addressed by the assessment. The ES should clearly explain how this requirement has been taken into account in the selection of appropriate study areas.
43	Table 12.1	Baseline information	Descriptions of the baseline environment and receptors such as public rights of way are not clearly defined in the Scoping Report and the accompanying figures. These features should be described in the ES and accompanying figures should be labelled to allow for easy cross-reference with the textual description.
44	Table 12.1	Baseline information	No baseline information is provided in relation to the assessment of community severance. The ES must include a description of the baseline conditions, against which the Proposed Development can be assessed.
45	12.9.11	Baseline information – Agricultural land	<p>Agricultural land classification (ALC) surveys are proposed, which would follow the Ministry of Agriculture, Fisheries and Food (MAFF) guidelines. The Inspectorate advises that the guidance within Natural England’s TIN049¹³ should also be followed.</p> <p>The ES should quantify the temporary and permanent agricultural land-take by ALC grade and assess any likely significant effects in this respect.</p>
46	12.7.1-12.7.18	Construction impacts	Adverse impacts from construction (eg on community severance, land-take, etc) have been identified as temporary. The ES should explain the duration of impacts and what constitutes a temporary impact.
47	12.10.1 - 12.10.12	Level of assessment	The Scoping Report proposes to assess a number of matters using a DMRB Simple Level approach in the EIA. The ES should include a clear justification for why this

¹³ Natural England Technical Information Note TIN049: Agricultural Land Classification: protecting the best and most versatile agricultural land (2012)

			level of assessment is sufficient.
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4.9 Road Drainage and the Water Environment

(Scoping Report chapter 13)

The study area comprises 'a number of water features within a 1km area around the Proposed Scheme' and will extend where there are features that may be affected by pollutants transported downstream.

Dependent on the results from the site surveys and investigations either a Simple or Detailed level assessment will be undertaken utilising guidance listed within section 13.5. The Applicant states that a Water Framework Directive (WFD) Assessment will be required.

The assessment methodology is outlined within Table 13.2 which sets out the criteria for the importance of receptors, Table 13.3 outlines the criteria for the magnitude of impact and Table 13.4 presents the criteria for determining significant effects.

The potential impacts identified include the contamination of surface and ground water, the creation of contamination pathways, impacting the water table, adversely affecting aquatic ecology and increasing the risk of flooding.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
48	N/A	N/A	The Applicant has not proposed to scope any matters out of the assessment.
	Para	Other points	Inspectorate's comments
49	13.2	Study Area	<p>The Applicant states that a 'number of water features within 1km' and features that may be impacted downstream will be included within the assessment 'as appropriate'; but has not stated which water features will be included or defined which features are 'appropriate'.</p> <p>Within the ES the study area should be clearly defined, justified and reflect the anticipated extent of potential impacts.</p>
50	13.2.1	Study Area	The Inspectorate notes that the Applicant has not set out a specific study area for the assessment of effects on groundwater. This should be clearly set out in the ES and reflect the anticipated extent of potential impacts.
51	13.4.2	Assumptions and Limitations	The Inspectorate notes that there are currently no details of the drainage design. This information is required to inform the

			assessment of effects on water features, soils and ecological receptors.
	13.6.3	Consultation	The Scoping Report incorrectly references consultation with organisations listed in Scoping Report paragraph 13.6.2 rather than those organisations listed in 13.6.1. For the avoidance of doubt, organisations listed in 13.6.1 of the Scoping Report should be consulted.
52	13.7.6	Potential Effects, Including Monitoring and Mitigation Measures	The Applicant states that spills/ leakages of contaminants will be mitigated through a Construction Environmental Management Plan (CEMP). The CEMP should include specific details of proposed mitigation measures including any monitoring.
53	13.8.5	Groundwater level	The assessment proposes to assess groundwater level but does not set out a specific approach to groundwater level monitoring. The ES should set out this information. The Inspectorate considers that groundwater levels are required to inform the assessment of both construction and operational impacts.
54	Table 13.4	Definitions of Overall Significance of Effect	The surface water examples found within the adverse effect rows do not correspond to the definitions provided within HD45/09 Annex IV Table A4.3 as the calculated risk of pollution from spillages is not included. Within the ES, this Table should include the full definitions provided within HD45/09 Annex IV Table A4.3.
55	13.9.2	Proposed methods	This paragraph provides a set of methodologies that may be adopted 'if required'. The Applicant should ensure that the scope of assessment is sufficient to encompass the extent of the impacts and the likely significant effects of the Proposed Development.
56	13.10.3	Highways England, 2016a; 2016b references	Paragraph 13.101.3 states that flood risk mitigation will be designed in accordance with the two references highlighted. The references are not set out in the reference list, therefore it is uncertain what measures will be considered. The ES reference list should include all reference sources relied upon in the ES.

4.10 Climate

(Scoping Report chapter 14)

The proposed study area for the climate assessment is the 'GHG emission potential throughout the lifecycle of the Proposed Scheme for both construction and operation'. Operation is considered to be the design life of the Proposed Development. The proposed scope identifies interrelationships between the climate assessment and all other aspect chapters.

There is no industry standard climate change assessment (mitigation or adaptation) method for the assessment in the ES. The Applicant proposes to use a qualitative assessment in line with DMRB Volume 11 Section 2 Part 5, incorporating a PAS2080 compliant lifecycle assessment tool. In addition a range of guidance documents have been referenced in section 14.6 of the Scoping Report.

The Scoping Report identifies that construction effects will relate to the duration of construction, use of construction materials and plant and vehicle emissions. During operation, the Scoping Report identifies the potential for increased GHG emissions due to vehicle distribution and speed increases and increased maintenance requirements due to climate change effects, which also has the potential to increase the operational GHG emissions.

No matters have been proposed to be scoped out of the assessment.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
57	n/a	n/a	n/a
	Para	Other points	Inspectorate's comments
58	14.10.2	A conclusion about whether this level of assessment is sufficient to understand the effects of the project or whether further assessment is necessary.	As with other chapters, the Scoping Report places reliance on a potential further assessment. There is therefore uncertainty regarding the precise scope to be proposed in the ES. The ES should clearly define and explain the criteria/methodology that has been used to determine the assessment of likely significant effects.
59	14.4.4	UKCP09	As set out in the NN NPS the applicant should take into account the potential impacts of climate change using the latest UK Climate Projections, this should include the anticipated UKCP18 projections where appropriate.

4.11 Combined and Cumulative Effects

(Scoping Report chapter 15)

The Applicant's combined effects assessment area is based on the aspect specific study areas. The cumulative effects assessment area is proposed to be based on a 2km Zone of Influence (Zol).

The proposed combined effects assessment methodology is DMRB Volume 11, Section 2 Part 5 and the proposed cumulative effects assessment methodology follows the Inspectorate's Advice Note 17. Major developments for cumulative assessment have not been confirmed at this stage.

The Scoping Report identifies that combined and cumulative effects may arise during construction and operation with specific reference to cumulative effects on habitats, protected species, agricultural land, noise and air quality.

No matters have been proposed to be scoped out of the assessment.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
60	n/a	n/a	n/a
	Para	Other points	Inspectorate's comments
61	15.2.2 15.3.2	2km Zol and proposed major developments for consideration	<p>Further justification should be provided for the 2km Zol once the spatial extent of the likely significant effects at an aspect level is fully understood eg following preparation of the ZVI and once the vertical heights of structures has been confirmed.</p> <p>The Applicant should give consideration to the sequential cumulative effects of other schemes occurring on the A47.</p>

5. INFORMATION SOURCES

5.1.1 The Inspectorate's National Infrastructure Planning website includes links to a range of advice regarding the making of applications and environmental procedures, these include:

- Pre-application prospectus¹⁴
- Planning Inspectorate advice notes¹⁵:
 - Advice Note Three: EIA Notification and Consultation;
 - Advice Note Four: Section 52: Obtaining information about interests in land (Planning Act 2008);
 - Advice Note Five: Section 53: Rights of Entry (Planning Act 2008);
 - Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements;
 - Advice Note Nine: Using the 'Rochdale Envelope';
 - Advice Note Ten: Habitat Regulations Assessment relevant to nationally significant infrastructure projects (includes discussion of Evidence Plan process);
 - Advice Note Twelve: Transboundary Impacts
 - Advice Note Seventeen: Cumulative Effects Assessment; and
 - Advice Note Eighteen: The Water Framework Directive.

5.1.2 Applicants are also advised to review the list of information required to be submitted within an application for Development as set out in The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (as amended).

¹⁴ The Planning Inspectorate's pre-application service for applicants. Available from: <https://infrastructure.planninginspectorate.gov.uk/application-process/pre-application-service-for-applicants/>

¹⁵ The Planning Inspectorate's series of advice notes in relation to the Planning Act 2008 process. Available from: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

TABLE A1: PRESCRIBED CONSULTATION BODIES¹⁶

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Health and Safety Executive	Health and Safety Executive
The National Health Service Commissioning Board	NHS England
The relevant Clinical Commissioning Group	North Norfolk Clinical Commissioning Group
Natural England	Natural England
The Historic Buildings and Monuments Commission for England	Historic England - East of England
The relevant fire and rescue authority	Norfolk Fire and Rescue Service
The relevant police and crime commissioner	Norfolk Police and Crime Commissioner
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Beighton Parish Council
	Blofield Parish Council
	Lingwood and Burlingham Parish Council
	Acle Parish Council
The Environment Agency	Environment Agency - East Anglia
The Civil Aviation Authority	Civil Aviation Authority
The Relevant Highways Authority	
The relevant strategic highways company	Highways England - East

¹⁶ Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) (the 'APFP Regulations')

SCHEDULE 1 DESCRIPTION	ORGANISATION
Public Health England, an executive agency of the Department of Health	Public Health England
Relevant statutory undertakers	See Table 2 below
The Crown Estate Commissioners	The Crown Estate
The Forestry Commission	Forestry Commission - East and East Midlands
The Secretary of State for Defence	Ministry of Defence

TABLE A2: RELEVANT STATUTORY UNDERTAKERS¹⁷

STATUTORY UNDERTAKER	ORGANISATION
The relevant Clinical Commissioning Group	North Norfolk Clinical Commissioning Group
The National Health Service Commissioning Board	NHS England
The relevant NHS Trust	East of England Ambulance Service NHS Trust
Railways	Highways England Historical Railways Estate
Civil Aviation Authority	Civil Aviation Authority
Licence Holder (Chapter 1 Of Part 1 Of Transport Act 2000)	NATS En-Route Safeguarding
Universal Service Provider	Royal Mail Group
Homes and Communities Agency	Homes and Communities Agency
The relevant Environment Agency	Environment Agency - East Anglia

¹⁷ 'Statutory Undertaker' is defined in the APFP Regulations as having the same meaning as in Section 127 of the Planning Act 2008 (as amended)

STATUTORY UNDERTAKER	ORGANISATION
The relevant water and sewage undertaker	Anglian Water
The relevant public gas transporter	Cadent Gas Limited
	Energetics Gas Limited
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Connections Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd
	Fulcrum Pipelines Limited
	GTC Pipelines Limited
	Independent Pipelines Limited
	Indigo Pipelines Limited
	Quadrant Pipelines Limited
	National Grid Gas Plc
	National Grid Gas Plc
	Scotland Gas Networks Plc
	Southern Gas Networks Plc
The relevant electricity distributor with CPO Powers	Energetics Electricity Limited
	Energy Assets Power Networks
	ESP Electricity Limited
	G2 Energy IDNO Limited
	Harlaxton Energy Networks Limited
	Independent Power Networks Limited
	Leep Electricity Networks Limited
	The Electricity Network Company

STATUTORY UNDERTAKER	ORGANISATION
	Limited
	UK Power Distribution Limited
	Utility Assets Limited
	Utility Distribution Networks Limited
	Eastern Power Networks Plc
	South Eastern Power Networks Plc
	UK Power Networks Limited
	National Grid Electricity Transmission Plc
	National Grid Electricity Transmission Plc

TABLE A3: SECTION 43 CONSULTEES (FOR THE PURPOSES OF SECTION 42(1)(B))¹⁸

LOCAL AUTHORITY ¹⁹
Norfolk County Council
Lincolnshire County Council
Cambridgeshire County Council
Suffolk County Council
The Broads Authority
Broadland District Council
North Norfolk District Council
Breckland District Council

¹⁸ Sections 43 and 42(B) of the PA2008

¹⁹ As defined in Section 43(3) of the PA2008

LOCAL AUTHORITY¹⁹
Norwich City Council
South Norfolk District Council
Great Yarmouth Borough Council

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

Consultation bodies who replied by the statutory deadline:

Anglian Water
Blofield Parish Council
Broadlands District Council
Broads Authority
Cadent Gas
Environment Agency
ESP GAS Group
Health and Safety Executive
Highways England
Historic England
Ministry of Defence
NATS (En Route) Public Limited Company
National Grid
Natural England
Norfolk County Council
North Norfolk District Council
Norwich City Council
Public Health England
Royal Mail
South Norfolk Council
Suffolk County Council
UK Power Networks



Richard Hunt
Senior EIA and Land Rights Advisor
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**Strategic Planning Team
Water Resources
Anglian Water Services Ltd**

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Tel (0345) 0265 458
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Our ref 00026295

Your ref TR010040-000004

2 March 2018

Dear Richard,

A47 Blofield to North Burlingham: Environmental Statement Scoping Report

Thank you for the opportunity to comment on the scoping report for the above project. Anglian Water is the water and sewerage undertaker for the above site. The following response is submitted on behalf of Anglian Water.

General comments

Anglian Water would welcome further discussions with Highways England prior to the submission of the Draft DCO for examination.

In particular it would be helpful if we could discuss the following issues:

- Wording of the Draft DCO including protective provisions specifically for the benefit of Anglian Water.
- Requirement for water and wastewater services.
- Impact of development on Anglian Water's assets and the need for mitigation.
- Pre-construction surveys.

13 Road Drainage and water environment

Reference is made to principal risks of flooding from the above project being fluvial flooding as set out in Table 13.1 of the report.



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Anglian Water Services Ltd
Lancaster House, Lancaster Way,
Ermine Business Park, Huntingdon,
Cambridgeshire. PE29 6YJ
Registered in England
No. 2366656.

an AWG Company

Anglian Water is responsible for managing the risks of flooding from surface water, foul water or combined water sewer systems. At this stage it is unclear whether there is a requirement for a connection(s) to the public sewerage network for the above site or as part of the construction phase. Consideration should be given to all potential sources of flooding including sewer flooding (where relevant) as part of the Environmental Statement and related Flood Risk Assessment.

Anglian Water would also wish to be consulted on the content of the proposed Flood Risk Assessment if a connection to the public sewerage network is required.

We welcome the intention to have further discussions with Anglian Water throughout the EIA process.

As set out in the EIA Scoping Report there are existing sewers within the boundary of the site. There are existing water mains and foul sewers in Anglian Water's ownership which potentially could be affected by the development. It is therefore suggested that the Environmental Statement should include reference to existing water mains and foul sewers in Anglian Water's ownership.

Maps of Anglian Water's assets are available to view at the following address:

<http://www.digdat.co.uk/>

Should you have any queries relating to this response please let me know.

Yours sincerely

A black rectangular box redacting the signature of Stewart Patience.

Stewart Patience

Spatial Planning Manager

From: [Blofield Parish Clerk](#)
To: [A47 Blofield to North Burlingham](#)
Subject: ES Consultation
Date: 14 February 2018 20:18:15
Attachments: [Signature Image.png](#)

Hi,

Please note that Blofield Parish Council discussed this consultation in their meeting on Monday and wish to make no comments on this consultation.

--

Kind Regards,

Sarah Osbaldeston
Blofield Parish Clerk
Email: Blofieldpc2@gmail.com
Tel: (01603) 270819
The Lodge, 48 Panxworth Road,
South Walsham, NR13 6DX



From: [Nigel Harriss](#)
To: [A47 Blofield to North Burlingham](#)
Subject: FAO Richard Hunt - Application by Highways England (the Applicant) for an Order granting Development Consent for the A47 Blofield to North Burlingham (the Proposed Development)
Date: 15 February 2018 14:49:28
Attachments: [East Broadland GI Project Plan low res.pdf](#)

Thank you for the opportunity to comment on the A47 Blofield to North Burlingham - EIA Scoping Notification and Consultation.

Two key themes arise for me –

- Decent Pedestrian / cycle access seems to be lacking – will there be any dedicated facilities on the bridge crossing at the eastern end of the A47 between north side and south side? Dell Corner Lane and Lingwood Road are used as crossing points of the current single carriageway stretch of the A47 to get from north to south and vice versa by both pedestrians and cyclists. The same applies to Main Road and Lingwood Lane and I would ask that all these matters be considered.
- Green Infrastructure link (e.g. green bridges/tunnels etc.). There is clear evidence of animal deaths etc. along the single carriageway stretch of the A47 as deer; foxes; rodents; etc. cross the road in both directions accessing farmland and woodland for hunting/breeding etc. This also represents a hazard to road users. I would ask that this be considered also.

In this respect the A47 is a current factor in the severance of communities and green infrastructure and a constraint to their accessibility and linkages. Please have regard to the East Broadland Green Infrastructure Project Plan [copy attached] and the role in which the planned road improvements could provide an opportunity to maximise crossing points and linkages between north and south of the A47.

Regards

Nigel Harriss
Area Planning Manager (East)
Broadland District Council


Tel: 01603 430529
www.broadland.gov.uk
nigel.harriss@broadland.gov.uk

Planning Application Fees are increasing on Wednesday 17 January 2018 by an average of 20%. The new fees will apply to all applications received on or after this date.

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A photograph of a dirt path winding through a dense forest with tall trees and sunlight filtering through the leaves.

East Broadland Green Infrastructure Project Plan



Report assembled by Norfolk County Council Environment
Team on behalf of Broadland District Council.

December 2015

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1. Introduction

1.1 What is Green Infrastructure?

Green Infrastructure is a term that is commonplace in the planning and conservation policy environment, however, due to the multiplicity of actors with various backgrounds using the term, it has come to mean different things to different people. The Joint Core Strategy for Broadland, Norwich and South Norfolk (2014:185) defines Green Infrastructure as:

“Green spaces and interconnecting green corridors in urban areas, the countryside in and around towns and rural settlements, and in the wider countryside. It includes natural green spaces colonised by plants and animals and dominated by natural processes and man-made managed green spaces such as areas used for outdoor sport and recreation including public and private open space, allotments, urban parks and designed historic landscapes as well as their many interconnections like footpaths, cycleways, green corridors and waterways.”

This is the definition used throughout this plan, with particular attention to the multifunctional ways in which green spaces and linkages deliver benefits for the natural environment, local communities and public more widely.

1.2 Background

This Green Infrastructure (GI) study and project plan focuses on the East Broadland area, primarily between Great Plumstead and Acle and the surrounding settlements within the Broadland District Boundary (See Figures 1 for plan area). This plan was compiled by Norfolk County Council on behalf of Broadland District Council to support the delivery of potential GI projects for the short-, medium- and long-term.

“The planned level of housing growth is required to address housing need and support the growth potential of the local economy” (GNDP, 2014).

To address the existing and growing requirements for housing in the Norfolk area, in particular the Norwich Policy Area (NPA), the 2026 Housing Commitment for the Broadland District area agreed by the Greater Norwich Development Partnership (GNDP) has been set for 12,704-13,094 new homes (JCS, 2014), in which a proportion falls within the East Broadland area. As a result, green infrastructure has a vital role in providing for and enhancing the new and existing links and green spaces for people and wildlife.

Following the Green Infrastructure Strategy (GNDP, 2007) and the Greater Norwich Green Infrastructure Delivery Plan (TLP, 2009), the focus of green infrastructure has been on the greater Norwich region, especially in the ‘Growth Triangle’, adjacent to the East Broadland area. The East Broadland area falls within the GNDP’s NPA (e.g. Great Plumstead and Brundall), but is predominantly to the east of this area. However, the onset of housing

development and population growth in the East Broadland area has led to the need for this green infrastructure plan.

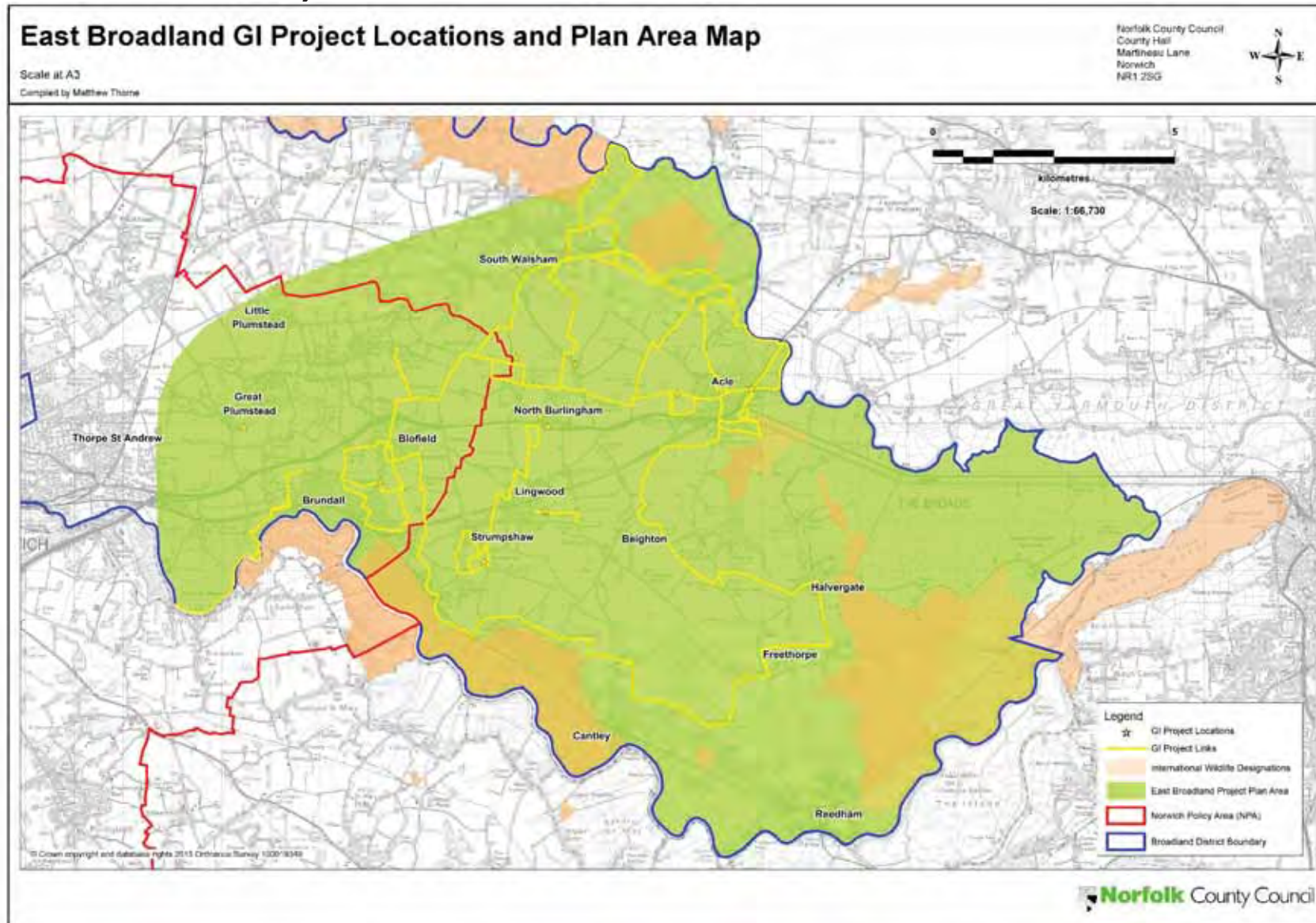


Figure 1: East Broadland GI Project Plan Area: Norfolk Context Map

The plan will support the future growth of the region by proposing green infrastructure projects with the capacity to accommodate future developments. It is intended that this study should be both proactive and reactive, making recommendations that will benefit the whole study area, both with planned developments at the time of study and areas without existing housing commitments. However, given that there are commitments for housing developments in the near future, certain aspects of the plan are in reaction to these.

Figure 2 shows the GI project locations and links that are identified within the plan in relation to the internationally designated sites. The projects are primarily located away from the designated areas to fulfil the objectives of the plan and mitigating measures will be taken to ensure that it does not impact on the designated areas. This will be examined further in the project development stage, when Habitat Regulation Assessment screenings will be completed.

Figure 2: East Broadland project plan area map, identifying the project locations and links, the area covered by international designations and the Broadland District and Norwich Policy Area Boundaries.



2. Context of the Green Infrastructure Plan

2.1 List of Key Strategies and Plans

- November, 2007: Green Infrastructure Strategy
- August, 2009: Greater Norwich Green Infrastructure Delivery Plan
- January 2014: Joint Core Strategy for Broadland, Norwich and South Norfolk
- May, 2015: Greater Norwich Infrastructure Plan
- 2014 - 2015: Local Neighbourhood Plans
- December 2015: Joint Core Strategy for Broadland, Norwich and South Norfolk: Annual Monitoring Report 2014-2015

2.2 Policy Context

A Green Infrastructure Strategy was produced to develop a strategic approach to green infrastructure in partnership to meet the green infrastructure, alongside the 'grey' infrastructure (i.e. road, schooling, utility), needs in and beyond the Growth Point Areas (GNDP, 2007). The aim:

"... to create a bold vision for the Greater Norwich Area and to establish a strategy for green infrastructure that will complement and support good quality housing and substantial economic growth ..." (GNDP, 2007:14).

This resulted in two parts, Part 1, that proposed a green infrastructure network identifying priority corridors and areas for investment in green infrastructure provision over the next 20-30 years and Part 2, the proposed action plan to co-ordinate the delivery of Green Infrastructure through the various partners in the Greater Norwich Area.

Following the study, the areas for growth within the GNDP were identified. As a result, the Greater Norwich Green Infrastructure Delivery Plan (TLP, 2009) was undertaken to focus on the areas where growth is most likely, in particular the South-West and North-East Norwich and their links with Norwich City. In refinement of the 2007 study, Green Infrastructure Priority Areas (GIPA's) were identified, reflecting detailed biodiversity information. The North-East part of the study area, known as the 'North East Growth Triangle', adjoins the Broads. It is linked via the A47 to the main wildlife sites within the floodplain of the River Bure, including internationally important fen and carr woodland (i.e. RAMSAR, SAC and SPA designated sites). In order to minimise the impact of new developments on such sensitive sites, the recommendations included:

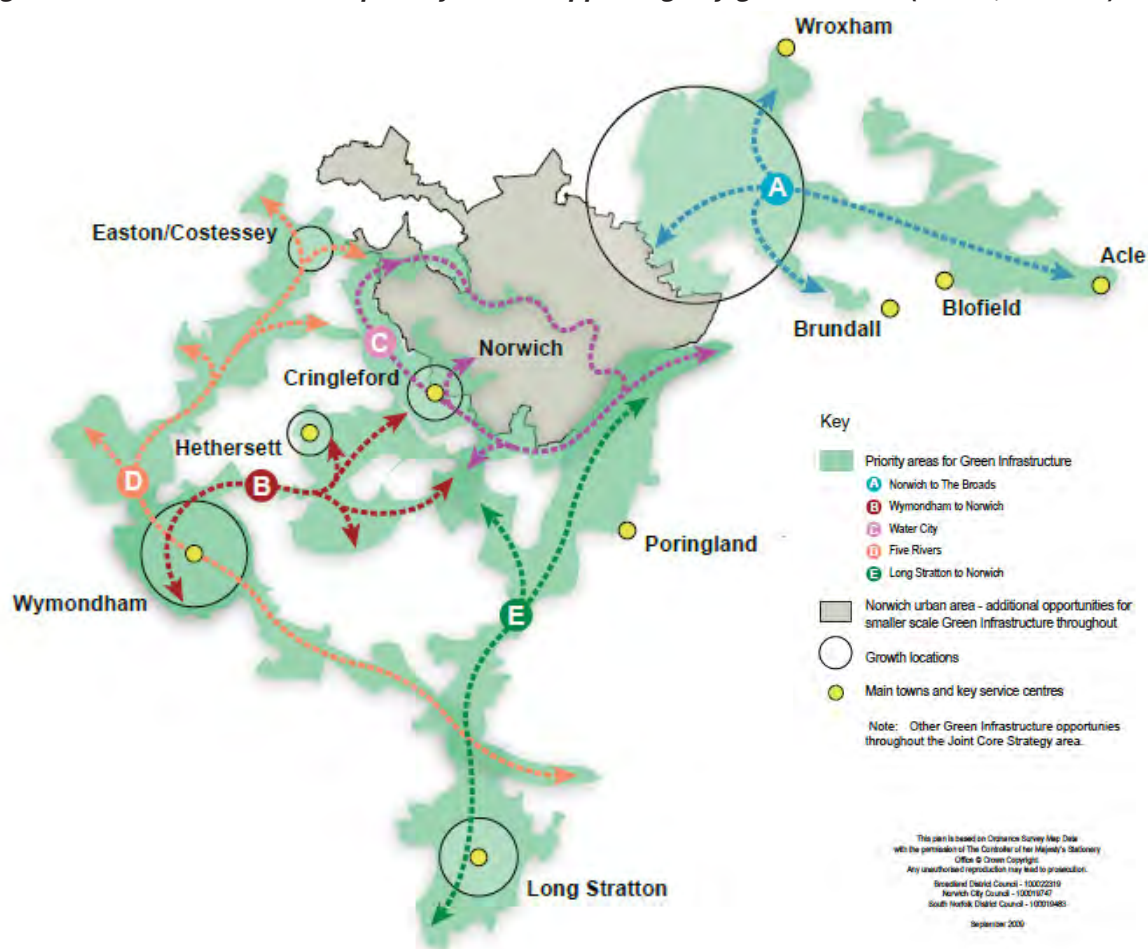
"That in the negotiation of any Section 106 Agreements with developers for both the implementation and future management of GI are given full representation by GI specialists from an early stage and that adequate resources are secured for the long term maintenance" (TLP, 2009:52).

Following this, the Joint Core Strategy (JCS) (GNDP, 2014) set out the long-term vision and objectives for the Broadland, Norwich and South Norfolk area (excluding the Broads Authority extent), identifying locations for housing, employment growth, changes to transport infrastructure, supporting community facilities and defining areas for development. This formed part of each council's Local Development Framework (LDF) guiding future development and use of land until 2026. As a result, a number of policies were formed including Area-wide policies (e.g. addressing climate change and protecting environmental assets), Policies for places (such as Strategy for growth in the Norwich Policy Area) and policies for Implementation and monitoring. The spatial vision of the JCS is thus:

"Between 2008 and 2026, at least 36,820 new homes will be built ... and about 27,000 new jobs will be created. All communities will be safer, healthier, more prosperous, sustainable and ... a network of green links will connect existing open space and wildlife habitats across urban areas and the countryside, and link to neighbouring areas outside the JCS including the Broads" (GNDP, 2014:20).

Policy 10 in the JCS (GNDP, 2014: 69) highlights the East Broadland area as a priority area for Green Infrastructure that supports key growth locations. The East Broadland area is represented by Key GI Area A: Norwich to The Broads in Figure 3 (see below).

Figure 3: Green infrastructure priority areas supporting key growth areas (GNDP, 2014:69)



The Greater Norwich Infrastructure Plan (GNGB, 2015) supports the delivery of the JCS, the Strategic Economic Plan (New Anglia LEP, 2014), other local plans and economic strategies in the area, and the Greater Norwich City Deal which aims to provide 13,000 jobs and 3000 homes, in addition to 6000 construction jobs. The Greater Norwich Infrastructure Plan (GNIP) focuses on infrastructure requirements that support the significant growth locations or the overall growth in the area, providing greater detail on implementing projects in the shorter term. Therefore, it has the capacity to evolve as project proposals develop, timescales for delivery vary and the nature of solutions change. To achieve this, it is updated with the latest information every 6 months.

“The projects in the Greater Norwich Infrastructure Plan are based on the need to mitigate the potential impacts on European Sites under the Habitat Regulations and an understanding of the location and timeframe for development within the spatial framework of the identified green infrastructure corridors” (GNGB, 2015:7).

The projects highlighted in this plan will contribute to the achievement of the Greater Norwich Infrastructure Plan, by meeting the need to mitigate the potential impacts of new developments on the Natura 2000 sites, and facilitating and complementing the achievement of projects the GNIP identifies.

The JCS Annual Monitoring Report (GNDP, 2015) shows that in regards to the five year land supply, despite an increase in the number of planning permissions granted in 2014/15, the Norwich Policy Area (NPA) cannot demonstrate a five year supply of deliverable sites. Once adjusted to account for previous shortfall, plus 20% required by the NPPF, at 1st April 2014, it made up 87.8% of the required supply, equivalent to sites for 4.39 years or a 1669 unit shortfall. However, the non-NPA Rural Areas which include both Broadland and South Norfolk demonstrate a consistent over-delivery, which once accounted for the previous surplus, plus 5% required by the NPPF, is respectively an 817 and 866 unit surplus, or 333.4% and 337.3% of the required supply.

“Given the rate at which the land supply position is being improved, with the potential adoption of further Local Plan documents during 2014/15 and 2015/16, it is possible that a 5 year supply will be attained within a monitoring year” (GNDP, 2015: 38).

2.3 The Habitat Regulation Assessments of the Broadland Local Plan

The Habitat Regulation Assessments of the Broadland Local Plan documents (the Joint Core Strategy, the Site Allocation DPD, the Development Management Policy DPD and the Growth Triangle Area Action Plan) identified potential impact on Natura 2000 sites (European designated wildlife sites i.e. Special Protection Areas, Special Areas of Conservation and Ramsar sites). The potential impact being caused by the increased recreational disturbance from cumulative growth on the sites' designated features (no specific site allocation was identified as having an impact on the integrity of the Natura 2000 network).

The agreed approach to mitigate the potential impact is to provide an enhanced green infrastructure network. The principle behind this being that residents from new and existing developments are provided with attractive, convenient and nearby opportunities to undertake their daily recreation needs (particularly dog-walking), and so they will not use Natura 2000 sites to meet these needs. To this end, Broadland District Council are ensuring GI provision through the planning system.

The GI provision is of a number of different scales; there have been some substantial 'set-piece' public access areas that have been secured through section 106 agreements (e.g. Harrisons Wood, a 31.5 hectare site as part of Planning consent 20080367; Beeston and Red Hall Country Park, 36 hectares of parkland as part of consented 20121516), with others expected as development comes on stream. These GI sites are intended to attract substantial numbers of users from the new larger developments. However, it is also necessary to provide some smaller-scale, local GI projects in and around settlements where growth is at lower levels. Although proposed growth is smaller in these areas, the principle here is the same; enhancements to local GI will encourage recreation at local sites and not at Natura 2000 sites. The East Broadland area has been identified as a location where GI enhancements are necessary.

Findings from the Recreation Disturbance Study Interim report

Interim study results from over 150 interviews at 5 Broadland Natura 2000 Sites show that:

- 71% of users were on a short visit from home
- About 18% were dog walkers. This a smaller number than at other Natura 2000 sites in Norfolk, possibly because two of the survey locations, Strumpshaw and Hickling, do not allow dogs (*At the time of writing, the interim data is not sufficient to distinguish between Broadland sites that permit or restrict dog walkers*).
- The median Euclidean (straight-line distance) from where visitors came to visit Broadland Natura 2000 sites was 18.3km (slightly higher than other parts of Norfolk).
- There was considerable variation between individual Broadland Natura 2000 survey locations, with the 'honey-pot' sites unsurprisingly attracting visitors from a longer distance. Sites of local value were attracting visitors from <8km.

Note: The results of the Interim Report are provisional at the time of writing, because there are Natura 2000 sites awaiting survey, including other Broadland sites, and no winter surveys undertaken.

2.4 Neighbourhood Plans

A number of Local Neighbourhood plans in the East Broadland area are in the process of or have been adopted, which have fed into the study. The plans consulted in this document include:

- Acle Neighbourhood Plan (Acle Neighbourhood Plan Working Group, 2015)
- Blofield Parish Neighbourhood Plan (Blofield Neighbourhood Plan Steering Group, 2015)
- Brundall Neighbourhood Plan (Brundall Neighbourhood Plan Working Group, 2015)
- Great Plumstead, Little Plumstead & Thorpe End Garden Village Neighbourhood Plan 2014-2034 (ABZAG, 2015)
- Strumpshaw Parish Council Neighbourhood Plan (Strumpshaw Parish Council, 2014)

Of direct interest to improving local GI, the Acle Neighbourhood Plan highlights the need for: improving the Acle Bridge facilities to fashion a high quality gateway, creating enhanced areas

of open space within and around the village centre, improving the footpaths, cycleways and bridleways connecting Acle to the surrounding villages and countryside, the need to reduce the severance effect from the A1064 through reduced speed limits and installation of a pedestrian crossing near Hermitage Close.

The Brundall Neighbourhood Plan identifies the improvement and joining up of the network of footpaths and cycleways to help the safe movement by foot and bicycle of residents or visitors and reduce car reliance, more specifically, with the aim of forming an orbital route around the village. The Plan supports the creation of new public access to the River Yare, with a potential slipway, by the Brundall riverside and new green open space for visitors and residents.

The 'Plumsteads' Neighbourhood Plan highlights the provision of walking and cycling opportunities between Great Plumstead, Little Plumstead and Thorpe End Garden Village, the necessity of GI in improving biodiversity and connections with existing green spaces in and around the villages, the improvement of the footpath and cycleway along Water Lane, the extension of the woodland walk around Thorpe End Garden Village, and a safe cycling and walking NDR crossing point at Low Road.

The Blofield Parish Neighbourhood Plan highlights among its objectives: the need to protect and enhance the countryside, including wildlife habitats and open spaces, the need for cleaner, safer and greener neighbourhoods and the creation of facilities to encourage walking and cycling within and between Blofield and Blofield Heath. For example, a project detailed is to investigate the potential construction of a footpath or cycleway between Blofield and Blofield Heath, alongside Woodbastwick Road or Ranworth Road. Further to this, it highlights the need maintain and enhance connectivity of all green corridors and spaces, which includes Local Green Space for special protection and areas of particular environmental importance that development should not impact upon, such as Howes Meadow, the Witton and Lackford Runs and Plantation Wood. There is the need: to protect views of particular community importance, for the enhancement of wildlife and signage at village gateways, for the development of a connected network of high quality footpaths or rights of way, for better cycling and walking links from new developments to village amenities and the countryside, for mobility access provision such as drop curbs, and for soft edges around development sites adjacent to the countryside e.g. hedgerows and trees.

The Strumpshaw Parish Council Neighbourhood Plan objectives include to maintain and protect the tranquil and rural character of the Parish, high landscape values, and marshes and nature reserves. It encourages green space provision in the built up core of the Parish, the completion of the footpath along Norwich Road in Strumpshaw between Beech Drive and Goat Lane and the sufficient provision of allotments for residents. The policies within the plan cover: the protection of key green features, such as on the south-western corner of Mill Road and Norwich Road, the protection of attractive countryside in the Parish from intrusive development, with particular consideration given to more sensitive areas, such as the Broads area and gaps between settlements and an area of land identified for a new community room, with up to 8 allotments and an enabling residential development of up to 10 dwellings, located to the west of Mill Road.

3. Aims and Objectives

3.1 Aims

The East Broadland Green Infrastructure Project Plan aims to provide Broadland District Council and other key stakeholders in the East Broadland area, primarily between Great Plumstead and Acle, with an in-depth study and plan to advise on potential local GI improvement and creation projects for the short-, medium- and long-term. This will mitigate the impact of new homeowners, in addition to enhancing and providing new local GI links and green spaces for both people and wildlife within the area. Of prime importance to the study is the protection of the series of highly sensitive wildlife sites, in particular within the Broads catchment holding statutory designations (e.g. Sites of Specific Scientific Interest) or other designations, such as County Wildlife Sites (CWS), which recognise their high value for wildlife, locally and nationally, in addition to the enhancement of access links and recreational spaces for people.

3.2 Objectives

In order to achieve these aims, there are the following objectives:

- 1) Existing neighbourhood plans, GI strategies and delivery plans relating to the East Broadland area will be consulted to direct GI projects proposed by the plan, for example, the Sub-Regional and Local GI Corridors will aid project decision-making (JCS, 2014:33).
- 2) It will help improve the existing and create new GI links and green spaces by meeting with stakeholders to identify specific areas of GI importance and potential.
- 3) It will help to prioritise funding to minimise the impact of new developments through ensuring good local GI networks and spaces away from sensitive sites and an improved awareness of these GI opportunities.
- 4) With approximately a third of all visitors to the countryside being accompanied by dogs (Edwards and Knight, 2006), the high frequency of dog walking and the recognised disturbance of dog walkers to sensitive wildlife sites, particularly ground nesting birds (English Nature, 2005), the plan will provide for and direct dog walkers away from Natura 2000 sites.
- 5) A range of visitor experiences will be provided by covering a variety of habitat types.
- 6) The plan will highlight potential GI enhancement and creation that will bring direct benefits to wildlife, in particular, extending the corridors and habitat networks in which they dwell.

4. Methodology

The project plan was approached using the following methods:

1. *Research and mapping*

This was primarily desk-based study to identify and map existing green spaces, corridors and links, potential projects that have been included in existing planning and GI-related documents, such as Neighbourhood Plans. Internal consultation within the Norfolk County Council Environment Team was used to gain a greater knowledge base of the study area and potential GI enhancement areas.

2. *Stakeholder Engagement*

This involved talking to key stakeholders, including parish councils where significant development is proposed, to identify what GI project opportunities there are for enhancing the green spaces, corridors and links within the East Broadland area and gaining further understanding of projects identified in the desk study. Maps were drawn up using GIS to show the existing Green Infrastructure within the study area (i.e. woodlands, wetlands, recreational green-spaces, designated wildlife sites, Public Rights of Way, Norfolk Trails and proposed development sites) to allow stakeholders to mark on the location of potential GI projects (See Figure 5 in Section 10.2).

The key stakeholders included:

- Acle Lands Trust
- Acle Parish Council
- BADCOG
- Blofield Parish Council
- The Broads Authority
- Brundall Parish Council
- Great & Little Plumstead Parish Council
- Lingwood & Burlingham Parish Council
- Natural England
- Norfolk County Council's Environment Team
- Norfolk County Council's Corporate Property Team (County Farms)
- Norfolk Wildlife Trust
- Norwich Fringe Project
- Royal Society for the Protection of Birds
- South Walsham Parish Council
- Strumpshaw Parish Council
- Upton with Fishley Parish Council

3. *Project Accumulation and Ground Truthing*

Following consultation, potential projects were inputted into an Excel spreadsheet including column titles such as: Project Number, Description and Location. These projects were compiled to reduce the number of potential projects and mitigate overlaps, creating a full list of potential projects for the East Broadland area (See Section 10.4). Following this, a series of ground survey visits were organised to inspect and photograph potential GI project locations and investigate their feasibility greater detail.

4. *Project Prioritisation and Key Stakeholder Workshop*

With the aid of ground survey and project compilation, projects were prioritised further into classifications of project, through considering their scale, how they meet the objectives of the study, and the potential for funding and deployment to form the Action Plan (See Section 7). Following this, the draft document was formulated and examined for amendments in a small key stakeholder workshop that included: Broadland District Council, Natural England, Norfolk County Council's Corporate Property Team and Norfolk County Council Environment Team.

5. *Document Formulation and Consultation Period*

Amendments were made to the document following the small key stakeholder workshop. The document was then sent to all the stakeholders involved in the plan for a consultation period of 21 days, before further amendments were made to projects included and document structure to form the completed plan document.

5. Opportunity Mapping

5.1 Study of existing plans and policies

Prior to stakeholder consultation, desk-based research was used to find out what potential project ideas or the key areas of interest there was in existing plans, strategies and guides, such as the Local Neighbourhood Plans, the Broads Management Plan (The Broads Authority, 2011), and the JCS (2014) GI corridors. Of particular interest was the existing Burlingham Trails Woodland Walks (Norfolk County Council, n.d.) which are in a key location in the centre of the study area, with access links to South Walsham, Acle, Blofield Heath, Burlingham and Lingwood. A suggested demonstration project is highlighted in the GI Delivery Plan (TLP, 2009), while Burlingham Woodlands enhancement is in the GNIP projects list (see ref: GI P2.4.1 (BDC ref: GI X1) in GNGB, 2015). It consists of farmland and woodland landscapes with mixed old and new hedgerows and trees, and supports a wide variety of wildlife. It is not classified as particularly sensitive and the ownership of the Burlingham Trails is under Norfolk County Council's Corporate Property Team, providing greater potential for GI improvements.

Other East Broadland projects of interest listed in the GNIP (GNGB, 2015) include: the Thorpe Woodlands protection of wildlife interests & connectivity project (ref: GI P2.2), the Plumstead to Burlingham connectivity project (ref: GI P2.3), the Acle Infrastructure Enhancements project (ref: GI P2.4), the Roman Wood, Acle - Enhancements project (ref: GI P2.4.2 (BDC ref: GI X1)), the links and improvements to Weavers Way Trail (Norfolk Trails) at Acle/Damgate project (ref: GI P2.4.3 (BDC ref: GI X1)), and the Jubilee Wood , Acle - Access and Enhancements project (re: GI P2.4.4 (BDC ref: GI X1)).

5.2 GIS Mapping and Stakeholder meetings

An opportunity mapping approach was undertaken, in which GIS maps were compiled to show the existing Green Infrastructure within the study area (i.e. woodlands, wetland, recreational green spaces, designated wildlife sites, Public Rights of Way, the Norfolk Trails network and proposed development sites). A series of stakeholder engagement meetings were arranged and stakeholders were asked to illustrate the location of Green Infrastructure projects that emerged during discussions of potential projects.

The mapping initially identified (see Figure 5 in Section 10.2) that the sensitive areas for biodiversity follow the Bure and Yare River basins within the Broads catchment, with some exceptions as County Wildlife Sites were not exclusively by rivers or streams in the study area. There are a number of woodlands across the study area, although these required stakeholder consultation and ground truthing to clarify their accessibility and ownership status later in the study. Housing allocations were shown to be primarily in Brundall, Blofield and Acle, while smaller allocations included South Walsham, Lingwood, Great Plumstead, Blofield Heath, etc. The North-Eastern extent of the study area is well served by Public Rights of Way and forms links between North Burlingham, Acle, Upton and South Walsham. There are also good links between the Blofield, Brundall, Lingwood and Strumpshaw. However, the A47 severs the PROW and wildlife corridors, although there are safe crossing points for people at Blofield and Acle, and wildlife can use the Witton Run which crosses under the road.

The map of the Strategic GI Corridors (See Figure 6 in Section 10.2) highlighted: the importance of the Witton Run, Blofield and Acle A47 crossing points, a link from Norwich to Acle, the strategic importance of the Burlingham Woodlands and Walks, the need for greater links between South Walsham and Acle and potential for a new A47 green corridor crossing

the A47 at North Burlingham to increase the connectivity for wildlife and people and serve areas of growth.

6. Project Proposals

Following the opportunity mapping and stakeholder consultation meetings, the potential project data was collated in an Excel spreadsheet. An initial list of 115 projects arose and were examined initially in terms of their ability to meet the aims of the study. The potential project ideas were then compiled with similar or identical ideas and the reduced list of 51 projects was produced (see Section 10.4). These projects were then scrutinised further, using a gold, silver and bronze standard rating system, in terms of their ability to meet the aims and objectives of the plan and potential for delivery in the short- and medium-term. 16 projects that were Gold or Silver standard form prioritised list of projects (see Section 6.2), while additional projects are considered for delivery in the medium- to long-term, and will depend on the nature of future GI needs and funding criteria.

6.1 Criteria for Project Delivery

To ensure that the prioritised projects in Section 6.2 meet the objectives of the plan, the projects must be considered in light of the following:

- The projects aim to draw people away from designated sites. However, they must not, themselves, negatively impact the designated sites. As a result, a Habitat Regulation Assessment (HRA) screening is required for each project to ensure that there is sufficient information to make an informed decision to measure the potential and cumulative impacts of the projects and other plans, against the conservation of one or more Natura 2000 sites in the East Broadland area. The HRA screening is outside of the scope of this plan, but should be carried out once funding for projects has been secured. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out the screening exercise.
- The projects must clearly link how they will meet the strategic and cumulative level need of alleviating the issues related to current and potential increased future usage of designated sites. As discussed in Section 2.3, the Habitat Regulation Assessments of the Broadland Local Plan documents identify the need for varying scales of GI provision, with some significant 'set-piece' projects, such as Harrisons Wood and Beeston and Red Hall Country Park, with others expected as development comes on stream. These GI sites are intended to attract substantial numbers of users. However, it also highlights the necessity of providing some smaller-scale, local GI projects in and around settlements where growth is at lower levels. Although proposed growth is smaller in the East Broadland area, enhancements to local GI will encourage recreation activity nearby and not at Natura 2000 sites. The East Broadland area has been identified as a location where small-scale GI enhancements are necessary, so the projects must deliver this objective.
- The projects must be attractive to people who want to access natural areas. This will mitigate the high impact of repetitive local resident use, while not undermining the largescale GI plans, for example those in the Growth Triangle Area Action Plan.

6.2 List of Projects

The 16 projects put forward for prioritisation in the short- to medium-term follow. Project maps associated with the projects can be found in Section 10.3. For further details about the projects, project proformas were completed (see Section 10.6 in the accompanying Proformas Document).

Please note: due to the strategic nature of the plan, the projects highlighted (including descriptions and maps) are indicative of the final projects. In-depth examination of project details and locations will be undertaken in the project development stage. Landowner consultation and HRA screening will also be done during this stage.

Project 1: Acle Lands Trust Woodlands Access and Connectivity Project

Description

The proposed project includes:

1. An improved gateway and signage at the entrance of Roman Wood, to allow cutting equipment onto the site and increase visibility from the road.
2. A path is required to replace the boardwalk in Damgate Wood for visitors. This will also allow Environment Agency to carry out ditch maintenance work. There is potential to use hoggin as a foundation with chippings on top for the path.
3. To ensure there is disabled access onto both the Damgate Wood and Roman Wood sites.
4. There is prospect for improving the access links and signage through and between Roman Wood, New Road Land, Damgate Wood and the Weavers Way. Between Damgate Wood and the Weavers Way, there is the possibility of small sections of recycled plastic boardwalk to improve the path to avoid waterlogged ground.
5. The formalisation of routes from new developments to the woodlands through signage and ensuring a clear path is key. Roman Wood and Damgate Wood are opposite development sites. As highlighted in the Acle Neighbourhood plan, the Parish Council is planning a crossing point over the A1064 near Hermitage Close providing new homeowners with walking access to the Roman Wood site. For Damgate Wood, there is potential to improve the link past Acle train station to the wood. Further inspection and consultation of the routes are required.
6. Provision of a compact tractor with implements attached for chipping, grass cutting, and other work to open up the paths and manage the meadow areas more effectively and frequently. Alternatively, if not possible, individual equipment provision, such as a large reciprocating mower and chipper would increase capacity. There is the possibility to buy shared equipment, as other stakeholders e.g. South Walsham Parish Council and the Friends of Cremer's Meadow in Brundall require the use of equipment.
7. Formalise a Damgate Wood Circular Walk with links to facilities. The delivery of this circular route is provided within this project, but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pubs, restaurant and cafes). The route would go from Reedham Road through Damgate Wood to the Weavers Way, then back along Damgate Lane and north on Reedham Road into Acle. Signage of the walk will be part of this project, but assisted by Project 6.

Opportunities

- There is landowner (Acle Lands Trust) approval for the project and potential for the landowner to take on project management responsibilities.
- All three woodlands have access to the Weavers Way, hence there is excellent potential to draw people away from the Broads to the woodlands.
- Damgate Wood is located within walking distance of the railway station, so there is potential to promote at the station and more widely.
- Acle Parish Council aims to reduce the severance effect from the A1064 through the installation of a pedestrian crossing near Hermitage Close. This will improve access from Acle, in particular the new development site north of Springfield, to Roman Wood.

Risks

- The New Road Land has only one access point, which is in the South-East corner linked to the Weavers Way, since the land is severed from Acle by the railway line and A47. Access through the site is limited at present as the land has previously been maintained primarily for naturalist studies rather than public access. Further discussion in regards to public access and the potential of creating a circular route around the site is required.
- Funding streams for the acquisition of equipment may be difficult to find.
- To the east of the Weavers Way where the Damgate Wood access from the trail will be, there is an area that has a statutory designation. However, there is no formal public access to the area and access is also blocked by large amounts of vegetation and fencing.
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. A potential organisation for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, is the Acle Lands Trust.

Justification

- The 3 woodland sites have been chosen as they are not designated sensitive areas. An alternative Acle Lands Trust-owned site was excluded from the plan as it is a sensitive area, designated as an SSSI. It is currently protected from people visiting the site, through separation by a river channel from the Weavers Way which passes the site.
- The woodlands are well located. Damgate and Roman Wood sites are located next to Acle and adjacent to two new development sites with good and improving access to the sites (e.g. Acle Parish Council's pedestrian road island project). Therefore, they will likely facilitate recreation activities such as dog walking away from sensitive areas and could form a crucial GI area, due to their high carrying capacity and quantity of people passing the woodland sites (via the A47, A1064 and Weavers Way). It makes space for wildlife, Theme 2 of GI Strategy (GNDDP, 2007), by safeguarding valued and sensitive wildlife sites, while facilitating managed access for education and enjoyment of the natural environment.

Project 2: Burlingham Trails Cycling and Walking Routes

Description

There is significant potential for improvements to the Burlingham Trails, by providing formalised cycling and walking routes, further connecting the trails with nearby settlements e.g. Acle, North Burlingham and South Walsham. This includes: new signage (to/from and on the trail), the delivery of the circular walking route which is provided within this project but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pub, restaurant and cafes), interpretation boards promoting the trails and the local environment (e.g. local farming practices), potential for an augmented reality app, new car parking provision (potential locations include: Dell Corner Lane, Green Land or an extension to St Andrew's Church car park), works on the proposed cycling route to bring it up to a cycle-

friendly standard, potential for planting hedgerows and trees along the Burlingham Trails, a new cycleway from Acle Bridge to Acle to provide tourists (e.g. boats) with cycle access to the trails and a crossing point for pedestrians, cyclists and horse riders at the intersection of Newport Road and Green Lane. This could include a warning system or sign for cars.

Opportunities

- There is significant potential for the project since the landowner is Norfolk County Council's Corporate Property Team. There is also prospect for Norfolk County Council to take on project management responsibilities.
- It is a pre-existing network of woodlands with routes through and between them, with paths for walkers and horse riders and small sections near North Burlingham and in Jubilee Wood to provide access for mobility vehicles. There is significant opportunity for upgrading and enhancing this network to make it a better all user-friendly route, especially for leisure cyclists and mobility vehicles.
- Acle Parish Councils aim to reduce the severance effect from the A1064 through the installation of a pedestrian crossing near Hermitage Close. This provides a potential crossing point for cyclists, if a cycleway along the East side of the A1064 between Acle and Acle Bridge was created.

Risks

- Norfolk County Council's Corporate Property Team leases much of the land in the vicinity to tenants. Therefore, the project will require a level of tenant support and collaboration as well as with the Corporate Property Team.
- The cycle and walking routes are indicative and require further consultation with the Corporate Property Team and tenant to gain consents on the exact route.
- The Burlingham Trails Cycle Route will likely require crossing or using a busy road. In order to overcome crossing issues, route alteration, traffic calming measures or signage may be required to ease mitigate issues. Measures should provide increased physical and perceived safety for potential families cycling with children.
- The footpath between Acle and Acle Bridge is provided through a permissive agreement with the Broads Authority. It may not be possible to upgrade this to a cycleway.
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. A potential organisation for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, is Norfolk County Council.

Justification

- The project is in a key central location within the study area, with access links to settlements North of the A47, such as South Walsham, Acle, Blofield Heath, North Burlingham, and with driving or public transport links from South of the A47 e.g. Blofield, Brundall and Lingwood.
- It meets Policy 6 of the JCS (2014) by significantly improving the cycling/walking network and the perceptions around cycling/walking in the area, providing strategic

corridors of movement. Since there are good rail links via Acle, there is incentive to use public transport modes to access the trails network.

- In keeping with the aims of the Acle Neighbourhood plan, it improves the footpaths, cycleways and bridleways connecting Acle to the surrounding villages and countryside.
- It makes space for wildlife, Theme 2 of GI Strategy (GNDP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors to an area of relatively higher visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.
- The Acle Neighbourhood Plan proposes improving the Acle Bridge facilities to create a high quality gateway. The cycling and walking links from the bridge to Acle are of great importance to achieving this and will encourage people away from the sensitive Broads area towards Acle, the Acle Lands Trust Woodlands and the Burlingham Trails.

Project 3: Burlingham Trails Attractions and Facilities Project

Description

In order to attract people to the Burlingham Trails, there is potential to create a number of recreational areas and facilities for visitors:

1. Friends of Burlingham Woods: To establish a volunteer group to help to manage and promote the Burlingham woodlands and trails. A potential barrier to the expansion of the Burlingham woodlands is the limited resources available to manage the woods. An initial step is to create a paid Project Co-ordinator post for the initial 3 years of the project. Their role would include the facilitation and co-ordination of a 'Friends of Burlingham Woods' volunteer group and the production of a sustainable woodland management plan (working alongside Norfolk County Council's Environment Team staff and Land Agent). This will include increasing wildlife corridors, highlighting potential areas to extend the Burlingham Woodlands and a poplar rejuvenation project, including the active removal and replacement of poplars with a variety of trees for Climate Change resilience. The role would also involve developing local networks and partnerships with other groups involved in countryside management in the study area and with groups involved in health promotion and education through outdoor activities.
2. A disabled access and cycle circular at Jubilee Wood linking the West-Acle (Mill Lane) development site to Jubilee Wood using the inside of the field edge, then through the wood South, then East along the A47 sliproad (Norwich Road), which may require improvement, North along the Western edge of the development site. The delivery of this circular route will be achieved through this project, but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pub, restaurant and cafes).
3. Potential for an informal recreation area in the field East of Jubilee Wood, by planting short wildflower mix for visitors and wildlife.
4. Planting a new woodland to form part of the Burlingham Trails network, extending the GI corridors and green spaces for wildlife and people. A potential site (as noted in Appendix 9 of the GI Delivery Plan (TLP, 2009)) is at Burlingham Road, South Walsham, forming part of a programme for the re-creation of former woodlands to the north-east of Norwich, with the objectives of opening the woods for public access, growing quality hardwoods and enhancing the wildlife value of the broader area. The project embraces sound management, in order that the woodlands offer the fullest potential to wildlife. Enhancements to public rights of way to reinforce the network of Burlingham Woodland Walks. Project aspects include:
 - New woodland of 3.5ha (2500 trees), including an orchard of 30 trees.

- Access path to link with existing routes.
 - Interpretive material.
 - Community engagement and involvement
 - Tactile sculptures.
 - New benches
5. An improved car parking and provision of other facilities e.g. toilets. There is potential for a new car park at either Dell Corner Lane or in the field corner where Green Lane meets the Newport Road. If the Green Lane option was taken forward, there would be the possibility of a flood mitigation planting area north of the car park, to reduce floodwater build-up in the low lying section of Green Lane. In addition, there is potential for an extension to St Andrew's Church car park, north of the existing area. The provision of composting toilets and a cafe at St Andrews car park for the church and visitors would provide facilities to encourage longer visits and enhance the experience. Initial piloting of the café could be done using a mobile coffee shop or van.
 6. New interpretation facilities such as information boards and possibly an 'augmented reality' app.
 7. Create an Environmental Sculpture trail by commissioning new artworks to supplement the existing sculptural sundials on the Burlingham Walks.
 8. Improved waymarking to the Burlingham Trails from the main roads and key settlements, including signage to and at the entry points and facilities. For example, there is potential for signage directing passing traffic from the A47 to the North Burlingham woodland walks and an improved entrance to the car park next to St Andrew's Church through vegetation management and signage to create a clear gateway.

Opportunities

- The expansion of car parking and provision of other facilities (e.g. a café and toilets) will be of significant benefit to the trails. They will encourage visitors to travel from greater distances and for increased lengths of time, as parking, toilets, and food or drink facilities will be available at a potential start location for using the Trails.
- Increased recreational space provision will offer visitors with more choice of activities and incentives for families to bring children, for example, if there is space for informal outdoor games and picnic areas.
- Creating a new woodland enhances the benefit to wildlife in the broader area and interpretive material and sculptures will offer people opportunities for nature study and learning about local farming practices.
- The North-East of Jubilee Wood potential new recreation area was highlighted as a potential location by the landowner.
- There is significant potential for the project since the landowner is Norfolk County Council's Corporate Property Team. There is also prospect for Norfolk County Council to take on project management responsibilities, aided by the proposed Project Co-ordinator role.

Risks

- Norfolk County Council's Corporate Property Team leases the land around the trails to tenants. If a lease has been renewed with tenants prior to projects being agreed with the landowner, there will be a lower chance of collaboration with the tenant in the short-to medium-term. Good communication with the Corporate Property Team will enable potential land lease renewals to be examined in the light of project proposals and

communications with tenants in the project development stage will aim to alleviate fears over impacts to livelihood.

- The possible site for a new woodland next to Burlingham Road, South Walsham is currently being used as an ash dieback test plot for the next 3 years. Although it is not likely, the current tenant may require the land for a further 5 years.
- The entry point to the car park at the end of Green Lane is close to a main road, so the location may not be approved by the Norfolk County Council Highways Section. Further consultation with the Highways Section is required, if this location was desired for a new car park.
- The Jubilee Wood circular requires consultation with the Corporate Property Team to discuss further the route, in particular the East side of the circular along a new development site boundary with neighbouring land that has potential for development in the future.
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. A potential organisation for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, is Norfolk County Council.

Justification

- The woodlands is in a key central location within the study area and has good access via the A47, walking and cycling links to settlements North of the A47 such as South Walsham and good driving or public transport links from the South of the A47 (e.g. Brundall to Acle).
- The Burlingham Trails new woodland project, next to Burlingham Road, is detailed in the GI Delivery Plan as a demonstration project (TLP, 2009) and is listed as a project for delivery, indicatively, in the GNIP for the years 2015/16 (GNDP, 2015).
- It makes space for wildlife (GNDP, 2007) by safeguarding valued wildlife sites by drawing visitors to an area of high visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.

Project 4: Long Distance Cycle Loop

Description

Long Distance Cycle Loop:

1. An East Broadland long distance cycle loop that links through settlements and passes train stations around the East Broadland area, which includes spurs off the main route to points of interest and additional settlements. The aim is to link the route to the Norwich Pedalways and the Broadland Way, while train stations will provide good access links to/from Norwich and Great Yarmouth. Feasibility study is required to examine the potential of an off-road cycling section from Great or Little Plumstead to Norwich, expected to cross the NDR at Middle Road, which includes cycleway continuation along Water Lane. An indicative map of the loop is displayed in Section 10.3.

2. There is potential to promote the use of the East Broadland cycle loop through mapping and use of promotional media to show exemplar cycling possibilities. These might include:
 - a) The cycle link from Acle to Norwich (created by the East Broadland cycle loop).
 - b) A Yare Valley cycle circular route. This would combine the existing Yare Valley cycle route from Norwich to Reedham, cross the river using the Reedham ferry, then use the East Broadland cycle loop route to link back to Norwich.
 - c) Promotion of small sections of the East Broadland cycle loop to give examples of manageable cycling routes suitable for a target user group (e.g. a cycle section between two train stations that has facilities for families).

Note: The routes and details of the project are indicative and will be determined in the project development stage. The routes should not increase visitor impacts on internationally designated sites, specifically on Strumpshaw Fen.

Opportunities

- The study area is well served by good public transport links and the road network. The long distance cycle loop has the potential to encourage tourism away from sensitive sites and towards areas of greater carrying capacity.
- It will provide a safe cycling link from Norwich to the East Broadland area including settlements e.g. Acle and complements the Growth Triangle plans for cycling (Broadland District Council, 2014), which includes linking to the Norwich Pedalways, that provides commuting potential, particularly from the Plumsteads area, and connections to the Broadland Way, which delivers an expansion of leisure and tourism possibilities through two linked long distance cycling loops North and East of Norwich (The Green Loop and The East Broadland Loop).

Risks

- The cycle loop has been compiled using expert knowledge and experience of the East Broadland area and some ground survey. Full ground survey and route feasibility is required.
- Widespread uptake of the route for leisure and tourism may not occur due to perceived and physical safety and convenience issues of cycling on the road by leisure cyclists, especially families. This could be overcome through promotion of manageable and well-signed sections of the loop with good public transport links and facilities.
- Signage of the route requires further investigation and consultation with the Highways Authority.
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. A potential organisation for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, is Norfolk County Council.

Justification

- A new long distance cycle loop provides local residents with an alternative recreational activity to visiting the sensitive Broadland sites. There are good access links through public transportation networks, e.g. train stations throughout the route, to enable

manageable distances for cycling and spurs off the main route link to adjacent settlements providing economic benefits for local businesses (e.g. shops, cafes, accommodation, and local attractions).

- It meets Policy 6 from the JCS (2014) by significantly improving the cycling network and the perceptions around cycling in the area, providing strategic corridors of movement. Since there are good rail links, there is the incentive to use sustainable modes of transport.
- It could provide footpath and cycleway improvements along Water Lane identified in Theme 6 of the 'Plumsteads' Neighbourhood Plan.
- It was supported by all the stakeholders met during consultations.
- It makes space for wildlife, Theme 2 of GI Strategy (GNBP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors to an area of relatively higher visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.

Project 5: A47 Safe Foot and Cycle Crossing

Description

A safe foot and cycle crossing over the A47 between Lingwood and North Burlingham. This will provide a vital link between the settlements and the Burlingham Trails to the north and south of the A47, as the fast road severs access for active transport, while it is difficult for cars to cross. The 2015-2021 A47 dualling plans for the Blofield and Burlingham section will increase the severance effect. This crossing would provide a way to integrate communities on both sides of the road, whereby at present pedestrian crossings are at Blofield and Acle. North of the Blofield crossing, there is currently no formal walking link (see Project 8).

Opportunities

- The crossing will significantly enhance the Burlingham Trails network, increasing the enjoyment of the experience for residents from local settlements north and south of the A47. It has the potential to form a new green corridor across the A47 for wildlife with its close proximity to the Northern Greater Norwich Area GI Corridor network (see Figure 6 in Section 10.2).
- As part of the £300 million investment package committed in November 2014 by the Government for upgrading the A47, funding of £40 million has been set aside for the dualling of the Blofield to Burlingham section, although estimated final cost varies from £54-80 million (AECOM, 2015a). Hence, there is significant potential for inclusion of the crossing within the plans as further funding opportunities are sought.

Risks

- Although there will be decreased costs of the project as the project might be included as part of the dualling plans, there are likely to be monetary and timescale costs associated with adding the project. Therefore, the key social benefits (for example, links between settlements and new developments), environmental enhancements (such as increasing the extent of the green corridors) and economic benefits (i.e. providing people with the recreational facilities that will encourage further investment and development in the region) should be emphasised.
- As part of the Autumn Statement in 2014, the dualling of the section was included in the trunk road programme 2015-2021. The project must be highlighted quickly for inclusion within the plan.

- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. A potential organisation for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, is Norfolk County Council.

Justification

- Consideration should be given to the project, as it is in a central location within the East Broadland area making it a key site for a safe crossing point to link the settlements on the north and south sides of the A47.
- The A47/A12 Feasibility Study (AECOM, 2015b) highlights that between Blofield and North Burlingham, the average daily speed is 72km/h and average daily traffic volume is approximately 27,000 vehicles. This presents a significant barrier to pedestrians, cyclists and wildlife. With predicted traffic growth of 21% by 2021 and 45% by 2031 (from a base year of 2013) and the impact of dualling is considered, there is a greater need for a safe crossing point.
- Since there is growth expected in the region, especially in the Blofield area which currently has no formalised walking and cycle links North of the A47, the crossing will form a crucial link between settlements either side of the A47. It would also form a green corridor for wildlife and people by connecting both sides of the Burlingham Trails network.
- It makes space for wildlife, Theme 2 of GI Strategy (GNDP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors to an area of relatively higher visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.

Project 6: Local walking circulars with links to pubs, restaurant and cafes

Description

A series of walking circulars with links to cafés, restaurants and pubs, using existing and newly created routes. This will direct walkers (including dog walkers) along scenic routes away from sensitive sites and with provision of facilities. The project will include both route creation and promotion (see also Project 7). The delivery of this project is independent from the potential routes highlighted, as their establishment will vary in timescales, location and funding. The routes for delivery will be re-examined in the development stage. These include the following circulars:

1. Strumpshaw and Lingwood Circular Walk
The southern loop around Strumpshaw Pit will be delivered in Project 15 (Strumpshaw Pit) and the northern loop is maintained by Norfolk County Council as part of the existing Burlingham Trails. This project is responsible for the delivery of the route, signage and promotion, in particular, signage to pubs, restaurants and cafes.
2. South Walsham Circular Walk
The walk will be delivered as part of Project 12 (South Walsham GI). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.
3. Jubilee Wood Disabled Access Circular Walk

The walk will be delivered as part of Project 3 (Burlingham Trails Attractions). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.

4. Burlingham Trails Circular Walk

The walk will be delivered as part of Project 2 (Burlingham Trails Cycling and Walking Routes). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.

5. Damgate Wood Circular Walk

The walk will be delivered as part of Project 1 (Acle Lands Trust Woodlands). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.

6. Weavers Way Circular Walk 10 (via Acle and Upton)

The walk is an existing route maintained by Norfolk County Council. This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.

7. Blofield and Brundall: Exploring Broadland Circular Walk

The walk is an existing route promoted by Broadland District Council and potential route delivery and signage is included within Project 9 (Cremer's Meadow) and Project 10 (The Witton Run). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.

Opportunities

- There is potential to promote the existing and create new circular walking routes that provide local residents with areas to go to away from the most sensitive areas of The Broads where walkers, particularly dog walkers, are more likely to have a negative impact on wildlife.
- The walks are close to existing settlements including near to growth locations.
- It has the potential to increase spending in the East Broadland area (e.g. in local shops, accommodation, etc.).

Risks

- The responsibility for each circular is likely to be delegated between different stakeholders, since various stakeholders have different levels of interest in delivering each route. Therefore, good communication regarding the status and promotion of routes will be required between projects to enable co-ordinated delivery of the walks.
- Full surveys of the routes are required.
- Landowners may not allow access.
- The South Walsham circular route requires a permissive agreement over South Walsham Marshes from the Pumphouse to Marsh Road. This needs consultation with the landowner and the Highways Section at Norfolk County Council.
- Many of the routes are contingent on other projects within this plan for their delivery. If they are not delivered in time, they may require taking out of the project.
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. Potential organisations for the long-term maintenance will be decided on a walk-by-walk basis and include: Norfolk County Council, Broadland District Council, the Acle Lands Trust, and South Walsham Parish Council.

Justification

- Natural England discussed during stakeholder meeting, that dog walking is a significant concern for sensitive areas of wildlife and suggested that circular walks with cafés and pubs could provide an incentive for dog walkers to change current potentially ecologically damaging habits. Furthermore, the Habitat Regulation Assessment (HRA) of Site Specific Allocation Document for Broadland (Norfolk County Council, 2014) highlights the impact of dog walking on sensitive birds in the East Broadland area (e.g. at Cantley and Buckenham).

“... if attractive and accessible local opportunities for everyday recreational uses such as for dog walking are made available then there will be a reduced need for residents to visit International Sites” (Norfolk County Council, 2014:60).

- The walks are close to areas of growth, with good access links to new developments.
- It makes space for wildlife, Theme 2 of GI Strategy (GNDP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors to an area of relatively higher visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.

Project 7: Promoting GI links and spaces

Description

A significant promotion project to communicate local and regional green infrastructure links and open spaces for cycling, walking and horse-riding to new homeowners, local communities and tourism away from sensitive wildlife sites.

- Part 1 - Create a new homeowner's welcome pack that will be given to new homeowners when moving in.
 - An "Early Bird" welcome pack will be created to highlight existing GI in the local vicinity and East Broadland for immediate distribution to homeowners that have moved into new developments. This will prevent habits of recreation in sensitive wildlife sites being established.
 - A "Standard" welcome pack will be delivered with an updated and full inclusion of existing and newly created GI in the local and regional area.
 - Potential GI for promotion will be examined further in the project development stage. Suggestions for potential inclusion are:
 - Burlingham Trails Walking and Cycling Routes
 - The East Broadland Long Distance Cycle Loop
 - The Acle to Norwich Cycle Route
 - Yare Valley Cycle Circular
 - RSPB (Strumpshaw) woodland and wetland led cycle rides
 - The Tour de Broads cycle routes
 - Fairhaven Gardens
 - RSPB Strumpshaw Reserve
 - NWT Upton Walking Guides
 - 6 South Walsham walks made by Natural England in consultation with South Walsham Parish Council.

- Circular walks with links to pubs, cafes and restaurants
 - A guide to finding local parish allotments
 - Improve and promote the Wherry Line Railway Rambles to encourage people to take the train and walk between stations.
 - Create a guide to settlements in the East Broadland area and promote them by attributing local identity to each place e.g. dragonflies to represent Upton.
- Part 2 - Website and social media
 - Work with Local Authorities, Parish Councils and tourism organisations to promote new and existing GI using websites and social media.
 - Other media channels are recommended to complement this, such as through events promotion and the monthly inclusion of a circular walk in the Broadsheet.
 - Part 3 - Booklets and leaflets
 - Potential to work with different stakeholders to accumulate and create a unified local walking and cycling routes booklet.
 - Produce and distribute leaflets and booklets relating to local GI in the study area to give to local Tourist Information Centres, Schools, Libraries, etc.
 - A leaflet promoting Broads-type experiences in the locality away from sensitive sites.
 - Part 4 – Signage
 - New and improved signage, including:
 - The long-distance cycle route with links to adjacent settlements and points of interest waymarked.
 - From train stations and other visitor hotspots to local GI (e.g. signage from Acle train station to Damgate Wood).
 - A clearly waymarked route from new developments to local GI.

Opportunities

- The use of existing local media e.g. Broadsheet to promote walking and cycling routes every month in less sensitive areas.
- To work with local stakeholders to promote the local and regional GI
- To engage new and existing homeowners in various ways to promote sustainable lifestyles as highlighted in the GI Strategy (GNDDP, 2007) and JCS (2014).

Risks

- The welcome pack is at risk of homeowners throwing away or not being used when they move into their new homes. Therefore, reinforcement of the message through various forms of media is required.
- Signage of the route requires further investigation and consultation with the Highways Authority.
- There is a need to work with developers and local facility providers (e.g. schools and libraries) to distribute promotional materials.
- The projects that will be promoted are subject to Habitat Regulation Assessment (HRA) screening to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of the promotional project will be determined in the project development stage. A potential organisation for the long-term maintenance, following

possible short-term maintenance funding e.g. Section 106, is Broadland District Council.

Justification

- Excellent and co-ordinated promotion of the existing and new GI in the East Broadland area, particularly with GI near to the larger settlements e.g. Acle, is essential for people to use the Green Infrastructure and lead to the effective change lifestyle practices that could otherwise negatively impact sensitive wildlife sites.
- There is likely to be a high benefit-cost ratio of the project, since promotion can be done effectively through established media channels (such as Broadsheet, social media and websites).
- If the GI projects which have a high capital investment are not well advertised, they will not be effective in drawing visitors and residents away from sensitive Broadlands wildlife sites.
- It makes space for wildlife, Theme 2 of GI Strategy (GNDDP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors to an area of relatively higher visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.

Project 8: Link from Blofield to Blofield Heath

Description

Conduct a feasibility study into the creation of a link between Blofield and Blofield Heath. This would provide a crossing point over the A47 with the potential further links from Blofield Heath East to the Burlingham Trails and West to the 'Plumsteads'. Since Blofield has good PROW links to the settlements south of the A47, it would be key in integrating the communities both north and south. A potential route could follow north from the new development sites in Blofield over the A47 using the bridge with an existing path, then along a new path by the side of road which turns right onto Bullacebush Lane and then left onto Ranworth Road until it joins with the pavement in Blofield Heath. In the project development stage, a feasibility study will investigate the possible routes and costs and involve landowner consultation to identify the best route.

Opportunities

- There is significant potential for the route to link Blofield with Great and Little Plumstead and the Burlingham Trails network.
- Between Blofield and the A47 Bridge and in Blofield Heath, there is an existing path for pedestrians.

Risks

- The route proposed through consultation with Blofield Parish Council would be along a road lined with trees which may result in a significant cost.
- The potential routes require a full ground survey, as the best pedestrian route is not known at present.
- The landowners and Highways Agency may not allow access.
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.

- The long-term maintenance of new GI will be determined in the project development stage. Potential organisations for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, are Broadland District Council and Norfolk County Council.

Justification

- In the stakeholder meetings, the project was a high priority for Blofield Parish Council.
- A feasibility study to assess the potential of the project and provide a detailed understanding of the advantages and disadvantages in which to make an informed decision can be achieved at a low cost.
- It follows Theme 4 of the GI Strategy (GNDP, 2007) by encouraging people to adopt low-carbon lifestyles with minimal requirements for car use.
- It makes space for wildlife, Theme 2 of GI Strategy (GNDP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors to an area of relatively higher visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.

Project 9: Cremer's Meadow GI Project

Description

Cremer's Meadow is comprised of over 4 acres of land (owned by Brundall Parish Council). Their policy for the site is to preserve it as a wildlife and nature reserve that is open to recreational activities that enable people to experience and learn about the natural environment in a way that does not conflict with conservation.

1. There is potential to work with the Friends of Cremer's Meadow to undertake biodiversity enhancement and conservation activities throughout the site.
2. There is potential to create and formalise public access around the site to encourage local residents to enjoy and learn about the natural environment. This could include a new path, signage, interpretation, and benches. This could work in conjunction with the Witton Run GI Project (Project 10) and the Circular Walks Project (Project 6) forming part of a link across the middle of the Blofield and Brundall: Exploring Broadland Circular Walk.
3. There is potential for shared equipment provision (linked to the Acle Lands Trust Woodlands, Burlingham Attractions and South Walsham GI projects).

Opportunities

- Brundall Parish Council own the Creamers Meadow site.
- There is opportunity for an off-road walking route around the site to form a crucial GI link for Project 10 (Witton Run GI Project).
- Brundall Parish Council are attempting to acquire the land to the North of Berryfields for field sports and to the north-east of Brundall Memorial Hall for less active recreational activities. The land north-east of Brundall Memorial Hall would create new access to Cremer's Meadow and could form a crucial community walking link with scenic views and the continued preservation of the wildlife corridor highlighted as a strategic GI corridor in the GI Delivery Plan (TLP, 2009) and the JCS (2014) (see Figure 6 in Section 10.2).
- The Cremer's Meadow site is close to areas with a significant proportion of the East Broadland growth (Brundall and Blofield).

Risks

- Recreational activities and visitor pressure conflicting with conservation goals. Measures, such as interpretation and signage or promotional approach (e.g. to only promote locally) could be used to minimise issues.
- The land Brundall Parish Council are attempting to purchase may not be achieved.
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. A potential organisation for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, is Brundall Parish Council.

Justification

- Cremer's Meadow is on the Witton Run, which forms a vital GI link between Brundall and Blofield, two important areas for growth due to their high proportion of housing allocations in comparison to the rest of the East Broadland area. Hence, it would allow public access closer to the Witton Run which would be more attractive walkers, including dog walkers, from new development sites.
- It will increase walking provision near to Brundall and Blofield as discussed in the respective neighbourhood plans and access to areas of significant biodiversity interest.
- It makes space for wildlife, Theme 2 of GI Strategy (GNDP, 2007) by safeguarding valued and sensitive wildlife sites, while facilitating managed access for education and enjoyment of the natural environment.

Project 10: Witton Run GI Project

Description

The Witton Run is a crucial green infrastructure corridor in the East Broadland region. There is significant potential to use this corridor to increase access links around Blofield and Brundall, so it follows the Witton Run more closely and connects the existing GI between the Yarmouth Road and St Michael & All Angels, Braydeston. The different aspects for delivery include:

1. Footpath improvement alongside the Yarmouth Road between the PROW (Postwick FP6) and Frogs Hole.
2. Completion of access alongside the Witton Run. It would require buying land or negotiating a permissive access agreement over two sections of land, continuing the path between Blofield and Brundall.
3. Potential for walking links from the new Brundall and Blofield developments to be formalised through signage, e.g. from the end of Berryfields to the PROW (Brundall FP2).
4. To formalise a double-looped circular walk based on the existing Blofield and Brundall: Exploring Broadland Circular Walk (promoted by Broadland District Council) through route improvement and signage. The walk will facilitate its inclusion as part of the local walking circulars with links to pub, restaurant and cafes (Project 6).
5. Links with existing Brundall Parish Council GI, including Brundall Memorial Hall's recreational space and provision of passage around the edge of Cremer's Meadow (Project 9).

6. The project should be beneficial in terms of the management of the Witton Run, water quality, ecological connectivity and climate change resilience. Negative impacts on water quality should be mitigated, especially due to the potential impact on Strumpshaw Fen. This will be examined further in the project development stage.

Opportunities

- Brundall Parish Council own the Creamers Meadow site, which offers an opportunity for an off-road walking route around the site.
- Brundall Parish Council are attempting to acquire the land to the North of Berryfields for field sports and to the north-east of Brundall Memorial Hall for less active recreational activities. If the land is purchased, the land to the north could form part of a path from the cemetery east to the PROW (Postwick FP6 or Brundall FP2). The land north-east could form a crucial community walking link with preservation of scenic views and the continued conservation of the wildlife corridor highlighted as a strategic GI corridor in the GI Delivery Plan (TLP, 2009) and JCS (2014) (see Figure 6 in Section 10.2).
- The Witton Run is close to areas with a significant proportion of the East Broadland growth (Brundall and Blofield).

Risks

- The land Brundall Parish Council are attempting to purchase may not be achieved.
- Landowners may not allow access.
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. Potential organisations for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, are Norfolk County Council, Broadland District Council, The RSPB and Brundall Parish Council.

Justification

- The Witton Run forms a vital GI link between Brundall and Blofield, two important areas for growth due to their high proportion of housing allocations in comparison to the rest of the East Broadland area. Hence, public access closer to the Witton Run would likely attract walkers, including dog walkers, from new development sites.
- It will increase walking provision in the Brundall and Blofield parishes as discussed in the respective neighbourhood plans and access to areas of significant biodiversity interest.
- It makes space for wildlife, Theme 2 of GI Strategy (GNDP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors to an area of relatively higher visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.

Project 11: Great Plumstead Open Space or Community Orchard Walk

Description

There is potential to create open space or an orchard walking area in the field to the East of Great Plumstead, behind Rosebury Road on land which is owned by Broadland District Council. The 'Plumsteads' Neighbourhood Plan proposed the site for approximately 33 affordable and downsizing-category homes which could form part of the plan. The eastern half of the field has potential for community space, as it a mains gas pipeline runs underneath the area inhibiting development, but not other uses. There is potential for a circular walking route around this area which could provide additional recreational benefit for local residents, including dog walkers, away from sensitive sites and close to a potential new development.

Opportunities

- The eastern section of the field is not conducive to development, so there is significant potential for recreational use.
- The site is owned by Broadland District Council.

Risks

- There are main gas pipes underlying the East section of the field, which inhibit significant development. However, this could also present a potential hazard for walkers. Hence further investigation into appropriate recreational activity and uses of the land is required.
- At present, there is uncertainty over the possible size and nature of a new development to the west of the field.
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. A potential organisation for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, is Broadland District Council.

Justification

- The Habitat Regulation Assessments of the Broadland Local Plan documents highlight the need for local recreational spaces that are well connected and close to developments. If part of the field is made available for housing in the future, it will become a key area of local GI provision for the new homeowners.
- It makes space for wildlife, Theme 2 of GI Strategy (GNDP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors away from these areas, while facilitating managed access for education and enjoyment of the natural environment.

Project 12: South Walsham GI Project

Description

The project for delivery will be examined further in the project development stage. The different aspects of the prospective project includes:

- Part 1: Potential footpath along School Road (South Walsham) from Fairhaven Primary School to Pilson Green, forming a key safe link between South Walsham and Pilson

Green. Plans for the delivery of the footpath are expected to be carried out by Norfolk County Council in early- to mid-2016. This will extend the safe walking links between Pilson Green, Upton and Acle to South Walsham, passing Fairhaven Gardens and Fairhaven Primary School.

- Part 2: There is potential for a figure of eight circular walk that will link settlements with the South Walsham marshes, passing a new community GI space (see Part 3). This will draw people away from statutory designated marshes that are to the north and south. The delivery of the circular walk will be provided through this project, but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pubs, restaurant and cafes).
- Part 3: The area of a Norfolk County Council Corporate Property Team field, to the west of the PROW on School Road (South Walsham FP5), could potentially become a mixed-use community space with a car park. A car park entrance may require a small portion of land to the east side of the PROW (South Walsham FP5) due to vegetation. This would require land acquisition.

Opportunities

- By linking up the local GI networks, it will meet various needs, including: aiding a safe walking link to Fairhaven Primary School, and providing local community and recreational facilities, and local walking routes that provide a Broads-type experience in a less sensitive area.
- South Walsham Parish Council are willing to take on a project management role.
- Ownership of the land belongs to the Corporate Property Team at Norfolk County Council.
- The safe walking link between South Walsham and Pilson Green is expected to be carried out by Norfolk County Council in early- to mid-2016

Risks

- There is a relatively lower number of developments in close proximity compared with other areas within the East Broadland area, so there is potentially less funding available for the project.
- The South Walsham circular route requires a permissive agreement over South Walsham Marshes from the Pumphouse to Marsh Road. This needs consultation with the landowner and the Highways Section at Norfolk County Council.
- If a car park is to be built as part of the project, an entrance from School Road may require a small portion of land to the east side of the PROW (South Walsham FP5) due to vegetation. Land acquisition may not be possible. In addition, the sub-base from the footway scheme may not be conducive to heavy vehicles.
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. Potential organisations for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, are South Walsham Parish Council and Norfolk County Council.
- The lease of the land is to end within the next year. There is need for agreement with the NCC Corporate Property Team in regards to allowing the field required for the

project (Part 3) to be split from the rest of the field and leased on a year-by-year basis. This could also include the area for a potential car park entrance (see Description).

Justification

- The project is in a central location between Pilson Green and South Walsham, encouraging people to adopt low-carbon lifestyles with minimal requirements for car use (Theme 4 in GNDP, 2007).
- It supports communities by encouraging healthier lifestyles, greater opportunities for social interactions and increased access to green spaces (Policy 7 in JCS, 2014).
- It makes space for wildlife, Theme 2 of GI Strategy (GNDP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors to an area of relatively higher visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.

Project 13: West Brundall GI Project

Description

- Part 1: Potential walking links to the west of Brundall:
 1. Connect the new developments north-west of Brundall, through the existing Norfolk County Council, Corporate Property Team community woodland walk, with Brundall Gardens Station, the Parish Council allotments and Brundall village centre.
 2. Continue the link from the new developments to the Witton Run PROW, via the cemetery or Berryfields connecting to the north-east Brundall PROW network (See Project 10).
 3. A link from Brundall Gardens station and/or from the Parish Council allotments to the existing PROW (Postwick FP3) leading to the Environment Agency (EA) angling sites on the Yare riverbank. This may require formalising the permissive agreement along the south side of the railway track.
 4. Create a circular walk around the Environment Agency land by the Yare River.
- Part 2: Continue the PROW from the EA angling sites (Postwick FP3) along the Yare riverbank to the PROW leading to Thorpe St Andrews (Postwick FP4).

Opportunities

- A significant section of the route uses existing PROW or land owned by Norfolk County Council or the Environment Agency.
- There is good rail access via Brundall Gardens Station, which is connected to Norwich and Great Yarmouth.

Risks

- There is potential for a new development to the area west of the existing housing allocation on Cucumber Lane. Consultation with developers will be required to approve a route around or through any developments to Cucumber Lane.
- The Environment Agency may not allow the use of their land for a circular walk or link along the riverbank. Further consultation with the Environment Agency is required in the project development stage.
- The landowners involved in the project may not allow access through their land.

- A permissive path by extending the PROW along Yare riverbank, from the EA angling sites to the PROW from Thorpe St Andrews may not be possible. The monetary cost of land purchase for this link is likely to be significant.
- The Norfolk County Council Highways Section require consultation on PROW creation.
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. Potential organisations for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, are Brundall Parish Council, Broadland District Council and Norfolk County Council.

Justification

- It will provide a walking route from the new developments in Brundall to the Brundall community allotments, Yare River and angling sites. Hence it supports communities through furthering healthy living, greater opportunities for social interactions and increased access to green spaces (Policy 7 in JCS, 2014).
- The project was suggested in consultation with Brundall Parish Council and supports the policy's in their neighbourhood plan, e.g. to create better walking links across the north-west and south of Brundall.
- It makes space for wildlife, Theme 2 of GI Strategy (GNBP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors to an area of relatively higher visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.

Project 14: South-East Lingwood GI Connectivity Project

Description

- Part 1: There is potential to improve access links and wildlife connectivity from South Burlingham and Beighton to the new development site to the South-East of Lingwood. This includes a permissive path agreement, the gapping of hedgerows and woodlands, and potential woodland enhancement on the Dairy Farm woodland.
- Part 2: Between Lingwood and South Burlingham there is a fast and masked bend, which is dangerous for walkers, on the Norwich Road. There is potential to create a safe walking route around the corner, inside the edge of the Norfolk County Council (NCC) Corporate Property Team tenant-let field, providing improved walking links between the two settlements.

Opportunities

- The project is on land owned by the NCC Corporate Property Team.
- The tenants of the field, where the dangerous corner is located, are willing to create a safe walking link. The corner is connected with an existing PROW to Beighton (Burlingham FP8).
- It is a GI corridor lined with hedgerows and passes a planted woodland on a Dairy Farm. The Dairy Farm woodland plans were made by Norfolk County Council.

Risks

- A permissive agreement or PROW, as well as hedgerow and woodland enhancement along the walking link may not be possible with the existing tenants. Further discussion is required with the NCC Corporate Property Team and the tenants.
- The potential new walking route requires a full ground survey into the best route.
- The Dairy Farm requires consultation in regards to potential woodland enhancement and links.
- The route passes the primary school. The school requires further consultation to find out the nature of the security of children (e.g. fencing).
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. A potential organisation for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, is Norfolk County Council.

Justification

- It has the potential to increase connectivity for people and wildlife, including between the new development on the east of Lingwood with South Burlingham and Beighton, by providing a safe and direct link (this meets the aims of Theme 3 in GNDP, 2007).
- Lingwood-Burlingham Parish Council suggested the project, demonstrating local resident support.
- It makes space for wildlife, Theme 2 of GI Strategy (GNDP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors to an area of relatively higher visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.

Project 15: Strumpshaw Pit Circular Walking Route

Description

There is potential to expand the dog walking capabilities of Strumpshaw Pit, which is owned by Norfolk County Council. This could be achieved through additional parking, which would increase the distance that dog walkers travel. In addition, cycle rack provision will provide for other users. The existing site includes a circular walk around a closed landfill site with various wildflowers growing and it is commonly used by dog walkers, but is not fully accessible.

- Part 1: Consultation with Norfolk County Council Closed Landfill Section has highlighted that formalising access to the site and encouraging more people on to the landfill site requires improvement to the landfill gas infrastructure. This includes transferring existing above ground infrastructure underground and additional fencing in the area of the gas management plant.
- Part 2: The improvement of parking facilities for cars and bicycles and the addition of benches and dog bins is required. This would encourage greater use of the site by dog walkers and other users for recreation and include a new car park next to the main entrance from Mill Hill. The car park, with cycle rack provision, would require fencing to allow dogs to be let off leads when using the site. The addition of dog bins is required to decrease the likelihood of dog waste being left around the site.

- Part 3: Improvement of the circular walk and links to the entry points will enhance the visitor experience. The delivery of the circular route is provided within this project, but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pub, restaurant and cafes).
- Part 4: There is potential for biodiversity improvements along the path e.g. an improved hedgerow along the south side of the site. This will be considered with consideration to visitor experience.

Opportunities

- The site is owned by Norfolk County Council.
- It is already used by dog walkers, a key target group of the plan, but with limited accessibility. Therefore, improvements have the potential to meet a significant objective of the plan.
- The site has no statutory designations and is away from the areas with designations.
- There are existing links via PROW to Strumpshaw and Lingwood from the site.

Risks

- Requires further consultation with Norfolk County Council Closed Landfill Section.
- Car park location requires consultation with Norfolk County Council Highways Section.
- Potential health related risks of a closed landfill site need sufficiently mitigating (e.g. pipes being underground and infrastructure fenced off).
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The long-term maintenance of new GI will be determined in the project development stage. A potential organisation for the long-term maintenance, following possible short-term maintenance funding e.g. Section 106, is Norfolk County Council.

Justification

- There are limited opportunities for off-road dog walking in the East Broadland area away from designated sites. Hence, it would encourage residents to travel away from sensitive sites to walk their dogs, if well promoted.
- This site is in walking distance of and has good access links to Strumpshaw and Lingwood, where there are potential new development sites.
- It makes space for wildlife, Theme 2 of GI Strategy (GNDDP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors to an area of relatively higher visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.

Project 16: Community-based Management Organisation

Description

The creation of a community-based management organisation that will achieve and provide the maintenance for the GI projects highlighted in this plan. This could be achieved through establishing project officer positions with responsibilities of initiating and bringing together a series of local volunteer groups and stimulating local resident, Parish Council and other organisations support. This could be facilitated through the creation of a 'Friends of Broadland GI Group', including the project officers, tasked with overseeing a series of local GI groups.

The remit of the group would be for the East Broadland or Broadland District area and have an overarching project evaluation and monitoring role.

Opportunities

- There are a large number of local community and conservation groups or organisations operating in the Broadland District with great amounts of local knowledge and experience of setting up groups and working with volunteers, which would be valuable for successful implementation.

Risks

- Requires consultation with and the involvement of local community and conservation groups.
- A Habitat Regulation Assessment (HRA) screening is required for the project to measure the potential and combined impacts of the projects and other plans against the conservation of one or more Natura 2000 sites in the East Broadland area. Norfolk County Council's Environment Team and Natural England are willing to be consulted for carrying out this screening exercise.
- The aim is that the management organisation will be self-sustaining following initial start-up. However, should long-term maintenance be required beyond the project timescale, this will be determined in the project development stage. A potential organisation for the long-term maintenance is Broadland District Council.

Justification

- It provides a management structure for delivering and maintaining GI in a sustainable way that will provide environmental and community benefit.
- It makes space for wildlife, Theme 2 of GI Strategy (GNDDP, 2007), by safeguarding valued and sensitive wildlife sites by drawing visitors to areas of relatively higher visitor carrying capacity, while facilitating managed access for education and enjoyment of the natural environment.

7. Action Plan

The projects were proposed in a key stakeholder consultation meeting which included Norfolk County Council's Environment Team, Norfolk County Council's Corporate Property Team, Broadland District Council and Natural England. The Broads Authority were unable to attend the meeting. At this meeting, there were 15 projects proposed and examined. Thirteen of the projects proposed at the meeting were later given approval for inclusion in action plan (Projects 1-8 and 10-14). The projects removed from the prioritised list are project numbers 17 and 18 in the full list of projects (see Section 10.4). Following this meeting, project numbers 9, 15 and 16 were added, relating to the circular walk at Strumpshaw Pit, Cremer's Meadow GI enhancements, and a community-based management organisation, while amendments were made to other projects, particularly Project 3 regarding the Burlingham Attractions.

Please note: the estimated project costs (below) are indicative and will be advanced further in the project development stage to determine definitive costs for individual elements of each project.

Table 1: Project Implementation Details

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
1	<p>Acle Lands Trust Woodlands Access and Connectivity Project</p> <p>The proposed project includes:</p> <ol style="list-style-type: none"> 1. An improved gateway and signage at the entrance of Roman Wood, to allow cutting equipment onto the site and increase visibility from the road. 2. A path is required to replace the boardwalk in Damgate Wood for visitors. This will also allow Environment Agency to carry out ditch maintenance work. There is potential to use hoggin as a foundation with chippings on top for the path. 3. To ensure there is disabled access onto both the Damgate Wood and Roman Wood sites. 4. There is prospect for improving the access links and signage through and between Roman Wood, New Road Land, Damgate Wood and the Weavers Way. Between Damgate Wood and the Weavers Way, there is the possibility of small sections of recycled plastic boardwalk to improve the path to avoid waterlogged ground. 	Acle Lands Trust	Broadland District Council, Norfolk County Council, Acle PC	2017-18	180,000	S106, CIL	This will result in clearly signed and accessible woodlands for residents of Acle, including from the new developments, and for commuters to and past Acle. There will be good and disabled access for woodland walking with signed links to/from the Weavers Way Norfolk Trail. Collaborative working with other conservation groups will be encouraged through shared equipment provision.

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
	<p>5. The formalisation of routes from new developments to the woodlands through signage and ensuring a clear path is key. Roman Wood and Damgate Wood are opposite development sites. As highlighted in the Acle Neighbourhood plan, the Parish Council is planning a crossing point over the A1064 near Hermitage Close providing new homeowners with walking access to the Roman Wood site. For Damgate Wood, there is potential to improve the link past Acle train station to the wood. Further inspection and consultation of the routes are required.</p> <p>6. Provision of a compact tractor with implements attached for chipping, grass cutting, and other work to open up the paths and manage the meadow areas more effectively and frequently. Alternatively, if not possible, individual equipment provision, such as a large reciprocating mower and chipper would increase capacity. There is the possibility to buy shared equipment, as other stakeholders e.g. South Walsham Parish Council and the Friends of Cremer's Meadow in Brundall require the use of equipment.</p> <p>7. Formalise a Damgate Wood Circular Walk with links to facilities. The delivery of this circular route is provided within this project, but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pubs, restaurant and cafes). The route would go from Reedham Road through Damgate Wood to the Weavers Way, then back along Damgate Lane and north on Reedham Road into Acle. Signage of the walk will be part of this project, but assisted by Project 6.</p>						
2	<p>Burlingham Trails Cycling and Walking Routes</p> <p>There is significant potential for improvements to the Burlingham Trails, by providing formalised cycling and walking routes, further connecting the trails with nearby settlements e.g. Acle, North Burlingham and South Walsham. This includes: new signage (to/from and on the trail), the delivery of the circular walking route which is provided within this project but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pub, restaurant and cafes), interpretation boards promoting the trails and the local environment (e.g. local farming practices), potential for an augmented reality app, new car parking provision (potential locations include: Dell Corner Lane, Green Land or an extension to St Andrew's Church car park), works on the proposed</p>	Norfolk County Council Environment Team	Norfolk County Council's Corporate Property Team, Broadland District Council	2017-19	180,000	S106, CIL	There will be well used cycling and walking routes linking to the settlements and new developments north of the A47. There will be sufficient car parking provision in two locations for visitors. The cycle and walking trails will be used by boating and other tourists e.g. those that moor at Acle Bridge.

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
	cycling route to bring it up to a cycle-friendly standard, potential for planting hedgerows and trees along the Burlingham Trails, a new cycleway from Acle Bridge to Acle to provide tourists (e.g. boats) with cycle access to the trails and a crossing point for pedestrians, cyclists and horse riders at the intersection of Newport Road and Green Lane. This could include a warning system or sign for cars.						
3	<p>Burlingham Trails Attractions and Facilities Project</p> <p>In order to attract people to the Burlingham Trails, there is potential to create a number of recreational areas and facilities for visitors:</p> <ol style="list-style-type: none"> 1. Friends of Burlingham Woods: To establish a volunteer group to help to manage and promote the Burlingham woodlands and trails. A potential barrier to the expansion of the Burlingham woodlands is the limited resources available to manage the woods. An initial step is to create a paid Project Co-ordinator post for the initial 3 years of the project. Their role would include the facilitation and co-ordination of a 'Friends of Burlingham Woods' volunteer group and the production of a sustainable woodland management plan (working alongside Norfolk County Council's Environment Team staff and Land Agent). This will include increasing wildlife corridors, highlighting potential areas to extend the Burlingham Woodlands and a poplar rejuvenation project, including the active removal and replacement of poplars with a variety of trees for Climate Change resilience. The role would also involve developing local networks and partnerships with other groups involved in countryside management in the study area and with groups involved in health promotion and education through outdoor activities. 2. A disabled access and cycle circular at Jubilee Wood linking the West-Acle (Mill Lane) development site to Jubilee Wood using the inside of the field edge, then through the wood South, then East along the A47 sliproad (Norwich Road), which may require improvement, North along the Western edge of the development site. The delivery of this circular route will be achieved through this project, but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pub, restaurant and cafes). 	Norfolk County Council Environment Team	Norfolk County Council's Corporate Property Team, Broadland District Council	2017-20	240,000	S106, CIL, HLF, Arts Council	There will be a new mobility and cycle access circular route, with links to the West Acle new development. There will also be a volunteer group helping to manage the Burlingham woodlands and trails in collaboration with Norfolk County Council through a consistent long-term management plan. There will be increased GI corridor connectivity for wildlife and sufficient informal recreation space for visitors. There will be an increased variety woodland species covering a greater area, which will encourage the biodiversity to flourish and improve the resilience of the woodlands to the impacts of climate change.

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
	<p>3. Potential for an informal recreation area in the field East of Jubilee Wood, by planting short wildflower mix for visitors and wildlife.</p> <p>4. Planting a new woodland to form part of the Burlingham Trails network, extending the GI corridors and green spaces for wildlife and people. A potential site (as noted in Appendix 9 of the GI Delivery Plan (TLP, 2009)) is at Burlingham Road, South Walsham, forming part of a programme for the re-creation of former woodlands to the north-east of Norwich, with the objectives of opening the woods for public access, growing quality hardwoods and enhancing the wildlife value of the broader area. The project embraces sound management, in order that the woodlands offer the fullest potential to wildlife. Enhancements to public rights of way to reinforce the network of Burlingham Woodland Walks. Project aspects include:</p> <ul style="list-style-type: none"> • New woodland of 3.5ha (2500 trees), including an orchard of 30 trees. • Access path to link with existing routes. • Interpretive material. • Community engagement and involvement • Tactile sculptures. • New benches <p>5. An improved car parking and provision of other facilities e.g. toilets. There is potential for a new car park at either Dell Corner Lane or in the field corner where Green Lane meets the Newport Road. If the Green Lane option was taken forward, there would be the possibility of a flood mitigation planting area north of the car park, to reduce floodwater build-up in the low lying section of Green Lane. In addition, there is potential for an extension to St Andrew's Church car park, north of the existing area. The provision of composting toilets and a cafe at St Andrews car park for the church and visitors would provide facilities to encourage longer visits and enhance the experience. Initial piloting of the café could be done using a mobile coffee shop or van.</p> <p>6. New interpretation facilities such as information boards and possibly an 'augmented reality' app.</p> <p>7. Create an Environmental Sculpture trail by commissioning new artworks to supplement the existing sculptural sundials on the Burlingham Walks.</p>						

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
	8. Improved waymarking to the Burlingham Trails from the main roads and key settlements, including signage to and at the entry points and facilities. For example, there is potential for signage directing passing traffic from the A47 to the North Burlingham woodland walks and an improved entrance to the car park next to St Andrew's Church through vegetation management and signage to create a clear gateway.						
4	<p>Long Distance Cycle Loop</p> <ol style="list-style-type: none"> 1. An East Broadland long distance cycle loop that links through settlements and passes train stations around the East Broadland area, which includes spurs off the main route to points of interest and additional settlements. The aim is to link the route to the Norwich Pedalways and the Broadland Way, while train stations will provide good access links to/from Norwich and Great Yarmouth. Feasibility study is required to examine the potential of an off-road cycling section from Great or Little Plumstead to Norwich, expected to cross the NDR at Middle Road, which includes cycleway continuation along Water Lane. An indicative map of the loop is displayed in Section 10.3. 2. There is potential to promote the use of the East Broadland cycle loop through mapping and use of promotional media to show exemplar cycling possibilities. These might include: <ol style="list-style-type: none"> a) The cycle link from Acle to Norwich (created by the East Broadland cycle loop). b) A Yare Valley cycle circular route. This would combine the existing Yare Valley cycle route from Norwich to Reedham, cross the river using the Reedham ferry, then use the East Broadland cycle loop route to link back to Norwich. c) Promotion of small sections of the East Broadland cycle loop to give examples of manageable cycling routes suitable for a target user group (e.g. a cycle section between two train stations that has facilities for families). <p>Note: The routes and details of the project are indicative and will be determined in the project development stage. The routes should not increase visitor impacts on internationally designated sites, specifically on Strumpshaw Fen.</p>	Norfolk County Council Environment Team	Norfolk County Council's Corporate Property Team, Broadland District Council, RSPB	2018-19	75,000	S106, CIL	An expanded and well-connected cycle network linking the East Broadland settlements together and the creation of a safe cycling route to Norwich from Acle and other communities. The connections to a number railway stations will enable families and other leisure users to use sections of the circuit to suit their abilities and needs.

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
5	<p>A47 Safe Pedestrian and Cycle Crossing</p> <p>A safe foot and cycle crossing over the A47 between Lingwood and North Burlingham. This will provide a vital link between the settlements and the Burlingham Trails to the north and south of the A47, as the fast road severs access for active transport, while it is difficult for cars to cross. The 2015-2021 A47 dualling plans for the Blofield and Burlingham section will increase the severance effect. This crossing would provide a way to integrate communities on both sides of the road, whereby at present pedestrian crossings are at Blofield and Acle. North of the Blofield crossing, there is currently no formal walking link (see Project 8).</p>	Norfolk County Council	Norfolk County Council's Corporate Property Team, Broadland District Council, Department for Transport, Highways England	2015-2021	725,000-1,265,000	S106, CIL, Department for Transport Dualling Fund	There will be a crossing point over the A47 for pedestrians and cyclists in a central location within the East Broadland area, linking settlements and developments to the north and south. This will be encouraged by better connected trails, providing greater opportunity for the Lingwood side of the trails in the future.
6	<p>Local Walking Circulars with links to pub, restaurant and cafes</p> <p>A series of walking circulars with links to cafés, restaurants and pubs, using existing and newly created routes. This will direct walkers (including dog walkers) along scenic routes away from sensitive sites and with provision of facilities. The project will include both route creation and promotion (see also Project 7). The delivery of this project is independent from the potential routes highlighted, as their establishment will vary in timescales, location and funding. The routes for delivery will be re-examined in the development stage. These include the following circulars:</p> <ol style="list-style-type: none"> 1. Strumpshaw and Lingwood Circular Walk The southern loop around Strumpshaw Pit will be delivered in Project 15 (Strumpshaw Pit) and the northern loop is maintained by Norfolk County Council as part of the existing Burlingham Trails. This project is responsible for the delivery of the route, signage and promotion, in particular, signage to pubs, restaurants and cafes. 2. South Walsham Circular Walk The walk will be delivered as part of Project 12 (South Walsham GI). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes. 3. Jubilee Wood Disabled Access Circular Walk The walk will be delivered as part of Project 3 (Burlingham Trails Attractions). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes. 	Norfolk County Council Environment Team	Broadland District Council, Norfolk County Council's Corporate Property Team, Burlingham-Lingwood PC, South Walsham PC, Acle PC, Brundall PC, Blofield PC, Acle Lands Trust	2017-18	35,000	S106, CIL, Parish Councils	There will be a series of well-used circular walks, in particular by dog walkers, away from sensitive sites that provide a Broads-type experience with facilities. As a result, breeding birds and other sensitive wildlife populations will be flourishing in the East Broadland area.

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
	<p>4. Burlingham Trails Circular Walk The walk will be delivered as part of Project 2 (Burlingham Trails Cycling and Walking Routes). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.</p> <p>5. Damgate Wood Circular Walk The walk will be delivered as part of Project 1 (Acle Lands Trust Woodlands). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.</p> <p>6. Weavers Way Circular Walk 10 (via Acle and Upton) The walk is an existing route maintained by Norfolk County Council. This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.</p> <p>7. Blofield and Brundall: Exploring Broadland Circular Walk The walk is an existing route promoted by Broadland District Council and potential route delivery and signage is included within Project 9 (Cremer's Meadow) and Project 10 (The Witton Run). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.</p>						
7	<p>Promoting GI links and spaces</p> <p>A significant promotion project to communicate local and regional green infrastructure links and open spaces for cycling, walking and horse-riding to new homeowners, local communities and tourism away from sensitive wildlife sites.</p> <ul style="list-style-type: none"> Part 1 - Create a new homeowner's welcome pack that will be given to new homeowners when moving in. <ul style="list-style-type: none"> An "Early Bird" welcome pack will be created to highlight existing GI in the local vicinity and East Broadland for immediate distribution to homeowners that have moved into new developments. This will prevent habits of recreation in sensitive wildlife sites being established. A "Standard" welcome pack will be delivered with an updated and full inclusion of existing and newly created GI in the local and regional area. 	Broadland District Council	Norfolk County Council, Broads Authority, RSPB, NWT, East Broadland Area Parish Councils.	2017-20	25,000	S106, CIL	There will be a significant increase in the proportion of residents, especially new homeowners, going to areas with a relatively higher visitor carrying capacity for their recreation. These areas will be away from sensitive wildlife sites.

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
	<ul style="list-style-type: none"> ○ Potential GI for promotion will be examined further in the project development stage. Suggestions for potential inclusion are: <ul style="list-style-type: none"> - Burlingham Trails Walking and Cycling Routes - The East Broadland Long Distance Cycle Loop - The Acle to Norwich Cycle Route - Yare Valley Cycle Circular - RSPB (Strumpshaw) woodland and wetland led cycle rides - The Tour de Broads cycle routes - Fairhaven Gardens - RSPB Strumpshaw Reserve - NWT Upton Walking Guides - 6 South Walsham walks made by Natural England in consultation with South Walsham Parish Council. - Circular walks with links to pubs, cafes and restaurants - A guide to finding local parish allotments - Improve and promote the Wherry Line Railway Rambles to encourage people to take the train and walk between stations. - Create a guide to settlements in the East Broadland area and promote them by attributing local identity to each place e.g. dragonflies to represent Upton. • Part 2 - Website and social media <ul style="list-style-type: none"> ○ Work with Local Authorities, Parish Councils and tourism organisations to promote new and existing GI using websites and social media. ○ Other media channels are recommended to complement this, such as through events promotion and the monthly inclusion of a circular walk in the Broadsheet. • Part 3 - Booklets and leaflets <ul style="list-style-type: none"> ○ Potential to work with different stakeholders to accumulate and create a unified local walking and cycling routes booklet. ○ Produce and distribute leaflets and booklets relating to local GI in the study area to give to local Tourist Information Centres, Schools, Libraries, etc. ○ A leaflet promoting Broads-type experiences in the locality away from sensitive sites. • Part 4 – Signage <ul style="list-style-type: none"> ○ New and improved signage, including: 						

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
	<ul style="list-style-type: none"> - The long-distance cycle route with links to adjacent settlements and points of interest waymarked. - From train stations and other visitor hotspots to local GI (e.g. signage from Acle train station to Damgate Wood). - A clearly waymarked route from new developments to local GI. 						
8	<p>Link from Blofield to Blofield Heath</p> <p>Conduct a feasibility study into the creation of a link between Blofield and Blofield Heath. This would provide a crossing point over the A47 with the potential further links from Blofield Heath East to the Burlingham Trails and West to the 'Plumsteads'. Since Blofield has good PROW links to the settlements south of the A47, it would be key in integrating the communities both north and south. A potential route could follow north from the new development sites in Blofield over the A47 using the bridge with an existing path, then along a new path by the side of road which turns right onto Bullacebush Lane and then left onto Ranworth Road until it joins with the pavement in Blofield Heath. In the project development stage, a feasibility study will investigate the possible routes and costs and involve landowner consultation to identify the best route.</p>	Norfolk County Council Environment Team	Blofield PC, Broadland District Council	2018-19	5000 (feasibility) + 120,000	S106, CIL, Parish Councils	There will be a walking link between Blofield and Blofield Heath, well-used by residents in the nearby settlements to cross the A47. There will be a decreased reliance on car journeys and empowerment for living more sustainable and healthier lifestyles.
9	<p>Cremer's Meadow GI Project</p> <p>Cremer's Meadow is comprised of over 4 acres of land (owned by Brundall Parish Council). Their policy for the site is to preserve it as a wildlife and nature reserve that is open to recreational activities that enable people to experience and learn about the natural environment in a way that does not conflict with conservation.</p> <ol style="list-style-type: none"> 1. There is potential to work with the Friends of Cremer's Meadow to undertake biodiversity enhancement and conservation activities throughout the site. 2. There is potential to create and formalise public access around the site to encourage local residents to enjoy and learn about the natural environment. This could include a new path, signage, interpretation, and benches. This would work in conjunction with the Witton Run GI Project (Project 10) and the Circular Walks Project (Project 6) forming part of a link across the middle of the Blofield and Brundall: Exploring Broadland Circular Walk. 	Brundall Parish Council	Friends of Cremer's Meadow, Broadland District Council, Norfolk County Council Environment Team	2018-19	25,000	S106, CIL, Parish Councils	There will be a flourishing biodiversity across a well-managed meadow which is used widely by local residents to enjoy and learn about their natural environment.

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
	3. There is potential for shared equipment provision (linked to the Acle Lands Trust Woodlands, Burlingham Attractions and South Walsham GI projects).						
10	<p>Witton Run GI Project</p> <p>The Witton Run is a crucial green infrastructure corridor in the East Broadland region. There is significant potential to use this corridor to increase access links around Blofield and Brundall, so it follows the Witton Run more closely and connects the existing GI between the Yarmouth Road and St Michael & All Angels, Braydeston. The different aspects for delivery include:</p> <ol style="list-style-type: none"> 1. Footpath improvement alongside the Yarmouth Road between the PROW (Postwick FP6) and Frogs Hole. 2. Completion of access alongside the Witton Run. It would require buying land or negotiating a permissive access agreement over two sections of land, continuing the path between Blofield and Brundall. 3. Potential for walking links from the new Brundall and Blofield developments to be formalised through signage, e.g. from the end of Berryfields to the PROW (Brundall FP2). 4. To formalise a double-looped circular walk based on the existing Blofield and Brundall: Exploring Broadland Circular Walk (promoted by Broadland District Council) through route improvement and signage. The walk will facilitate its inclusion as part of the local walking circulars with links to pub, restaurant and cafes (Project 6). 5. Links with existing Brundall Parish Council GI, including Brundall Memorial Hall's recreational space and provision of passage around the edge of Cremer's Meadow (Project 9). 6. The project should be beneficial in terms of the management of the Witton Run, water quality, ecological connectivity and climate change resilience. Negative impacts on water quality should be mitigated, especially due to the potential impact on Strumpshaw Fen. This will be examined further in the project development stage. 	Norfolk County Council Environment Team	Brundall PC, Blofield PC, Broadland District Council, RSPB	2018-19	170,000	S106, CIL, Parish Councils	There will be a better connected GI corridor with access for the public along the Witton Run, access around the edge of the Cremers Meadow site and multiple benefits for wildlife.

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
11	<p>Great Plumstead Open Space/Community Orchard Walk</p> <p>There is potential to create open space or an orchard walking area in the field to the East of Great Plumstead, behind Rosebury Road on land which is owned by Broadland District Council. The 'Plumsteads' Neighbourhood Plan proposed the site for approximately 33 affordable and downsizing-category homes which could form part of the plan. The eastern half of the field has potential for community space, as it a mains gas pipeline runs underneath the area inhibiting development, but not other uses. There is potential for a circular walking route around this area which could provide additional recreational benefit for local residents, including dog walkers, away from sensitive sites and close to a potential new development.</p>	Broadland District Council	Great and Little Plumstead PC	2019-20	25,000	S106, CIL	There will be new open green space area or an orchard in Great Plumstead that is used frequently by local residents.
12	<p>South Walsham GI Project</p> <p>The project for delivery will be examined further in the project development stage. The different aspects of the prospective project includes:</p> <ul style="list-style-type: none"> Part 1: Potential footpath along School Road (South Walsham) from Fairhaven Primary School to Pilson Green, forming a key safe link between South Walsham and Pilson Green. Plans for the delivery of the footpath are expected to be carried out by Norfolk County Council in early- to mid-2016. This will extend the safe walking links between Pilson Green, Upton and Acle to South Walsham, passing Fairhaven Gardens and Fairhaven Primary School. Part 2: There is potential for a figure of eight circular walk that will link settlements with the South Walsham marshes, passing a new community GI space (see Part 3). This will draw people away from statutory designated marshes that are to the north and south. The delivery of the circular walk will be provided through this project, but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pubs, restaurant and cafes). Part 3: The area of a Norfolk County Council Corporate Property Team field, to the west of the PROW on School Road (South Walsham FP5), could potentially become a mixed-use community space with a car park. A car park entrance may require a small portion of land to the east side of the PROW (South Walsham FP5) due to vegetation. This would require land acquisition. 	South Walsham PC	Norfolk County Council's Corporate Property Team, Norfolk County Council Environment Team, Broadland District Council	2017-18	150,000	S106, CIL, The Prince's Countryside Fund, Broadland Community Grants, Broadland Community Renewables, The Norfolk Community Foundation, Parish Councils	This will be a figure of eight circular walk that takes walkers over the marshes providing a Broads experience without damaging sensitive wildlife sites. Additionally there will be the provision of a safe walking link to the primary school and mixed-use community space, including a car park.

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
13	West Brundall GI Project <ul style="list-style-type: none"> Part 1: Potential walking links to the west of Brundall: <ol style="list-style-type: none"> Connect the new developments north-west of Brundall, through the existing Norfolk County Council, Corporate Property Team community woodland walk, with Brundall Gardens Station, the Parish Council allotments and Brundall village centre. Continue the link from the new developments to the Witton Run PROW, via the cemetery or Berryfields connecting to the north-east Brundall PROW network (See Project 10). A link from Brundall Gardens station and/or from the Parish Council allotments to the existing PROW (Postwick FP3) leading to the Environment Agency (EA) angling sites on the Yare riverbank. This may require formalising the permissive agreement along the south side of the railway track. Create a circular walk around the Environment Agency land by the Yare River. Part 2: Continue the PROW from the EA angling sites (Postwick FP3) along the Yare riverbank to the PROW leading to Thorpe St Andrews (Postwick FP4). 	Norfolk County Council's Environment Team	Brundall PC, Norfolk County Council's Corporate Property Team, Environment Agency, Broadland District Council	2018-20	75,000 (Part 1) + 350,000 (Part 2)	S106, CIL, Parish Councils	There will be a circular walk by the Yare River with angling facilities which are connected to the west of Brundall houses, community allotments and new development sites. There will be access via Brundall Gardens Station for visitors from larger settlements e.g. Norwich. There will be a continued walking link to Thorpe St Andrews along the river.
14	South-East Lingwood GI Connectivity Project <ul style="list-style-type: none"> Part 1: There is potential to improve access links and wildlife connectivity from South Burlingham and Beighton to the new development site to the South-East of Lingwood. This includes a permissive path agreement, the gapping of hedgerows and woodlands, and potential woodland enhancement on the Dairy Farm woodland. Part 2: Between Lingwood and South Burlingham there is a fast and masked bend, which is dangerous for walkers, on the Norwich Road. There is potential to create a safe walking route around the corner, inside the edge of the Norfolk County Council (NCC) Corporate Property Team tenant-let field, providing improved walking links between the two settlements. 	Norfolk County Council's Corporate Property Team, Norfolk County Council Environment Team	Broadland District Council, Lingwood-Burlingham PC	2018-19	25,000	S106, CIL, Parish Councils	There will be greater connectivity for wildlife and people between Lingwood and South Burlingham or Beighton, through a walking link and an increased variety of hedgerows and trees.

No.	Project Description	Lead Organisation	Partner Organisations	Provisional Timescales	Estimated Costs (£)	Possible Funding Streams	Successful Implementation
15	<p>Strumpshaw Pit Circular Walking Route</p> <p>There is potential to expand the dog walking capabilities of Strumpshaw Pit, which is owned by Norfolk County Council. This could be achieved through additional parking, which would increase the distance that dog walkers travel. In addition, cycle rack provision will provide for other users. The existing site includes a circular walk around a closed landfill site with various wildflowers growing and it is commonly used by dog walkers, but is not fully accessible.</p> <ul style="list-style-type: none"> Part 1: Consultation with Norfolk County Council Closed Landfill Section has highlighted that formalising access to the site and encouraging more people on to the landfill site requires improvement to the landfill gas infrastructure. This includes transferring existing above ground infrastructure underground and additional fencing in the area of the gas management plant. Part 2: The improvement of parking facilities for cars and bicycles and the addition of benches and dog bins is required. This would encourage greater use of the site by dog walkers and other users for recreation and include a new car park next to the main entrance from Mill Hill. The car park, with cycle rack provision, would require fencing to allow dogs to be let off leads when using the site. The addition of dog bins is required to decrease the likelihood of dog waste being left around the site. Part 3: Improvement of the circular walk and links to the entry points will enhance the visitor experience. The delivery of the circular route is provided within this project, but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pub, restaurant and cafes). Part 4: There is potential for biodiversity improvements along the path e.g. an improved hedgerow along the south side of the site. This will be considered with consideration to visitor experience. 	Norfolk County Council Closed Landfill Section	Norfolk County Council Environment Team, Broadland District Council, Strumpshaw PC	2017-18	60,000	S106, CIL, Parish Councils	The site will be open to walkers with access across the site. The provision of car and cycle parking facilities will enable an increase in visitors, particularly dog walkers.
16	<p>Community-based management organisation</p> <p>The creation of a community-based management organisation that will achieve and provide the maintenance for the GI projects highlighted in this plan. This could be achieved through establishing project officer positions with responsibilities of initiating and bringing together a series of local volunteer groups and stimulating local resident, Parish Council and other organisations support. This could be facilitated through the creation of a 'Friends of Broadland GI Group', including the project officers, tasked with overseeing a series of local GI groups. The remit of the group would be for the East Broadland or Broadland District area and have an overarching project evaluation and monitoring role.</p>	Broadland District Council	Norfolk County Council	2017-2021	50,000	CIL, S106	A functioning management organisation with a series of lower tier volunteer and conservation groups aiding the delivery, evaluation and monitoring of projects and facilitating their maintenance.

8. Timescales for Delivery

The delivery of GI projects is dependent in terms of timing, location and resources on the new developments happening throughout the East Broadland area. Therefore, the estimated timescales for delivery highlighted in Section 7 (The Action Plan) are indicative, as delivery will occur as funds become available. For example, a project highlighted for immediate delivery may be delayed, due to a deferral on the Section 106 funding in that locality, while a project identified for later funding receives funding sooner and begins delivery before.

Further to this, the projects identified within this plan are expected to be split further into smaller independent projects during the project development stage by the lead partners. This will provide individual and standalone projects that are prepared for delivery to match the available funds. This is required for funding streams, such as S106, that are likely to be provided in small batches over a wider timescale, rather than an initial lump sum.

Please note: Where lead organisations have been identified within the GI Plan, agreement needs to be sought regarding project delivery, including timescales and project costs.

9. References

- A47 Alliance (2014) *Gateway to Growth: Business Case* [Updated June 2014] UK: New Anglia LEP and Greater Cambridge and Greater Peterborough EP.
- ABZAG (2015) Great Plumstead, Little Plumstead & Thorpe End Garden Village Neighbourhood Plan 2014-2034 (Referendum Version: May 2015). Norfolk: ABZAG.
- Acle Neighbourhood Plan Working Group (2015) *Acle Neighbourhood Plan* (Adopted Version: February 2015). Norfolk: Acle Neighbourhood Plan Working Group.
- AECOM (2015a) *A47/A12 Corridor Feasibility Study, Stage 3: The Case for Investment*. [February 2015 Report by AECOM for the Highways Agency] UK: AECOM.
- AECOM (2015b) *A47/A12 Corridor Feasibility Study, Stage 1: Review of Evidence and Identification of Problems along the Corridor*. [February 2015 Report by AECOM for the Highways Agency] UK: AECOM.
- Blofield Neighbourhood Plan Steering Group (2015) *Blofield Parish Neighbourhood Plan* (Pre-Submission Consultation Version: October 2015). Norfolk: Blofield Neighbourhood Plan Steering Group.
- Broadland District Council (2014) *Old Catton, Sprowston, Rackheath and Thorpe St Andrews Golden Triangle: Statement on Transport*. Norfolk: Broadland District Council.
- Brundall Neighbourhood Plan Working Group (2015) *Brundall Neighbourhood Plan* (Submission Draft: April 2015). Norfolk: Brundall Neighbourhood Plan Working Group.
- Edwards, V. and S. Knight (2006) *Understanding the Psychology of Walkers with Dogs: new approaches to better management*. Portsmouth: University of Portsmouth,
- English Nature (2005) Dogs, access and nature conservation. *English Nature Research Reports Number 649*. Peterborough: English Nature.
- GNDP (2007) *Green Infrastructure Strategy: A proposed vision for connecting people, places and nature*. Norfolk: GNDP.
- GNDP (2014) *Joint Core Strategy for Broadland, Norwich and South Norfolk* (Adopted March 2011, Amendments adopted January 2014). Norfolk: GNDP.
- GNDP (2015) *Joint Core Strategy for Broadland, Norwich and South Norfolk: Annual Monitoring Report 2014-2015* (December 2015). Norfolk: GNDP.
- GNGB (2015) *Greater Norwich Growth Board: Greater Norwich Infrastructure Plan*. Norfolk: GNGB.
- New Anglia LEP (2014) *New Anglia Strategic Economic Plan*. Norfolk: New Anglia LEP.
- Norfolk County Council (n.d.) *Burlingham Woodland Walks: Map and Guide*. Norfolk: Norfolk County Council.
- Norfolk County Council (2014) *Habitat Regulation Assessment (HRA) of Site Specific Allocation Document for Broadland*. [For Broadland District Council, August 2014] Norfolk: Norfolk County Council.
- Strumpshaw Parish Council (2014) *Strumpshaw Parish Council Neighbourhood Plan* (Adopted Version: July 2014). Norfolk: Strumpshaw Parish Council
- The Broads Authority (2011) *Broads Plan 2011: A strategic plan to manage the Norfolk and Suffolk Broads*. Norwich: Broads Authority.
- TLP (2009) *Greater Norwich Green Infrastructure Delivery Plan*. Norfolk: TLP.

10. Appendices

10.1 Glossary of Terms

AMR - Annual Monitoring Report

BADCOG - Blofield & District Conservation Group

CWS - County Wildlife Sites

EA - Environment Agency

GI - Green Infrastructure

GIPA - Green Infrastructure Priority Areas

GIS - Geographical Information Systems

GNDP - Greater Norwich Delivery Partnership

GNGB - Greater Norwich Growth Board

GNIP - Greater Norwich Infrastructure Plan

HRA - Habitat Regulation Assessment

JCS - The Joint Core Strategy for Broadland, Norwich and South Norfolk

LDF - Local Development Framework

NCC - Norfolk County Council

NDR - Norwich Northern Distributor Road

New Anglia LEP - New Anglia Local Enterprise Partnership

NPA - Norwich Policy Area

NPPF - National Planning Policy Framework

NWT - Norfolk Wildlife Trust

PROW - Public Rights of Way

RAMSAR - Convention on Wetlands of International Importance Especially as Waterfowl Habitat

RSPB - Royal Society for the Protection of Birds

SAC - Special Areas of Conservation

SPA - Special Protection Areas

SSSI - Sites of Specific Scientific Interest

TLP - The Landscape Partnership

10.2 Opportunity Mapping

Figure 4: Existing GI in the East Broadland area

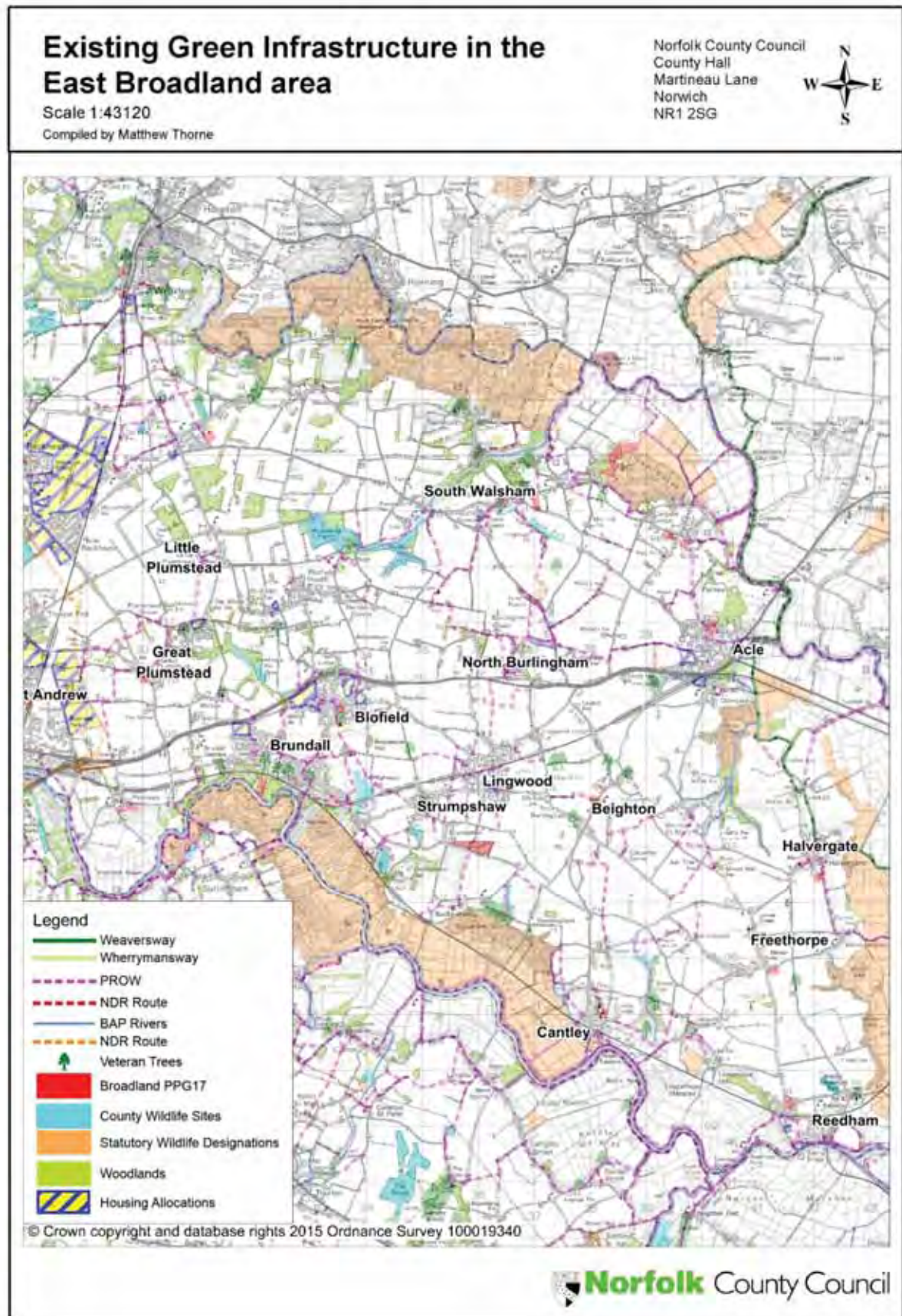
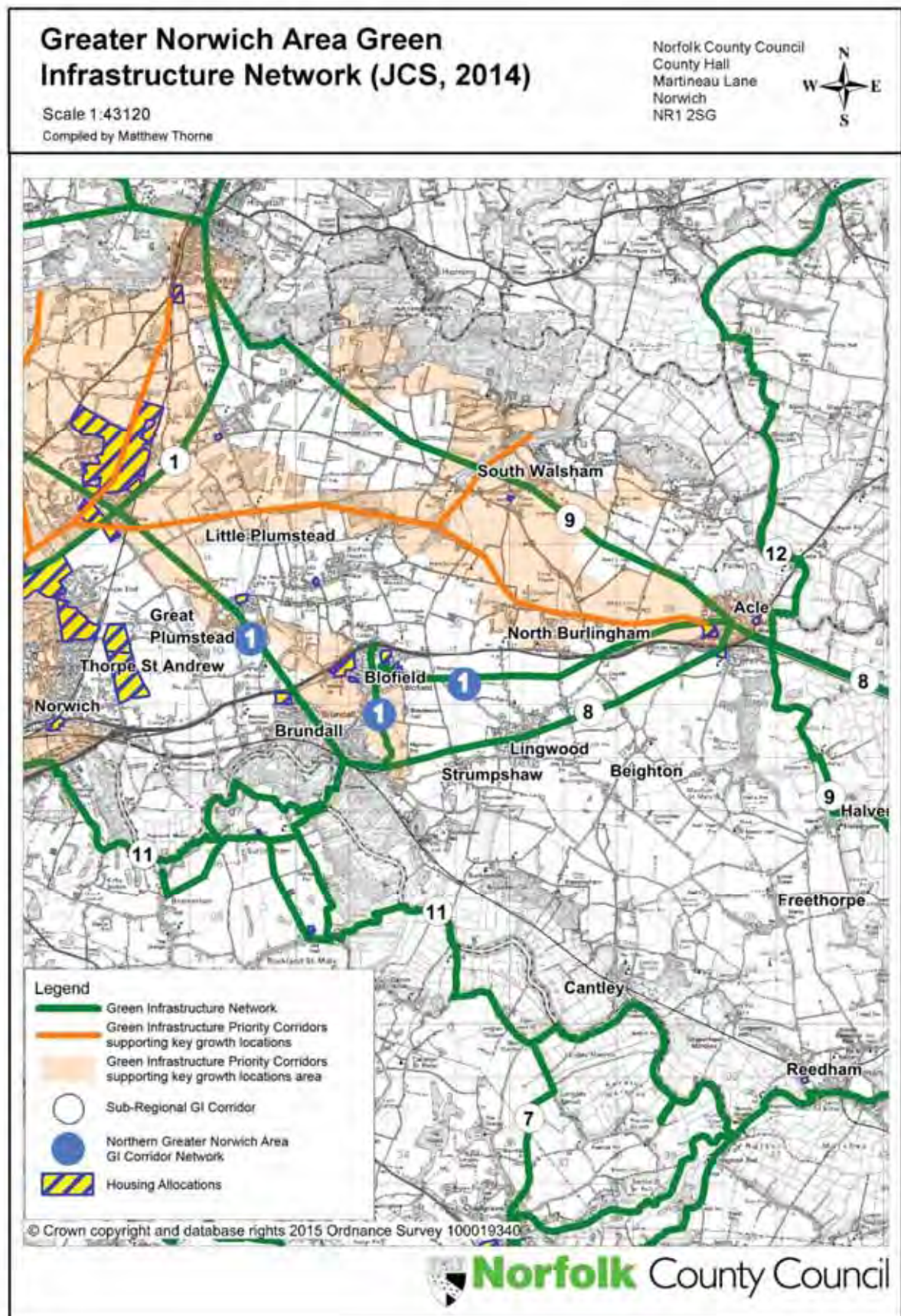


Figure 5: Strategic GI Corridors in the JCS (2014)



10.3 Project Mapping

The maps that follow relate to the projects specified in Section 6.2. The proposed GI routes and areas are indicative of the final projects. Refinement of the project details and locations will be undertaken in the project development stage, following landowner consultation and HRA screening.

Compiled by Matthew Thorne

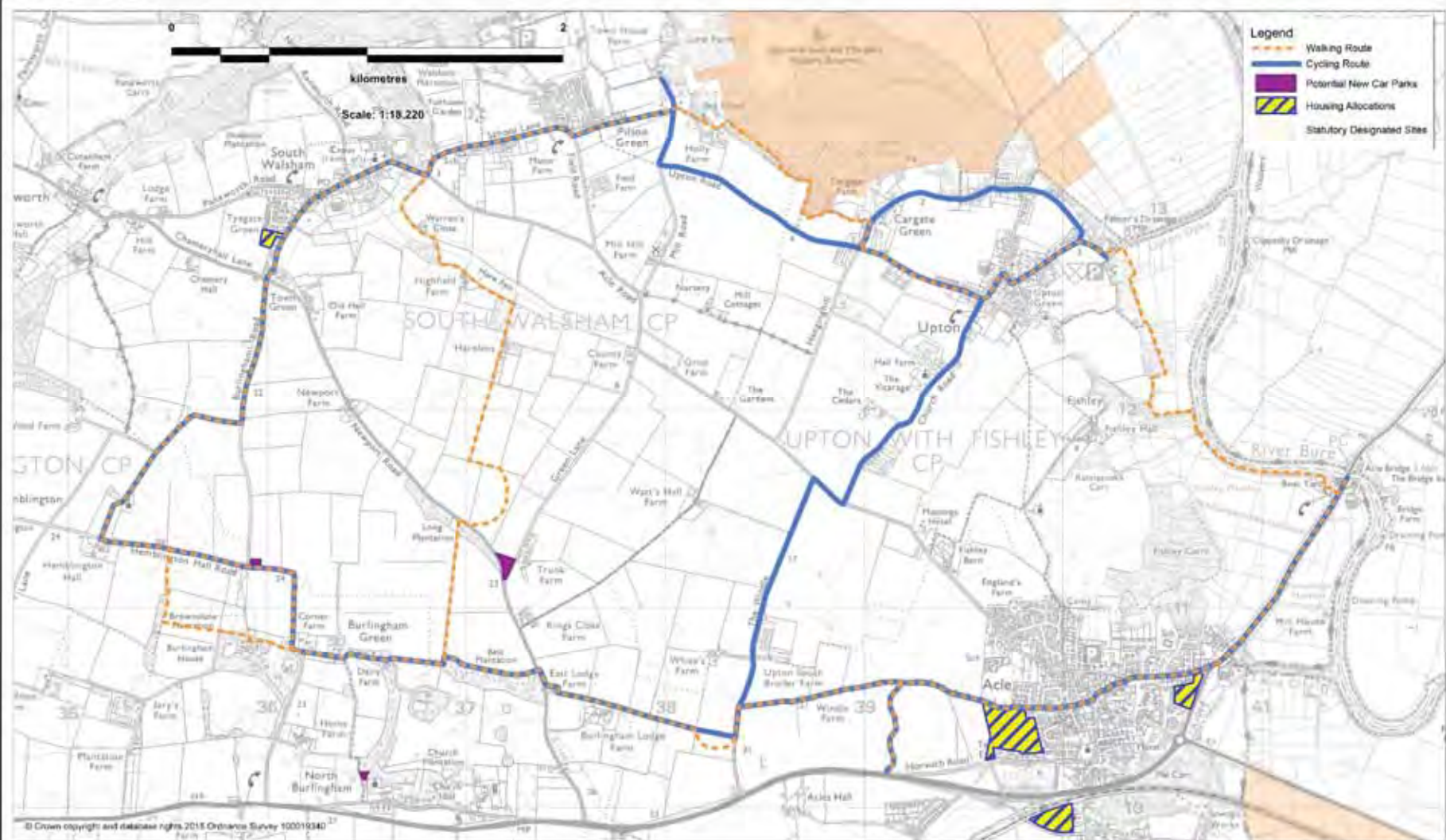


Burlingham Trails Cycling & Walking Routes (Routes indicative)

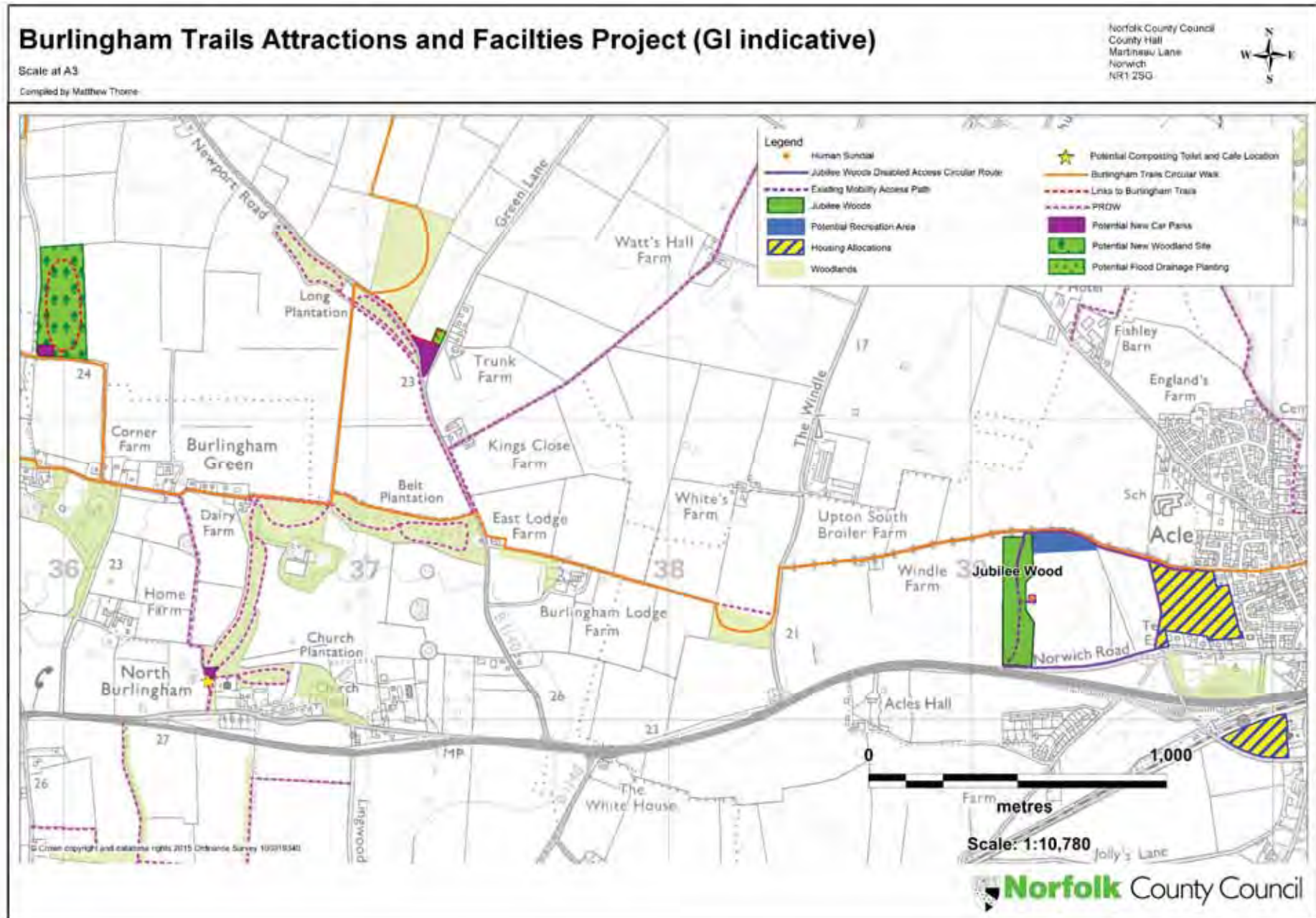
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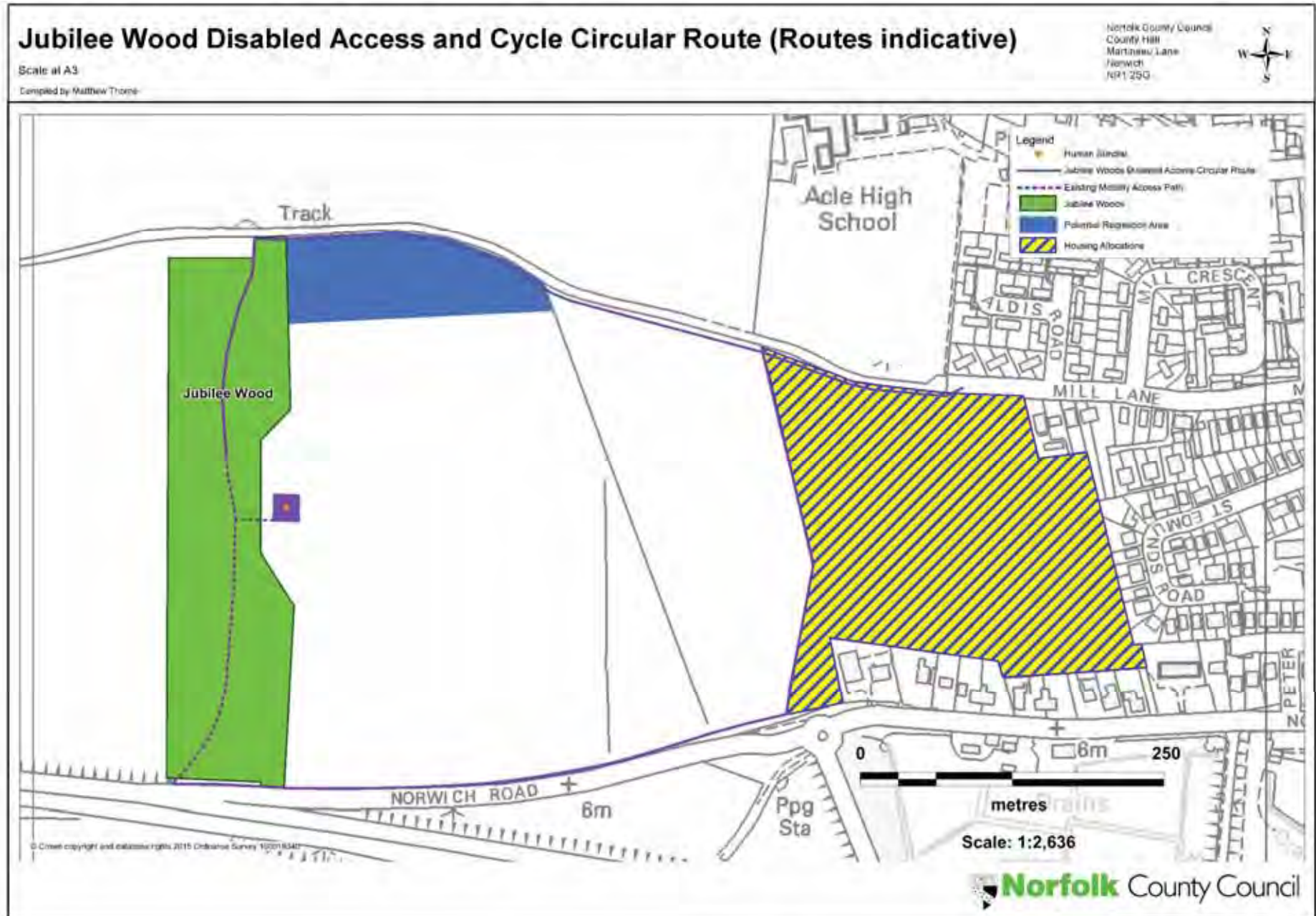
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Project 3: Burlingham Trails Attractions and Facilities Project



Project 3: Jubilee Wood Disabled Access and Cycle Circular

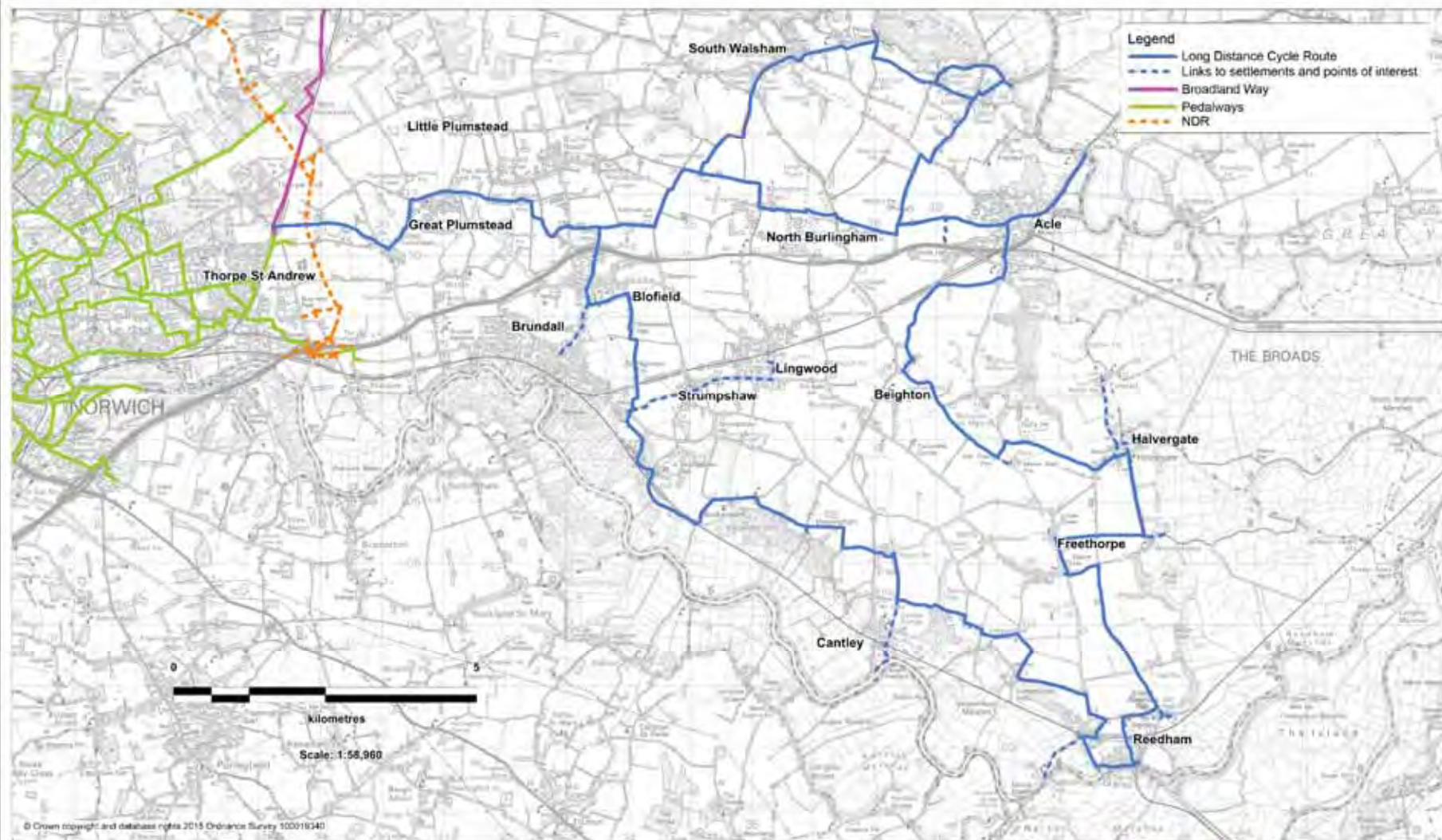


East Broadland Long Distance Cycle Loop (Routes indicative)

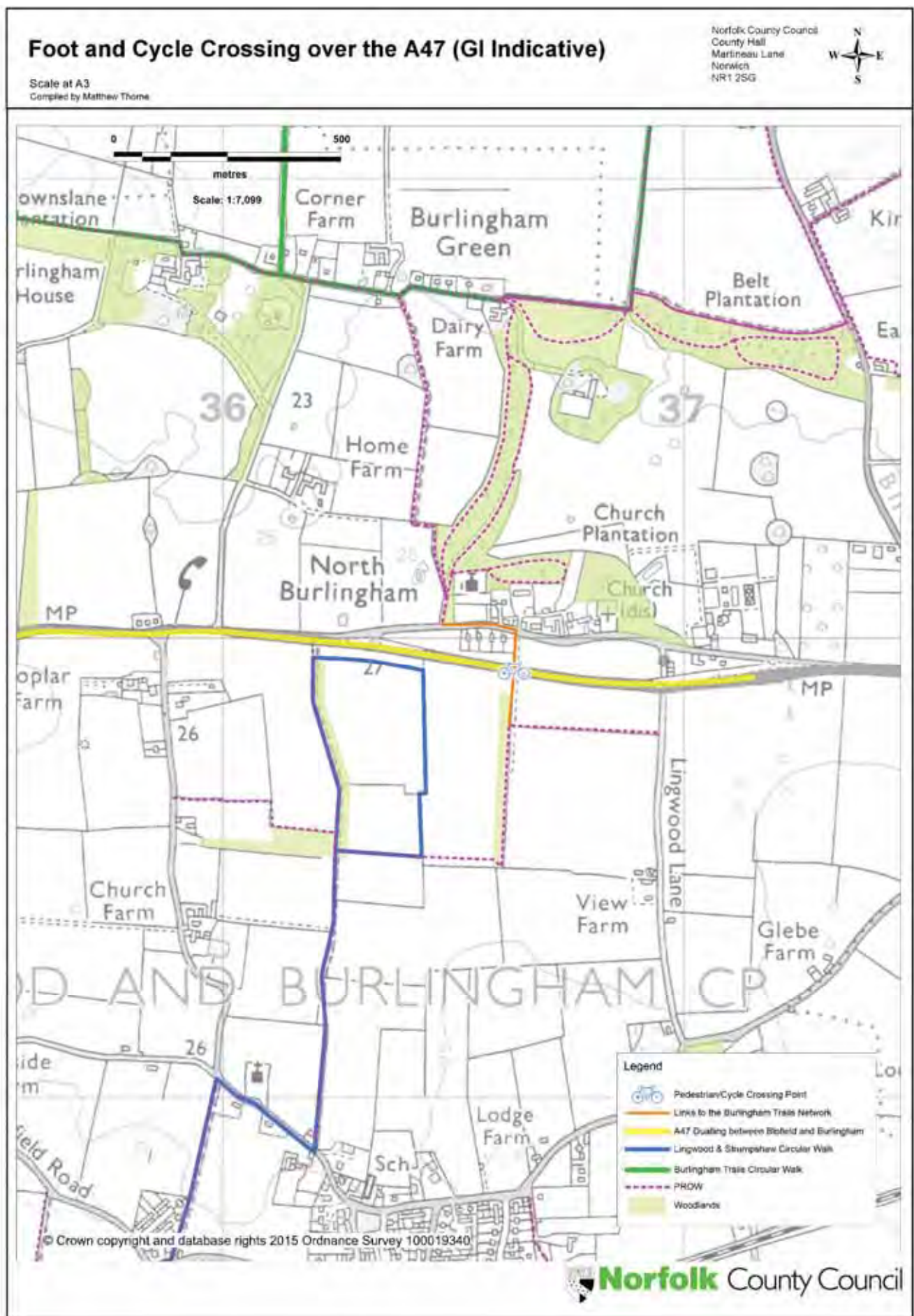
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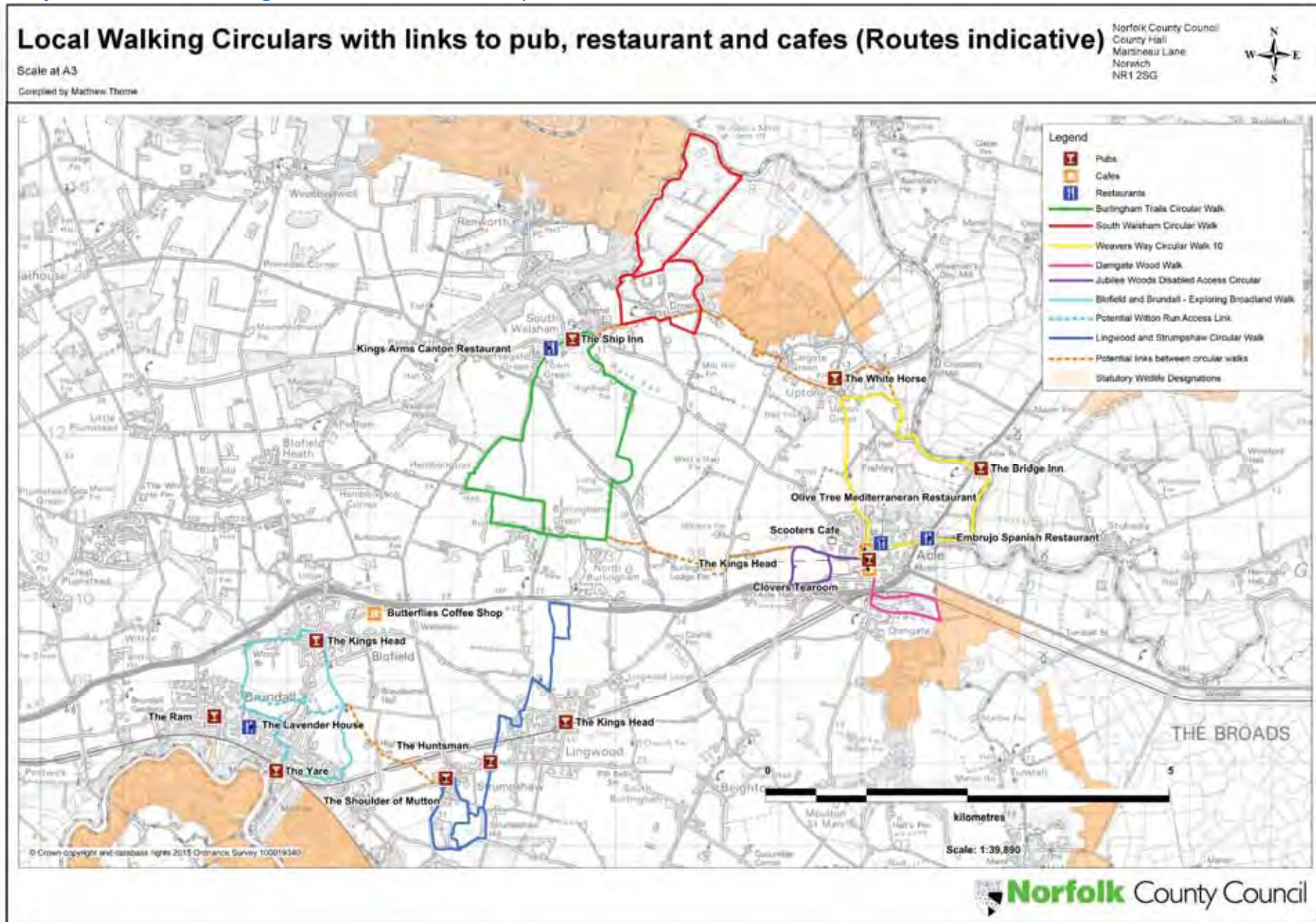
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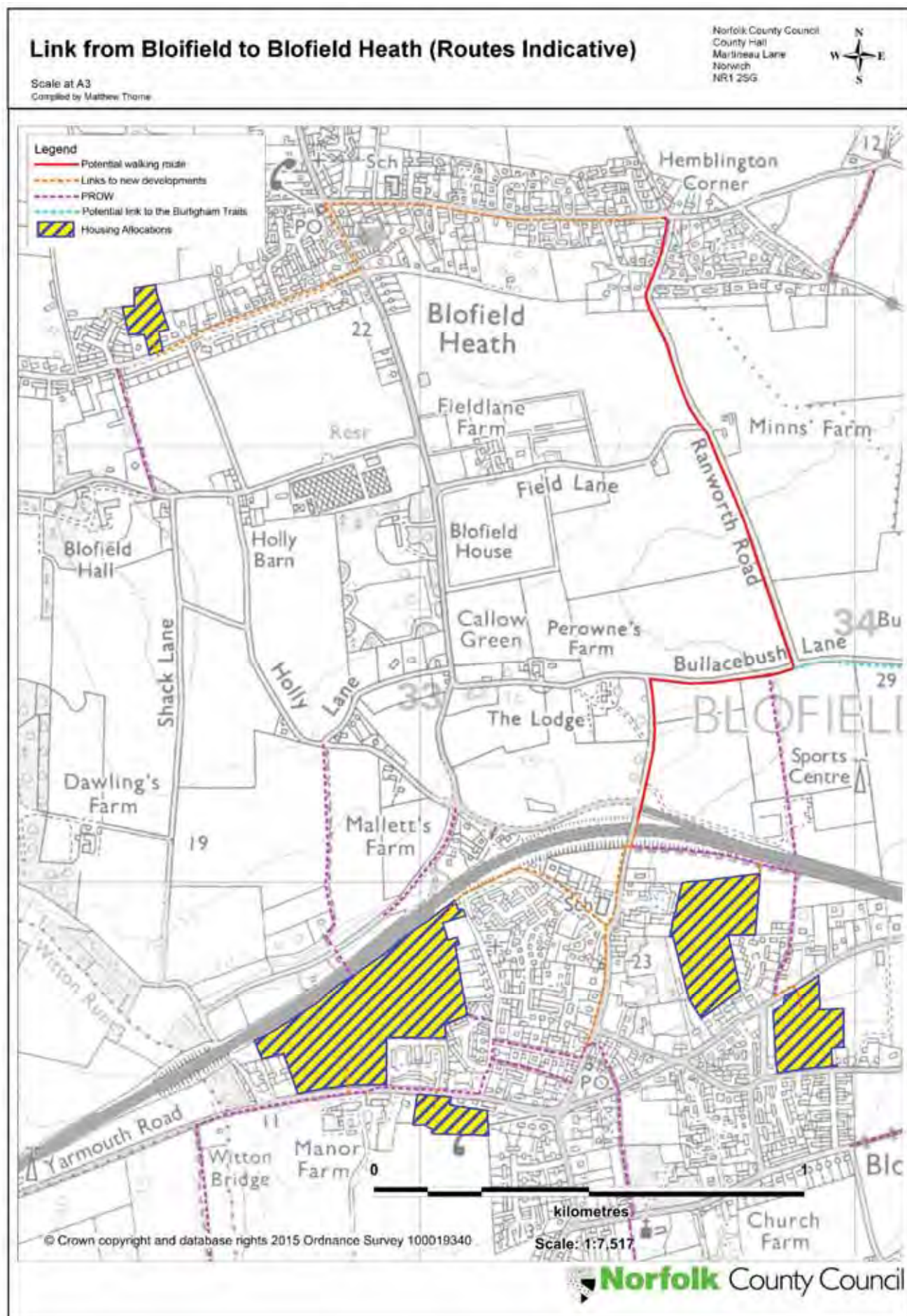


Project 5: A47 Safe Foot and Cycle Crossing





Project 8: Link from Blofield to Blofield Heath



Project 9: Cremer's Meadow GI Project



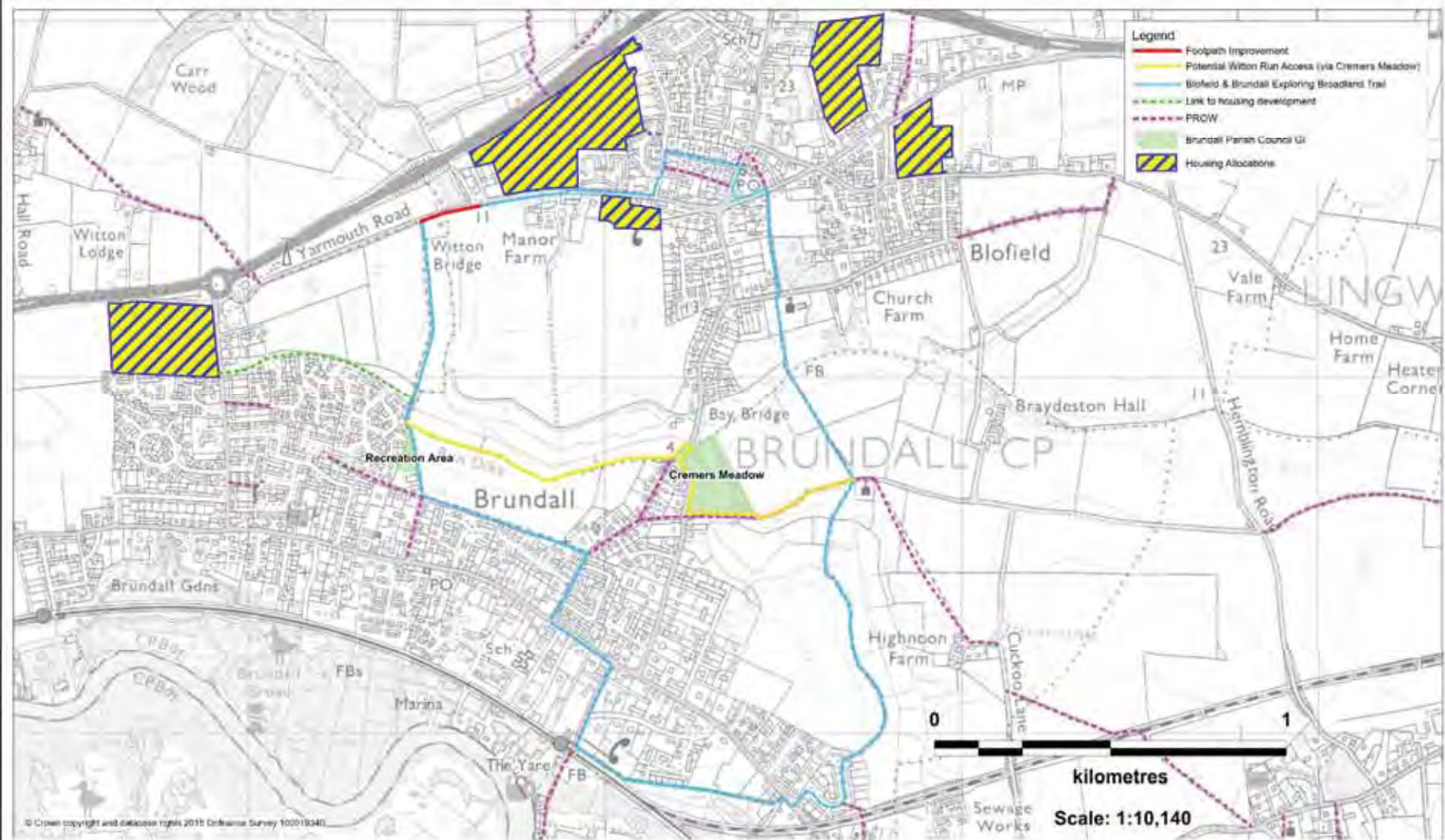
Project 10: Witton Run GI Project

Witton Run GI Project (GI indicative)

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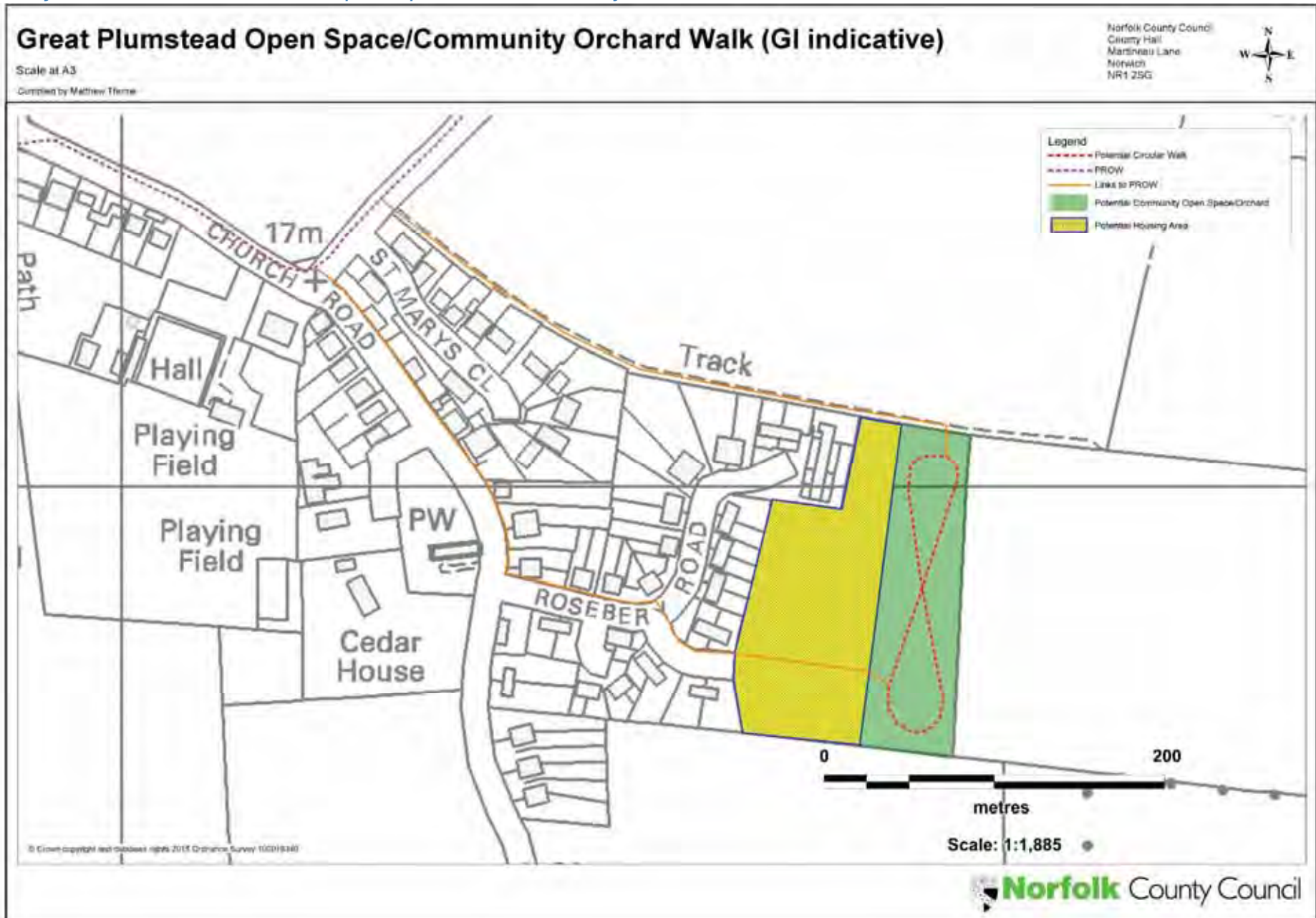
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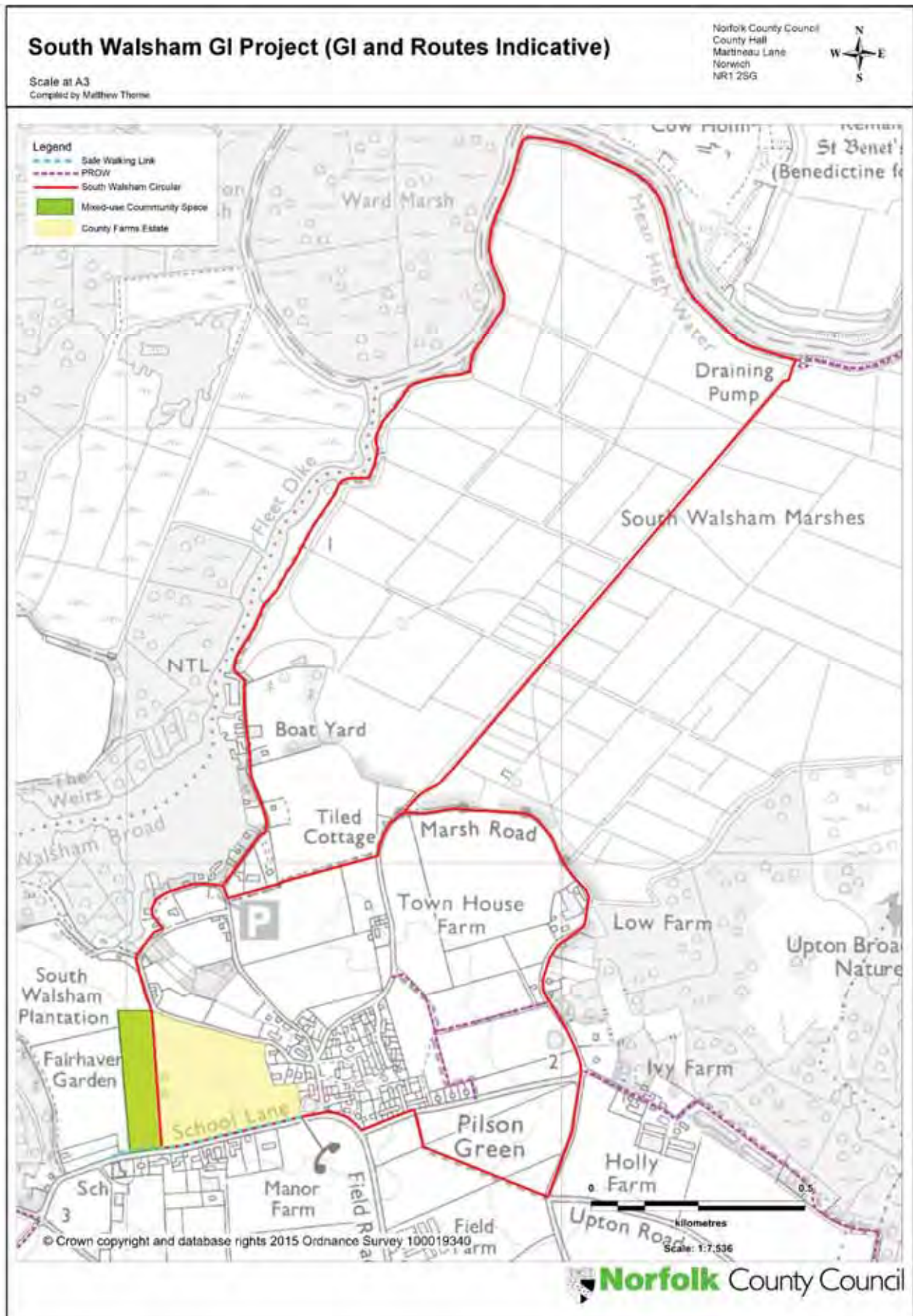


Norfolk County Council

Project 11: Great Plumstead Open Space or Community Orchard Walk



Project 12: South Walsham GI Project

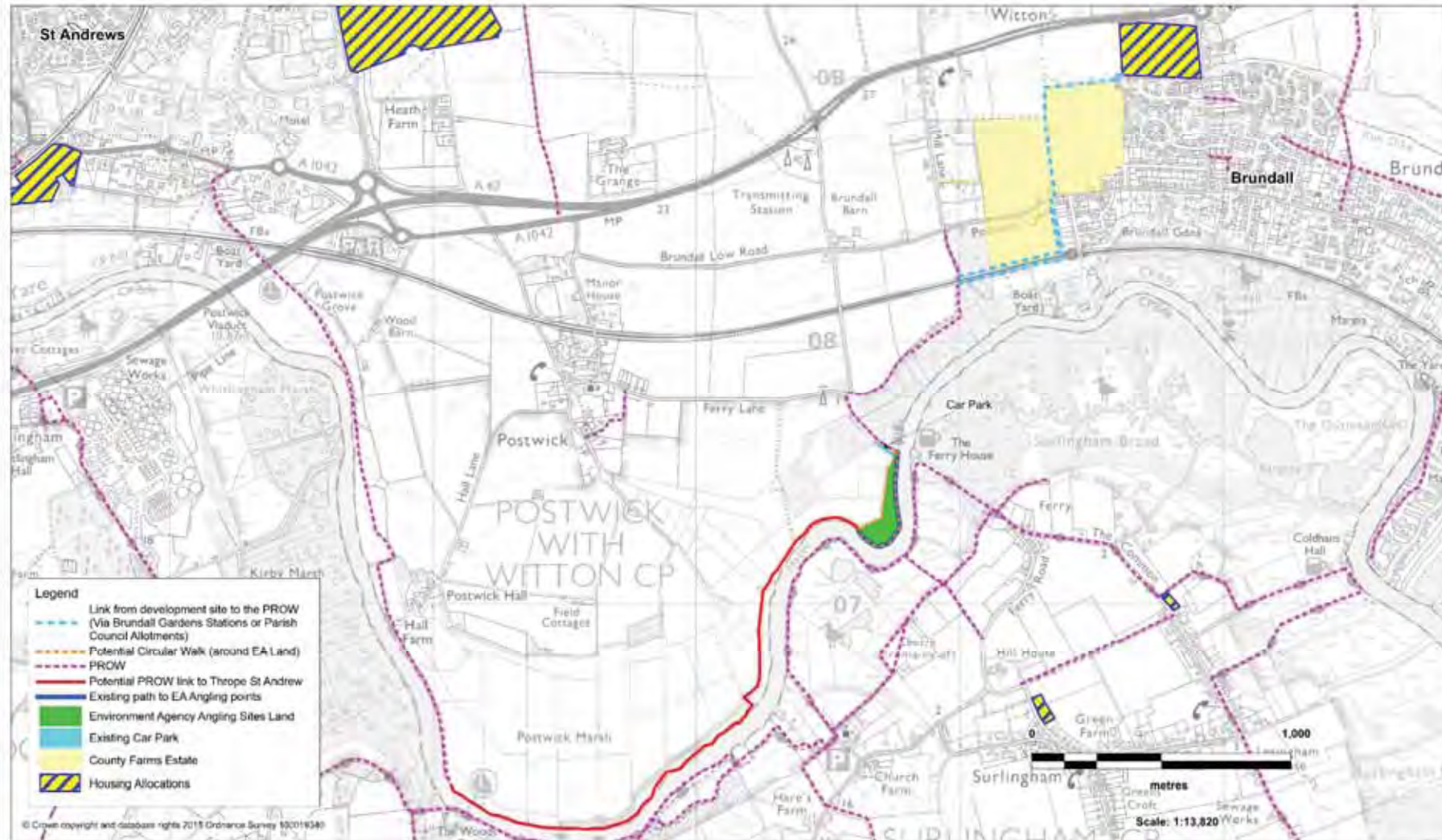


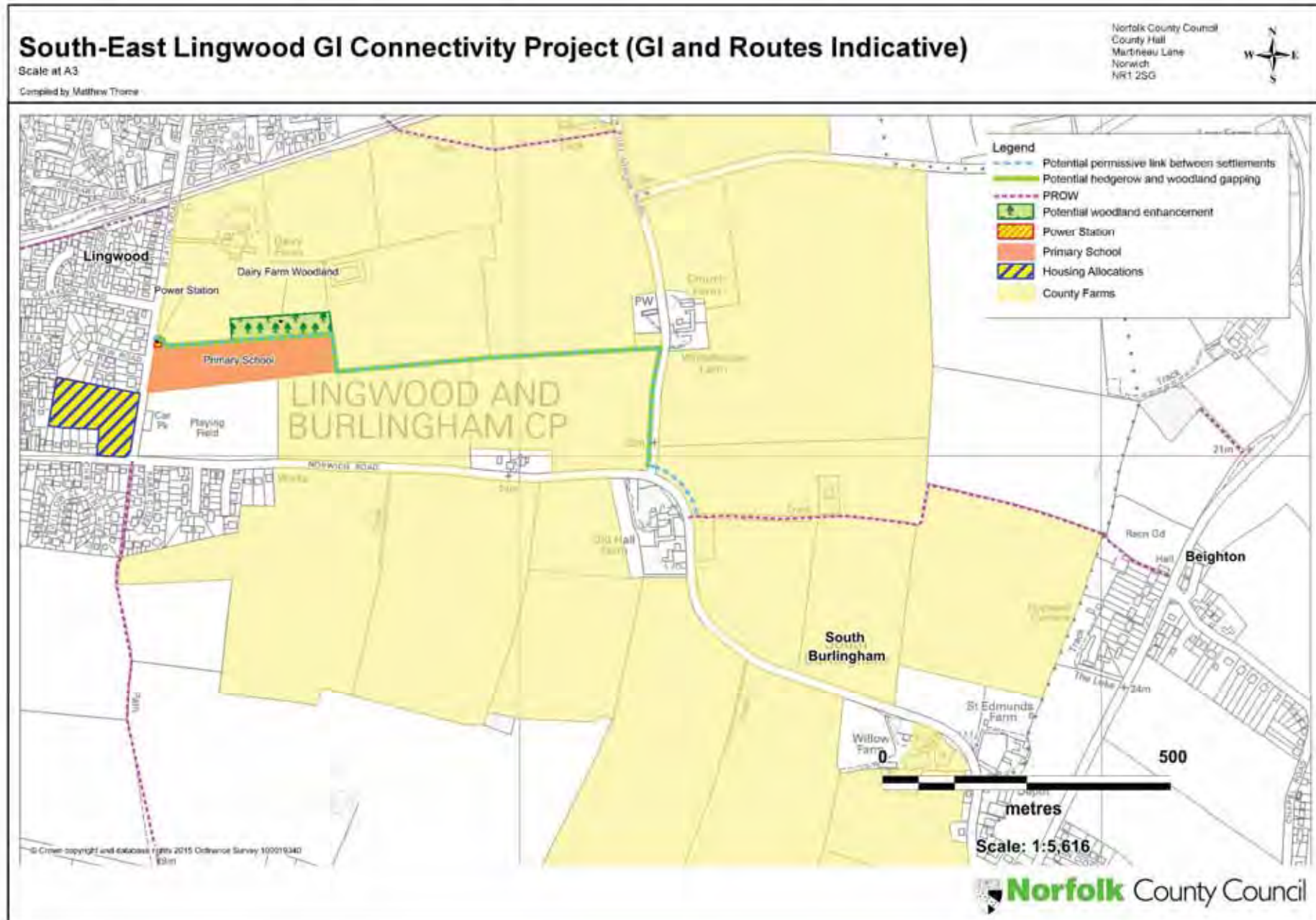
West of Brundall GI Project (GI and Routes Indicative)

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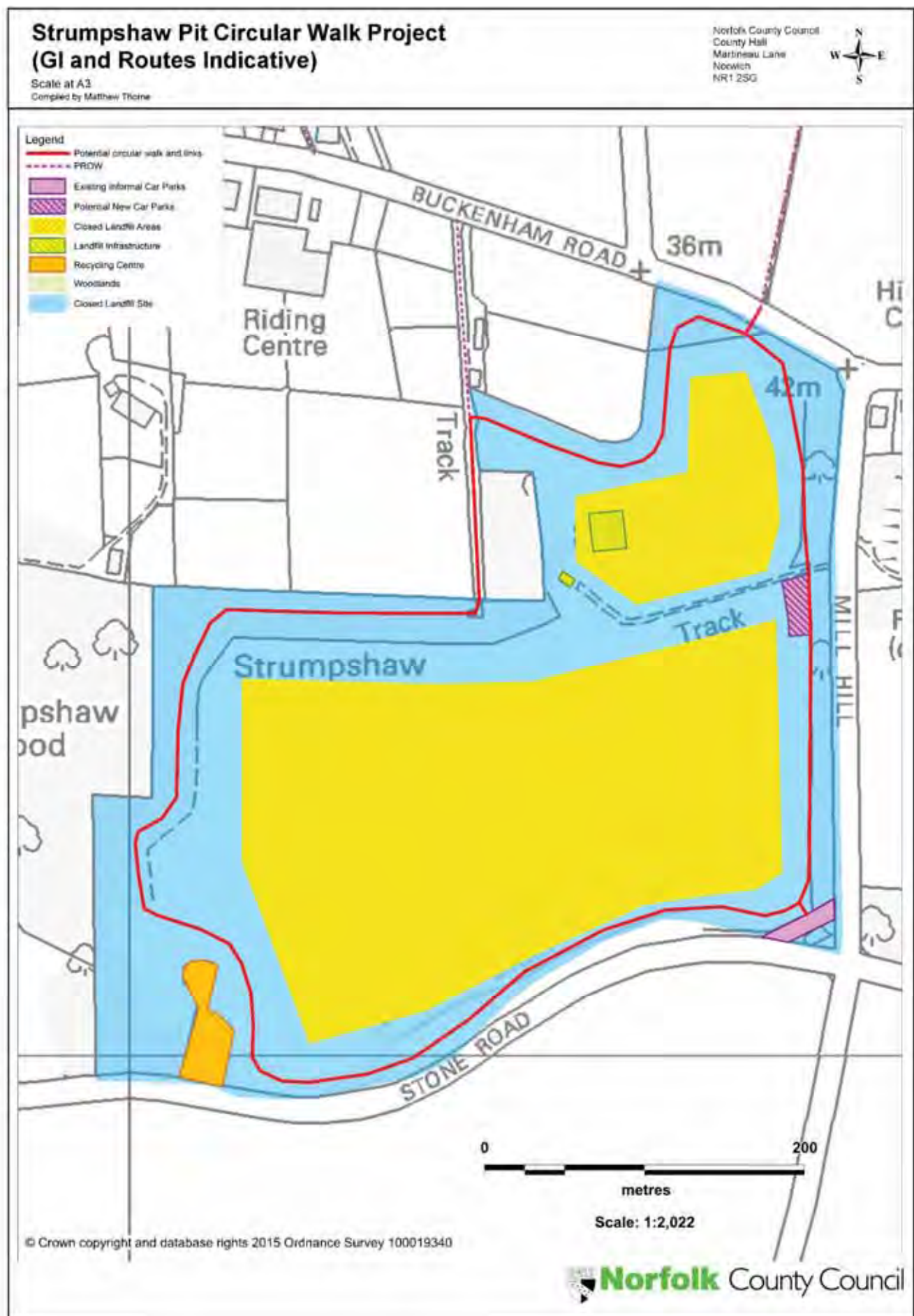
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Project 15: Strumpshaw Pit Circular Walking Route



10.4 Full Projects List

The following projects were assessed using a gold, silver and bronze standard rating system, which examined each project in terms of its ability to meet the aims and objectives of the plan and be suitable for short- or medium-term delivery. It is acknowledged that in the future, the criteria for evaluating projects is likely to change, hence standard ratings will aid project prioritisation. Other factors, such as new funding requirements or changed GI needs will also affect the implementation of the following projects in the medium- to long-term.

Table 2: Complete list of potential projects

No.	Project Description	Location	Standard
1	<p>Acle Lands Trust Woodlands Access and Connectivity Project</p> <p>The proposed project includes:</p> <ol style="list-style-type: none"> 1. An improved gateway and signage at the entrance of Roman Wood, to allow cutting equipment onto the site and increase visibility from the road. 2. A path is required to replace the boardwalk in Damgate Wood for visitors. This will also allow Environment Agency to carry out ditch maintenance work. There is potential to use hoggin as a foundation with chippings on top for the path. 3. To ensure there is disabled access onto both the Damgate Wood and Roman Wood sites. 4. There is prospect for improving the access links and signage through and between Roman Wood, New Road Land, Damgate Wood and the Weavers Way. Between Damgate Wood and the Weavers Way, there is the possibility of small sections of recycled plastic boardwalk to improve the path to avoid waterlogged ground. 5. The formalisation of routes from new developments to the woodlands through signage and ensuring a clear path is key. Roman Wood and Damgate Wood are opposite development sites. As highlighted in the Acle Neighbourhood plan, the Parish Council is planning a crossing point over the A1064 near Hermitage Close providing new homeowners with walking access to the Roman Wood site. For Damgate Wood, there is potential to improve the link past Acle train station to the wood. Further inspection and consultation of the routes are required. 6. Provision of a compact tractor with implements attached for chipping, grass cutting, and other work to open up the paths and manage the meadow areas more effectively and frequently. Alternatively, if not possible, individual equipment provision, such as a large reciprocating mower and chipper would increase capacity. There is the possibility to buy shared equipment, as other stakeholders e.g. South Walsham Parish Council and the Friends of Cremer's Meadow in Brundall require the use of equipment. 7. Formalise a Damgate Wood Circular Walk with links to facilities. The delivery of this circular route is provided within this project, but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pubs, restaurant and cafes). The route would go from Reedham Road through Damgate Wood to the Weavers Way, then back along Damgate Lane and north on Reedham Road into Acle. Signage of the walk will be part of this project, but assisted by Project 6. 	Acle, Brundall	
2	<p>Burlingham Trails Cycling and Walking Routes</p> <p>There is significant potential for improvements to the Burlingham Trails, by providing formalised cycling and walking routes, further connecting the trails with nearby settlements e.g. Acle, North Burlingham and South Walsham. This includes: new signage (to/from and on the trail), the delivery of the circular walking route which is provided within this project but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pub, restaurant and cafes), interpretation boards promoting the trails and the local environment (e.g. local farming practices), potential for an augmented reality app, new car parking provision (potential locations include: Dell Corner Lane, Green Land or an extension to St Andrew's Church car park), works on the proposed cycling route to bring it up to a cycle-friendly standard, potential for planting hedgerows and trees along the Burlingham Trails, a new cycleway from Acle Bridge to Acle to provide tourists (e.g. boats) with cycle access to the trails and a crossing point for pedestrians, cyclists and horse riders at the intersection of Newport Road and Green Lane. This could include a warning system or sign for cars.</p>	Lingwood-Burlingham	

No.	Project Description	Location	Standard
3	<p>Burlingham Trails Attractions and Facilities Project</p> <p>In order to attract people to the Burlingham Trails, there is potential to create a number of recreational areas and facilities for visitors:</p> <ol style="list-style-type: none"> 1. Friends of Burlingham Woods: To establish a volunteer group to help to manage and promote the Burlingham woodlands and trails. A potential barrier to the expansion of the Burlingham woodlands is the limited resources available to manage the woods. An initial step is to create a paid Project Co-ordinator post for the initial 3 years of the project. Their role would include the facilitation and co-ordination of a 'Friends of Burlingham Woods' volunteer group and the production of a sustainable woodland management plan (working alongside Norfolk County Council's Environment Team staff and Land Agent). This will include increasing wildlife corridors, highlighting potential areas to extend the Burlingham Woodlands and a poplar rejuvenation project, including the active removal and replacement of poplars with a variety of trees for Climate Change resilience. The role would also involve developing local networks and partnerships with other groups involved in countryside management in the study area and with groups involved in health promotion and education through outdoor activities. 2. A disabled access and cycle circular at Jubilee Wood linking the West-Acle (Mill Lane) development site to Jubilee Wood using the inside of the field edge, then through the wood South, then East along the A47 sliproad (Norwich Road), which may require improvement, North along the Western edge of the development site. The delivery of this circular route will be achieved through this project, but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pub, restaurant and cafes). 3. Potential for an informal recreation area in the field East of Jubilee Wood, by planting short wildflower mix for visitors and wildlife. 4. Planting a new woodland to form part of the Burlingham Trails network, extending the GI corridors and green spaces for wildlife and people. A potential site (as noted in Appendix 9 of the GI Delivery Plan (TLP, 2009)) is at Burlingham Road, South Walsham, forming part of a programme for the re-creation of former woodlands to the north-east of Norwich, with the objectives of opening the woods for public access, growing quality hardwoods and enhancing the wildlife value of the broader area. The project embraces sound management, in order that the woodlands offer the fullest potential to wildlife. Enhancements to public rights of way to reinforce the network of Burlingham Woodland Walks. Project aspects include: <ul style="list-style-type: none"> • New woodland of 3.5ha (2500 trees), including an orchard of 30 trees. • Access path to link with existing routes. • Interpretive material. • Community engagement and involvement • Tactile sculptures. • New benches 5. An improved car parking and provision of other facilities e.g. toilets. There is potential for a new car park at either Dell Corner Lane or in the field corner where Green Lane meets the Newport Road. If the Green Lane option was taken forward, there would be the possibility of a flood mitigation planting area north of the car park, to reduce floodwater build-up in the low lying section of Green Lane. In addition, there is potential for an extension to St Andrew's Church car park, north of the existing area. The provision of composting toilets and a cafe at St Andrews car park for the church and visitors would provide facilities to encourage longer visits and enhance the experience. Initial piloting of the café could be done using a mobile coffee shop or van. 6. New interpretation facilities such as information boards and possibly an 'augmented reality' app. 7. Create an Environmental Sculpture trail by commissioning new artworks to supplement the existing sculptural sundials on the Burlingham Walks. 8. Improved waymarking to the Burlingham Trails from the main roads and key settlements, including signage to and at the entry points and facilities. For example, there is potential for signage directing passing traffic from the A47 to the North Burlingham woodland walks and an improved entrance to the car park next to St Andrew's Church through vegetation management and signage to create a clear gateway. 	Lingwood-Burlingham	

No.	Project Description	Location	Standard
4	<p>Long Distance Cycle Loop</p> <ol style="list-style-type: none"> 1. An East Broadland long distance cycle loop that links through settlements and passes train stations around the East Broadland area, which includes spurs off the main route to points of interest and additional settlements. The aim is to link the route to the Norwich Pedalways and the Broadland Way, while train stations will provide good access links to/from Norwich and Great Yarmouth. Feasibility study is required to examine the potential of an off-road cycling section from Great or Little Plumstead to Norwich, expected to cross the NDR at Middle Road, which includes cycleway continuation along Water Lane. An indicative map of the loop is displayed in Section 10.3. 2. There is potential to promote the use of the East Broadland cycle loop through mapping and use of promotional media to show exemplar cycling possibilities. These might include: <ol style="list-style-type: none"> a) The cycle link from Acle to Norwich (created by the East Broadland cycle loop). b) A Yare Valley cycle circular route. This would combine the existing Yare Valley cycle route from Norwich to Reedham, cross the river using the Reedham ferry, then use the East Broadland cycle loop route to link back to Norwich. c) Promotion of small sections of the East Broadland cycle loop to give examples of manageable cycling routes suitable for a target user group (e.g. a cycle section between two train stations that has facilities for families). <p>Note: The routes and details of the project are indicative and will be determined in the project development stage. The routes should not increase visitor impacts on internationally designated sites, specifically on Strumpshaw Fen.</p>	East Broadland Area	
5	<p>A47 Safe Pedestrian and Cycle Crossing</p> <p>A safe foot and cycle crossing over the A47 between Lingwood and North Burlingham. This will provide a vital link between the settlements and the Burlingham Trails to the north and south of the A47, as the fast road severs access for active transport, while it is difficult for cars to cross. The 2015-2021 A47 dualling plans for the Blofield and Burlingham section will increase the severance effect. This crossing would provide a way to integrate communities on both sides of the road, whereby at present pedestrian crossings are at Blofield and Acle. North of the Blofield crossing, there is currently no formal walking link (see Project 8).</p>	Lingwood-Burlingham	
6	<p>Local Walking Circulars with links to pub, restaurant and cafes</p> <p>A series of walking circulars with links to cafés, restaurants and pubs, using existing and newly created routes. This will direct walkers (including dog walkers) along scenic routes away from sensitive sites and with provision of facilities. The project will include both route creation and promotion (see also Project 7). The delivery of this project is independent from the potential routes highlighted, as their establishment will vary in timescales, location and funding. The routes for delivery will be re-examined in the development stage. These include the following circulars:</p> <ol style="list-style-type: none"> 1. Strumpshaw and Lingwood Circular Walk The southern loop around Strumpshaw Pit will be delivered in Project 15 (Strumpshaw Pit) and the northern loop is maintained by Norfolk County Council as part of the existing Burlingham Trails. This project is responsible for the delivery of the route, signage and promotion, in particular, signage to pubs, restaurants and cafes. 2. South Walsham Circular Walk The walk will be delivered as part of Project 12 (South Walsham GI). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes. 3. Jubilee Wood Disabled Access Circular Walk The walk will be delivered as part of Project 3 (Burlingham Trails Attractions). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes. 	East Broadland Area	

No.	Project Description	Location	Standard
	<p>4. Burlingham Trails Circular Walk The walk will be delivered as part of Project 2 (Burlingham Trails Cycling and Walking Routes). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.</p> <p>5. Damgate Wood Circular Walk The walk will be delivered as part of Project 1 (Acle Lands Trust Woodlands). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.</p> <p>6. Weavers Way Circular Walk 10 (via Acle and Upton) The walk is an existing route maintained by Norfolk County Council. This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.</p> <p>7. Blofield and Brundall: Exploring Broadland Circular Walk The walk is an existing route promoted by Broadland District Council and potential route delivery and signage is included within Project 9 (Cremer's Meadow) and Project 10 (The Witton Run). This project will assist with the delivery of additional signage and promotion, in particular, signage to pubs, restaurants and cafes.</p>		
7	<p>Promoting GI links and spaces</p> <p>A significant promotion project to communicate local and regional green infrastructure links and open spaces for cycling, walking and horse-riding to new homeowners, local communities and tourism away from sensitive wildlife sites.</p> <ul style="list-style-type: none"> Part 1 - Create a new homeowner's welcome pack that will be given to new homeowners when moving in. <ul style="list-style-type: none"> An "Early Bird" welcome pack will be created to highlight existing GI in the local vicinity and East Broadland for immediate distribution to homeowners that have moved into new developments. This will prevent habits of recreation in sensitive wildlife sites being established. A "Standard" welcome pack will be delivered with an updated and full inclusion of existing and newly created GI in the local and regional area. Potential GI for promotion will be examined further in the project development stage. Suggestions for potential inclusion are: <ul style="list-style-type: none"> Burlingham Trails Walking and Cycling Routes The East Broadland Long Distance Cycle Loop The Acle to Norwich Cycle Route Yare Valley Cycle Circular RSPB (Strumpshaw) woodland and wetland led cycle rides The Tour de Broads cycle routes Fairhaven Gardens RSPB Strumpshaw Reserve NWT Upton Walking Guides 6 South Walsham walks made by Natural England in consultation with South Walsham Parish Council. Circular walks with links to pubs, cafes and restaurants A guide to finding local parish allotments Improve and promote the Wherry Line Railway Rambles to encourage people to take the train and walk between stations. Create a guide to settlements in the East Broadland area and promote them by attributing local identity to each place e.g. dragonflies to represent Upton. Part 2 - Website and social media <ul style="list-style-type: none"> Work with Local Authorities, Parish Councils and tourism organisations to promote new and existing GI using websites and social media. Other media channels are recommended to complement this, such as through events promotion and the monthly inclusion of a circular walk in the Broadsheet. 	East Broadland Area	

No.	Project Description	Location	Standard
	<ul style="list-style-type: none"> Part 3 - Booklets and leaflets <ul style="list-style-type: none"> Potential to work with different stakeholders to accumulate and create a unified local walking and cycling routes booklet. Produce and distribute leaflets and booklets relating to local GI in the study area to give to local Tourist Information Centres, Schools, Libraries, etc. A leaflet promoting Broads-type experiences in the locality away from sensitive sites. Part 4 – Signage <ul style="list-style-type: none"> New and improved signage, including: <ul style="list-style-type: none"> The long-distance cycle route with links to adjacent settlements and points of interest waymarked. From train stations and other visitor hotspots to local GI (e.g. signage from Acle train station to Damgate Wood). A clearly waymarked route from new developments to local GI. 		
8	<p>Link from Blofield to Blofield Heath</p> <p>Conduct a feasibility study into the creation of a link between Blofield and Blofield Heath. This would provide a crossing point over the A47 with the potential further links from Blofield Heath East to the Burlingham Trails and West to the 'Plumsteads'. Since Blofield has good PROW links to the settlements south of the A47, it would be key in integrating the communities both north and south. A potential route could follow north from the new development sites in Blofield over the A47 using the bridge with an existing path, then along a new path by the side of road which turns right onto Bullacebush Lane and then left onto Ranworth Road until it joins with the pavement in Blofield Heath. In the project development stage, a feasibility study will investigate the possible routes and costs and involve landowner consultation to identify the best route.</p>	Blofield, Blofield Heath	
9	<p>Cremer's Meadow GI Project</p> <p>Cremer's Meadow is comprised of over 4 acres of land (owned by Brundall Parish Council). Their policy for the site is to preserve it as a wildlife and nature reserve that is open to recreational activities that enable people to experience and learn about the natural environment in a way that does not conflict with conservation.</p> <ol style="list-style-type: none"> There is potential to work with the Friends of Cremer's Meadow to undertake biodiversity enhancement and conservation activities throughout the site. There is potential to create and formalise public access around the site to encourage local residents to enjoy and learn about the natural environment. This could include a new path, signage, interpretation, and benches. This would work in conjunction with the Witton Run GI Project (Project 10) and the Circular Walks Project (Project 6) forming part of a link across the middle of the Blofield and Brundall: Exploring Broadland Circular Walk. There is potential for shared equipment provision (linked to the Acle Lands Trust Woodlands, Burlingham Attractions and South Walsham GI projects). 	Brundall	
10	<p>Witton Run GI Project</p> <p>The Witton Run is a crucial green infrastructure corridor in the East Broadland region. There is significant potential to use this corridor to increase access links around Blofield and Brundall, so it follows the Witton Run more closely and connects the existing GI between the Yarmouth Road and St Michael & All Angels, Braydeston. The different aspects for delivery include:</p> <ol style="list-style-type: none"> Footpath improvement alongside the Yarmouth Road between the PROW (Postwick FP6) and Frogs Hole. Completion of access alongside the Witton Run. It would require buying land or negotiating a permissive access agreement over two sections of land, continuing the path between Blofield and Brundall. Potential for walking links from the new Brundall and Blofield developments to be formalised through signage, e.g. from the end of Berryfields to the PROW (Brundall FP2). 	Blofield, Brundall	

No.	Project Description	Location	Standard
	<p>4. To formalise a double-looped circular walk based on the existing Blofield and Brundall: Exploring Broadland Circular Walk (promoted by Broadland District Council) through route improvement and signage. The walk will facilitate its inclusion as part of the local walking circulars with links to pub, restaurant and cafes (Project 6).</p> <p>5. Links with existing Brundall Parish Council GI, including Brundall Memorial Hall's recreational space and provision of passage around the edge of Cremer's Meadow (Project 9).</p> <p>6. The project should be beneficial in terms of the management of the Witton Run, water quality, ecological connectivity and climate change resilience. Negative impacts on water quality should be mitigated, especially due to the potential impact on Strumpshaw Fen. This will be examined further in the project development stage.</p>		
11	<p>Great Plumstead Open Space/Community Orchard Walk</p> <p>There is potential to create open space or an orchard walking area in the field to the East of Great Plumstead, behind Rosebury Road on land which is owned by Broadland District Council. The 'Plumsteads' Neighbourhood Plan proposed the site for approximately 33 affordable and downsizing-category homes which could form part of the plan. The eastern half of the field has potential for community space, as it a mains gas pipeline runs underneath the area inhibiting development, but not other uses. There is potential for a circular walking route around this area which could provide additional recreational benefit for local residents, including dog walkers, away from sensitive sites and close to a potential new development.</p>	Great Plumstead	
12	<p>South Walsham GI Project</p> <p>The project for delivery will be examined further in the project development stage. The different aspects of the prospective project includes:</p> <ul style="list-style-type: none"> Part 1: Potential footpath along School Road (South Walsham) from Fairhaven Primary School to Pilson Green, forming a key safe link between South Walsham and Pilson Green. Plans for the delivery of the footpath are expected to be carried out by Norfolk County Council in early- to mid-2016. This will extend the safe walking links between Pilson Green, Upton and Acle to South Walsham, passing Fairhaven Gardens and Fairhaven Primary School. Part 2: There is potential for a figure of eight circular walk that will link settlements with the South Walsham marshes, passing a new community GI space (see Part 3). This will draw people away from statutory designated marshes that are to the north and south. The delivery of the circular walk will be provided through this project, but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pubs, restaurant and cafes). Part 3: The area of a Norfolk County Council Corporate Property Team field, to the west of the PROW on School Road (South Walsham FP5), could potentially become a mixed-use community space with a car park. A car park entrance may require a small portion of land to the east side of the PROW (South Walsham FP5) due to vegetation. This would require land acquisition. 	South Walsham	
13	<p>West Brundall GI Project</p> <ul style="list-style-type: none"> Part 1: Potential walking links to the west of Brundall: <ol style="list-style-type: none"> Connect the new developments north-west of Brundall, through the existing Norfolk County Council, Corporate Property Team community woodland walk, with Brundall Gardens Station, the Parish Council allotments and Brundall village centre. Continue the link from the new developments to the Witton Run PROW, via the cemetery or Berryfields connecting to the north-east Brundall PROW network (See Project 10). A link from Brundall Gardens station and/or from the Parish Council allotments to the existing PROW (Postwick FP3) leading to the Environment Agency (EA) angling sites on the Yare riverbank. This may require formalising the permissive agreement along the south side of the railway track. Create a circular walk around the Environment Agency land by the Yare River. Part 2: Continue the PROW from the EA angling sites (Postwick FP3) along the Yare riverbank to the PROW leading to Thorpe St Andrews (Postwick FP4). 	Brundall, Postwick, Thorpe St Andrews	

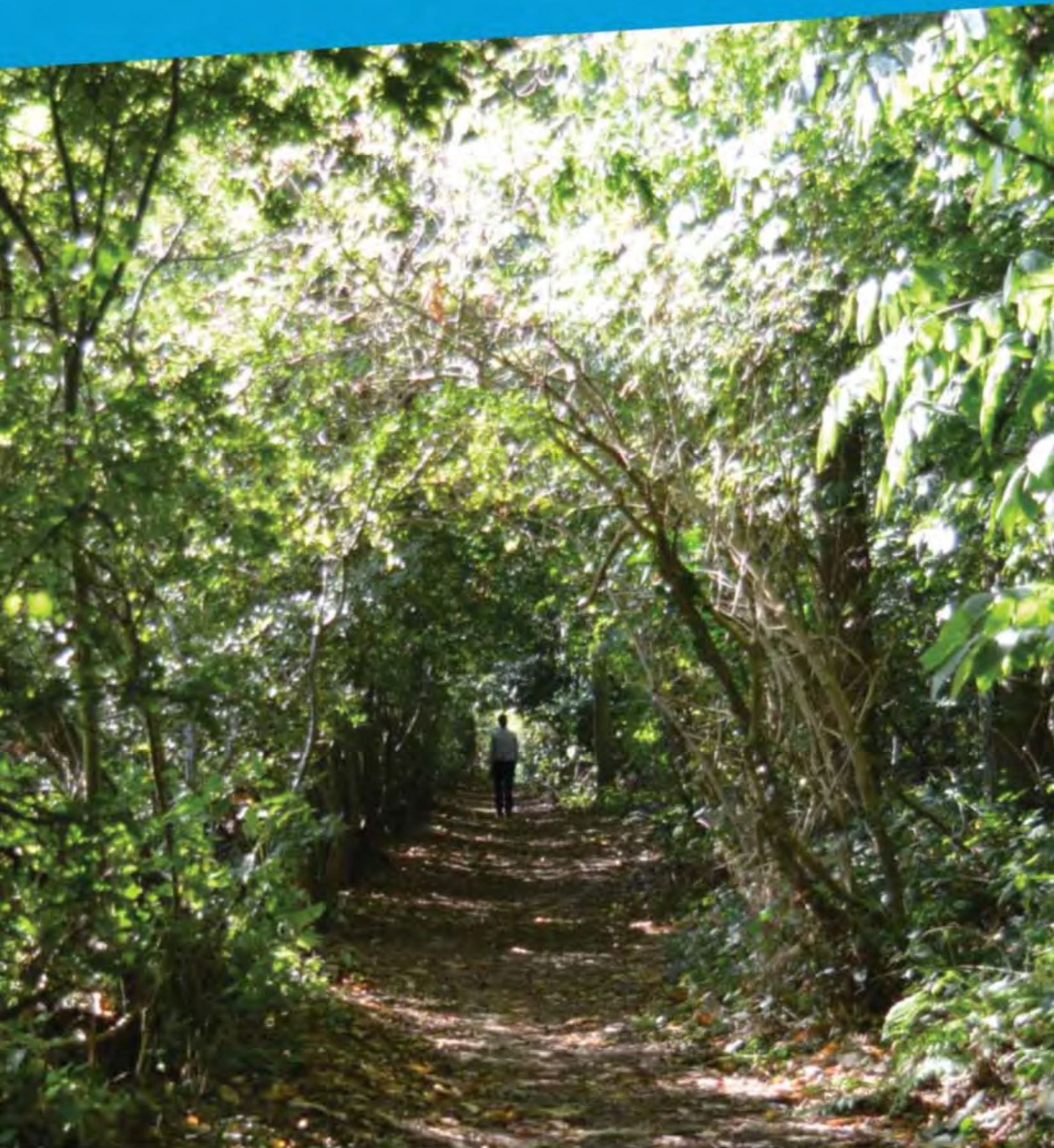
No.	Project Description	Location	Standard
14	South-East Lingwood GI Connectivity Project <ul style="list-style-type: none"> Part 1: There is potential to improve access links and wildlife connectivity from South Burlingham and Beighton to the new development site to the South-East of Lingwood. This includes a permissive path agreement, the gapping of hedgerows and woodlands, and potential woodland enhancement on the Dairy Farm woodland. Part 2: Between Lingwood and South Burlingham there is a fast and masked bend, which is dangerous for walkers, on the Norwich Road. There is potential to create a safe walking route around the corner, inside the edge of the Norfolk County Council (NCC) Corporate Property Team tenant-let field, providing improved walking links between the two settlements. 	Lingwood, South Burlingham, Beighton	
15	Strumpshaw Pit Circular Walking Route <p>There is potential to expand the dog walking capabilities of Strumpshaw Pit, which is owned by Norfolk County Council. This could be achieved through additional parking, which would increase the distance that dog walkers travel. In addition, cycle rack provision will provide for other users. The existing site includes a circular walk around a closed landfill site with various wildflowers growing and it is commonly used by dog walkers, but is not fully accessible.</p> <ul style="list-style-type: none"> Part 1: Consultation with Norfolk County Council Closed Landfill Section has highlighted that formalising access to the site and encouraging more people on to the landfill site requires improvement to the landfill gas infrastructure. This includes transferring existing above ground infrastructure underground and additional fencing in the area of the gas management plant. Part 2: The improvement of parking facilities for cars and bicycles and the addition of benches and dog bins is required. This would encourage greater use of the site by dog walkers and other users for recreation and include a new car park next to the main entrance from Mill Hill. The car park, with cycle rack provision, would require fencing to allow dogs to be let off leads when using the site. The addition of dog bins is required to decrease the likelihood of dog waste being left around the site. Part 3: Improvement of the circular walk and links to the entry points will enhance the visitor experience. The delivery of the circular route is provided within this project, but additional signage and promotion may form part of Project 6 (Local walking circulars with links to pub, restaurant and cafes). Part 4: There is potential for biodiversity improvements along the path e.g. an improved hedgerow along the south side of the site. This will be considered with consideration to visitor experience. 	Strumpshaw	
16	Community-based management organisation <p>The creation of a community-based management organisation that will achieve and provide the maintenance for the GI projects highlighted in this plan. This could be achieved through establishing project officer positions with responsibilities of initiating and bringing together a series of local volunteer groups and stimulating local resident, Parish Council and other organisations support. This could be facilitated through the creation of a 'Friends of Broadland GI Group', including the project officers, tasked with overseeing a series of local GI groups. The remit of the group would be for the East Broadland or Broadland District area and have an overarching project evaluation and monitoring role.</p>	East Broadland Area or Broadland District	
17	<p>Creation of a tree-lined avenue on Norfolk County Council's Corporate Property Team land between the South-East corner of the field (opposite the North-East corner of the Lingwood Recreation Ground) and the church to the North of the field. The path could follow a line through the eastern section of the field to minimise agricultural land loss. The field to the East of the avenue could potentially form new woodland for a community walk. There is possibility for a path to go around the church and then link up with existing PROW network.</p>	Lingwood	
18	<p>A project encouraging primary school children to develop local and safe cycling routes in the East Broadland area. A key aim is to create a series of cycling routes to local schools as well as to local areas of interest for leisure, with a prize presented for the best route in each school. There is the possibility of signing and promoting more widely the best routes. These would require working closely with schools e.g. head teachers and parents and the Casualty Reduction Section of Norfolk County Council who deliver a programme of safe cycle training in schools.</p>	East Broadland Area	

No.	Project Description	Location	Standard
19	Creation of a role within an appropriate organisation to support Parish Councils (or other relevant bodies) in the investigation, delivery and maintenance of permissive footpaths to serve local communities. This could be an element within a general project to co-ordinate Green Infrastructure provision.	Broadland District	
20	Potential creation of a woodland, to the west of Acle or east of Jubilee wood, on a steep slope. This would require consultation with the landowner, Norfolk County Council's Corporate Property Team.	Acle	
21	Create a World War heritage walk (based on the existing Weavers Way 10 Circular Walk) from Acle to Upton via Fishley, providing interpretation of the historic points of interest, such as pillboxes.	Acle, Upton, Fishley	
22	Potential safe dog walking locations away from sensitive sites requiring ground truthing and improvement (e.g. car parking provision). These include: Mailton Sand Pit (Beighton), Railway Wood (Strumpshaw), Buckenham Woods, Damgate Wood, or a newly created circular walk around Great and Little Plumstead.	Beighton, Strumpshaw, Great and Little Plumsteads, Acle	
23	Plantation Wood, Blofield (near Plantation Road) - A woodland owned by the Highways Agency to the North of Blofield which is currently closed from public access. There is potential for woodland enhancement through volunteers that have contacted Norfolk Wildlife Trust regarding work on the site.	Blofield	
24	Footpaths created between the new developments east of Blofield and key facilities in the village, e.g. walking links to school.	Blofield	
25	Increasing access for the local community to Blofield Recreation Ground.	Blofield	
26	Walking or cycling route between Blofield, Brundall and Lingwood. Potentially following the side of the A47 or using PROW and quiet roads.	Blofield, Brundall, Lingwood	
27	As discussed in the Brundall Neighbourhood Plan, Policy 8 supports greater riverside access through the creation of a slipway and picnic area. Brooms Boats may be relocating from their riverside premises, which could provide opportunity for land purchase to create the new community space and riverside access.	Brundall	
28	The land to the East of Brundall Memorial Hall - Potential for a larger recreation ground for general public use. This would likely include less active uses such as picnic areas, trim track, etc.	Brundall	
29	The land to North of Brundall (Berryfields to Yarmouth Road) - Creation of a new sports field for team games e.g. football.	Brundall	
30	East of Brundall - Tree planting and walking link enhancement project to improve the GI corridor connecting the PROW from the Church North-East of Brundall to Highnoon Farm, then along Cuckoo Lane to Long Lane, and then to the East of Brundall.	Brundall	
31	A walking link along the south side of Brundall from Brundall Gardens to the School and Health Centre, away from The Street, which has a narrow pathway that is heavily by pedestrians. The route would pass through land currently owned by Brundall Gardens Marina, Brundall Parish Council and Bells Boatyard.	Brundall	
32	Church Fen, Brundall 1. Circular walk around church fen	Brundall	

No.	Project Description	Location	Standard
	- Potential to improve access to the river e.g. broken boardwalk boards require replacing, or additional mesh used to stop slipping. 2. There is potential to create better access for canoes to the River Yare via the Church Fen boardwalk. The water is approximately 500 metres from the small car parking area available.		
33	A safe walking route from Buckenham to the river (via Station Road), providing views over the river.	Buckenham	
34	The potential creation of walks linking all the railway stations across the East Broadland area. The routes will provide details and maps of walks from Brundall Gardens to Brundall to Buckenham to Cantley to Reedham, or from Brundall Gardens to Brundall to Lingwood to Acle. They will allow people to tailor the length of walks to their preferences and will be accessible from Norwich and Great Yarmouth. These walks will build upon the existing 'Railway Rambles from the Wherry Lines', accessible from the Norfolk Trails Website.	East Broadland Area	
35	Potential for established walks near Hassingham and Cantley, e.g. a walk at Grimmer Lane, Cantley and a circular walk at Cantley Fen.	Cantley, Hassingham	
36	Creation of a walking link following the Witton Run from Water Lane, Great Plumstead to the A47.	Great Plumstead	
37	Cycleway extension at Great Plumstead and improved cycle links. <ul style="list-style-type: none"> Part 1: Feasibility study into the best cycle route from Norwich (via the NDR crossing at Middle Road which links into the Pedalways and Broadland Way plans) to Great Plumstead, then from Great Plumstead, via Blofield Heath, to the Burlingham Trails. Part 2: Potential project to finish the Water Lane cycleway and create a safer route for cyclists along Middle Road and Hospital Road with consideration of the NDR impact on traffic flows. Connectivity between the Plumsteads and North Burlingham is in the GNIP (Ref: GI P2.3, in GNGB, 2015). 	Great Plumstead, Norwich, North Burlingham	
38	Walking routes from the Great and Little Plumstead to Norwich (via the NDR crossing at Middle Road which links into the Pedalways and Broadland Way plans). Includes potential footpath improvements and the continuation along Water Lane.	Great Plumstead, Little Plumstead, Norwich	
39	Potential for a footpath and/or cycleway along Hare Road, Great Plumstead.	Great Plumstead	
40	Heritage Walk and Cycle Routes: <ul style="list-style-type: none"> A 20 mile cycle circular route passing painted churches. This would also pass a number of cafés and pubs in Hemblington, South Walsham, Acle and Upton. A 12 mile heritage and church walking circular, with links through Hemblington, North Burlingham, South Walsham, Upton and Acle. A copy of the routes proposed have been provided to the Norfolk County Council, but require mapping, ground truthing and promotion.	Hemblington, North Burlingham, South Walsham, Upton, Acle	
41	Potential figure of 8 circular walks to the north and east of Lingwood <ol style="list-style-type: none"> Follow PROW north from Church Road to the A47, then east to Lingwood Lane to Lodge Road and back to Church Road. Start at School Road, follow PROW South-East, then down South Burlingham Road, then West at St Edmunds Church along permissive path to Lingwood, then follow Station Road North. 	Lingwood	
42	Potential to extend the woodland between Care Farm and the school on Station Road in Lingwood. Tree replacement and hedgerow gapping required in the surrounding fields. Use of a variety of field side trees.	Lingwood	

No.	Project Description	Location	Standard
43	A Garden Centre circular walk around Moulton St Mary, with links to Moulton Nurseries Plant Centre. The walk will use the 3 PROW to the South-East of Moulton St Mary (Beighton FP3, Beighton FP4 and Beighton FP7) that link to the garden centre. A walking link alongside the Reedham Road would complete the circular.	Moulton St Mary	
44	A new South Walsham circular walk, follows the footpath from Chameryhall Lane through Town Green Wood and then behind houses to Church Close and then back along The Street and Burlingham Road. This could form connections with the circular walks in Project 12. Please note: the circular walk goes around the edge of a statutory designated site.	South Walsham	
45	Potential walking link from the Panxworth Road to the new development site at South Walsham, connected to the Burlingham Road, creating a short circular route.	South Walsham	
46	A clearly signed and safe walking link between Upton or Acle and South Walsham for school children coming from Upton. This is an extension of the safe walking link in Project 12.	South Walsham, Upton, Acle	
47	A link from Stumpshaw Pit circular walking route (see Project 15) through Strumpshaw Wood to Barn Hill and the PROW (Strumpshaw FP6). The Wood is currently under private ownership, so would require land purchase or permissive agreement.	Strumpshaw	
48	Strumpshaw Hall off-road cycling route. There is currently limited facilities in the East Broadland area for off-road cycling. The RSPB working with Sports England have proposed an area at Stumpshaw Hall as a potential location.	Strumpshaw	
49	A walking route along Plumstead Road East linking Thorpe End/Parish Council to Sprowston woodland (Racecourse Plantation).	Thorpe End	
50	Potential to extend Thorpe End Woodland Walk around Housing Estate (cited in the Plumsteads Neighbourhood Plan).	Thorpe End	
51	Cycle rack provision at various GI sites, e.g. Strumpshaw Pit, Upton Fen, and North Burlingham (depending on visitor aspirations of site). This has the potential to enable greater numbers of residents to visit local GI and encourages low carbon lifestyles, meeting the Climate Change Policy requirements in the JCS (2014) and The GI Strategy (GNDP, 2007).	Upton, Strumpshaw, North Burlingham	





For further information please contact Broadland District Council Planning:
planning.administration@broadland.gov.uk | 01603 430509



Dr Richard Hunt
The Planning Inspectorate
3D Eagle Wing
Temple Quay House
2 The Square
Bristol
BE1 6PN

Ms Cally Smith
Head of Planning
01603 756029
cally.smith@broads-authority.gov.uk

Date 16 February 2018

Our ref BA/2018/0055/SCOCON Your ref TR010040-000004

Dear Dr Richard Hunt

Application No : BA/2018/0055/SCOCON
Proposal : A47 Blofield to North Burlingham Project Team request for Scoping
Opinion.
Address : A47 Blofield To North Burlingham, , ,
Applicant : Highways England

I write further to the above proposal. I can confirm that the Broads Authority does not have any comments to make regarding this consultation.

Yours sincerely


Cally Smith
Head of Planning

From: [Galloway, Davina](#)
To: [A47 Blofield to North Burlingham](#)
Subject: A47 Blofield to North Burlingham - EIA Scoping Notification and Consultation
Date: 08 February 2018 10:32:22

For the Attention of Richard Hunt

Thank you for the email dated 7 February. Highways England (Spatial Planning) has no comment to make on this notification.

Regards.

Davina

Davina Galloway

Asset Manager

Operations 'East'

Highways England | Woodlands | Manton Lane | Bedford | MK41 7LW

Tel: +44 (0) 300 4704840

Web: <http://www.highways.gov.uk>

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A47 Wansford to Sutton Project
Highways England
Woodlands
Manton Lane
Bedford
MK41 7LW



A47 Improvement Programme- A47 Blofield to North Burlingham

12/02/2018

This is a response issued by Fisher German LLP on behalf of Cadent Gas Limited regarding the A47 Improvement Programme Development Consent Order. On behalf of Cadent we have reviewed the information and wish to make the following comments:

In respect of existing Cadent infrastructure, Cadent will require appropriate protection for retained apparatus including compliance with relevant standards for works proposed within close proximity of its apparatus,

Cadent Infrastructure is within or in close proximity to the Proposed Order Limits. Please see attached plans highlighting the locations of these Cadent assets.

The Cadent apparatus that has been identified as being in the vicinity of your proposed works is:

- High or Intermediate pressure (above 2 bar) Gas Pipelines and associated equipment
- Low or Medium pressure (below 2 bar) gas pipes and associated equipment. (As a result it is highly likely that there are gas services and associated apparatus in the vicinity)

Where the Promoter intends to acquire land, extinguish rights, or interfere with any of Cadent's apparatus, Cadent will require appropriate protection and further discussion on the impact to its apparatus and rights including adequate Protective Provisions.

Key Considerations:

- Cadent has a Deed of Grant of Easement for each pipeline, which prevents the erection of permanent / temporary buildings, or structures, change to existing ground levels, storage of materials etc.

Pipeline Crossings:

- Where existing roads cannot be used, construction traffic should ONLY cross the pipeline at previously agreed locations.
- The pipeline shall be protected, at the crossing points, by temporary rafts constructed at ground level. The third party shall review ground conditions, vehicle types and crossing frequencies to determine the type and construction of the raft required.
- The type of raft shall be agreed with Cadent prior to installation.
- No protective measures including the installation of concrete slab protection shall be installed over or near to the Cadent pipeline without the prior permission of Cadent.
- Cadent will need to agree the material, the dimensions and method of installation of the proposed protective measure.
- The method of installation shall be confirmed through the submission of a formal written method statement from the contractor to Cadent.




- Please be aware that written permission is required before any works commence within the Cadent easement strip.
- A Cadent representative shall monitor any works within close proximity to the pipeline.
- A Deed of Consent is required for any crossing of the easement

New Service Crossing:

- New services may cross the pipeline at perpendicular angle to the pipeline i.e. 90 degrees.
- A new service should not be laid parallel within an easement
- A Cadent representative shall supervise any new service crossing of a pipeline. Any exposed pipeline should be suitably supported and removed prior to backfilling
- An exposed pipeline should be suitable supported and removed prior to backfilling
- An exposed pipeline should be protected by matting and suitable timber cladding
- For pipe construction involving deep excavation (<1.5m) in the vicinity of grey iron mains, the model consultative procedure will apply therefore an integrity assessment must be conducted to confirm if diversion is required
- A Deed of Consent is required for any new service crossing the easement.
- Where a new service is to cross over the pipeline a clearance distance of 0.6 metres between the crown of the pipeline and underside of the service should be maintained. If this cannot be achieved the service shall cross below the pipeline with a clearance distance of 0.6 metres.

General Notes on Pipeline Safety:

- You should be aware of the Health and Safety Executives guidance document HS(G) 47 "Avoiding Danger from Underground Services", and Cadent's specification for Safe Working in the Vicinity of Cadent High Pressure gas pipelines and associated installations - requirements for third parties T/SP/SSW22. Digsafe leaflet Excavating Safely - Avoiding injury when working near gas pipes
- Cadent will also need to ensure that our pipelines access is maintained during and after construction.
- The actual depth and position must be confirmed on site by trial hole investigation under the supervision of a Cadent representative. Ground cover above our pipelines should not be reduced or increased.
- If any excavations are planned within 3 metres of Cadent High Pressure Pipeline or, within 10 metres of an AGI (Above Ground Installation), or if any embankment or dredging works are proposed then the actual position and depth of the pipeline must be established on site in the presence of a Cadent representative. A safe working method agreed prior to any work taking place in order to minimise the risk of damage and ensure the final depth of cover does not affect the integrity of the pipeline.
- Excavation works may take place unsupervised no closer than 3 metres from the pipeline once the actual depth and position has been confirmed on site under the supervision of a Cadent representative. Similarly, excavation with hand held power tools is not permitted within 1.5 metres from our apparatus and the work is undertaken with NG supervision and guidance.

- 
- The above guidance is not exhaustive and your works proposals must always be submitted to Cadent's Plant Protection department in advance of commencement of works on site.

Yours Faithfully



Iain Long
Fisher German LLP

On behalf of Vicky Sterling
Land & Property Services

Continuation sheet.

Plan/s



Guidance

To download a copy of the HSE Guidance HS(G)47, please use the following link:

<http://www.hse.gov.uk/pubns/books/hsg47.htm>

Dial Before You Dig Pipelines Guidance:

<https://cadentgas.com/Digging-safely/Dial-before-you-dig>

Essential Guidance document:

https://cadentgas.com/getattachment/Digging-safely/Work-safely-library/Promo-Essential-guidance/Essential_Guidance.pdf

Excavating Safely in the vicinity of gas pipes guidance (Credit card):

https://cadentgas.com/getattachment/Digging-safely/Work-safely-library/Promo-Excavating-safely-credit-card-gas/Excavating_Safely_Leaflet_Gas-1.pdf

Copies of all the Guidance Documents can also be downloaded from the National Grid Website:

<https://cadentgas.com/Digging-safely/Work-safely-library>

Cadent Gas Limited

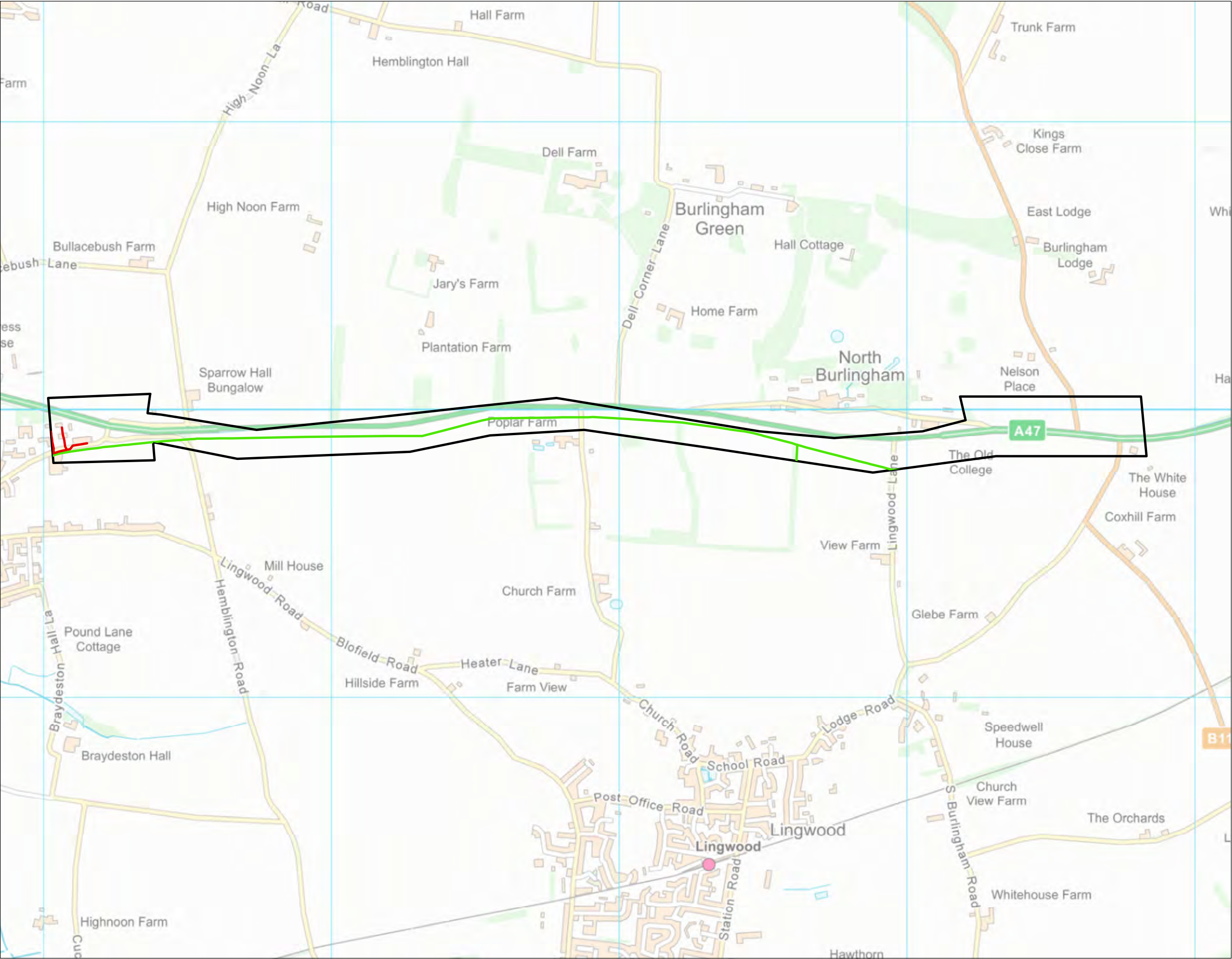
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Central Boulevard, Coventry CV7 8PE
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0800 111 999* (24hrs)
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5000419 (01/13)


Page 4 of 4





0160320
Metres

OVERVIEW WINDOW




LEGEND:

IP

LP

Proposed Dual Carriageway Area

REVISION: A


CLIENT: 

SCHEME:
A47 Blofield to North Burlingham

TITLE:
Interaction Plan


SCALE: 1:12,000 @ A3
DATE: 30/01/2018

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**FISHER
GERMAN**

The Estates Office
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Telephone 01530 412821
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DRAWING NO:
CADENT-2018-01-EP-IP-A47

Mr Richard Hunt - Senior EIA Adviser
The Planning Inspectorate

Our ref: AE/2018/122555/01-L01
Your ref: TR010040-000004

Via email only:
A47BlofieldtoNorthBurlingham@pins.gsi.gov.uk

Date: 07 March 2018

Dear Mr Hunt

PLANNING ACT 2008 (AS AMENDED) AND THE INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (THE EIA REGULATIONS) – REGULATIONS 10 AND 11

APPLICATION BY HIGHWAYS ENGLAND (THE APPLICANT) FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE A47 BLOFIELD TO NORTH BURLINGHAM (THE PROPOSED DEVELOPMENT)

SCOPING CONSULTATION AND NOTIFICATION OF THE APPLICANT'S CONTACT DETAILS AND DUTY TO MAKE AVAILABLE INFORMATION TO THE APPLICANT IF REQUESTED

Thank you for consulting us on the A47 Blofield to North Burlingham EIA Scoping Report, dated February 2018. We have reviewed the submitted document and have the following comments:

Chapter 8 Biodiversity.

We are satisfied at this stage that all species of primary concern for us have been identified. Further ecological surveys for bats, water voles and reptiles are to be carried out during the optimal survey time for each of the species during 2018. The presence of water voles is recorded to the north of the proposed works at Home Farm (TG3613210311), but further survey work may find evidence of water voles in the ditches or water features along the route. Further species information can be found through the Norfolk Biodiversity Information Service (NBIS: www.nbis.org.uk).

There is no evidence of any surveys for non-native invasive species. There are records of Winter Heliotrope (*Petasites fragrans*) at Burlingham. Appropriate measures should be in place to prevent the spread of this species within or between sites during excavations. More information can be found at <http://www.nonnativespecies.org>

East Anglia area (East) - Iceni House

Cobham Road, Ipswich, Suffolk, IP3 9JD

General Enquiries: 08708 506506 Fax: 01473 724205

Weekday Daytime calls cost 8p plus up to 6p per minute from BT Weekend Unlimited.

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Email: enquiries@environment-agency.gov.uk

Website: www.environment-agency.gov.uk

Within this type of landscape, this scheme should aim to bring an overall increase in the biodiversity, replacing habitats where loss is unavoidable, creating new habitat and enhancing existing habitats. Habitat creation should be considered for inclusion alongside or as part of roadside sustainable drainage schemes (SuDS), as well as roadside tree planting.

Chapter 9 Geology and Soils

Table 9.1 Baseline data - Hydrogeology

The Lowestoft Formation at this location is designated secondary aquifer (undifferentiated) not unproductive as stated.

Table 9.4 needs to include explicit reference to changes in groundwater flow and baseflow.

9.7.3 & 9.10.1

Prior to the investigation works, a preliminary risk assessment (PRA) for the area of interest will need to be undertaken to identify any other previous land uses which may have resulted in land contamination. We agree that a ground investigation will be required to determine the nature and extent of any contamination.

Chapter 13 Road Drainage and the Water Environment

Table 13.1 Summary of Existing Baseline

Flood risk is considered as part of the baseline data. The scoping report does not refer to the recently published Greater Norwich Area Strategic Flood Risk Assessment; Final Report: Level 1; November 2017. This provides information on all sources of flooding and is available from both the Greater Norwich and Broads Authority websites.

The potential for groundwater flooding is mentioned in both Chapters 13 and 9. Full details of the potential for flooding should be provided along with any necessary mitigation measures and an assessment of the degree to which mitigation measures might alter local groundwater flow and baseflow to local watercourses, other surface water features and abstractions.

We concur that full lists of all unlicensed abstractions should be sought and that all assessments should include the potential for an impact on them.

In respect of the baseline and Groundwater, we would highlight that the source protection zones (SPZs) in this area are currently under review and will be published later in 2018.

An assessment of climate change risks should include reference to impacts on groundwater levels and flow and potential impacts on all receptors i.e. surface water features, groundwater-fed features and surface and groundwater abstractions.

The 'Bure Operational' catchment needs to be assessed.

Future work needs to include a full assessment of the hydraulic connections between the shallow and in some cases deeper aquifer and surface water features, in particular in the Witton Run catchment.

WFD groundwater quality failures in terms of chemistry are to do with diffuse groundwater pollution.

It is important that shallow groundwater flow to watercourses is not significantly altered in the area of consented discharges.

The depth of any excavations needs to be assessed in terms of the depth of underlying deposits for the entire route to determine where working will extend into the shallow aquifer or chalk and where they will be in low permeability strata.

The report identifies that there may be opportunities for SuDS where this is appropriate, which we would support although see comments below. As mentioned above, SuDS schemes should be designed to provide for habitat enhancements.

The water framework directive (WFD) status of the river systems identified within the scoping report are sufficient for the Bure, Yare and Witton Run. However there is no mention of the WFD mitigation measures in place for each waterbody. Where appropriate this information can assist with identifying opportunity for enhancements.

With reference to 13.4.2; drainage proposals need to be carefully considered. Any infiltration proposals within SPZs for public water supply will need rigorous assessment concerning pollution potential; significant treatment trains may be required; it's possible that drainage in a public water supply SPZ may be unacceptable and will need to be relocated.

Similarly, more information will be required with regards to mitigating against pollution from road run off into the surrounding ditch and Dike networks, regardless of their WFD status. This will include an assessment of pollution impacts from routine run off to surface water.

Construction and demolition

13.7.2 & 13.7.9

We agree with the comments in these paragraphs. However, no provision appears to have been included to confirm the depth of groundwater beneath the application area. The depth of groundwater has implications both for construction and drainage design (particularly with regard to meeting our requirements for SuDS, see below).

We would also advise that it should be considered whether any required dewatering is an exempt activity in terms of environmental permitting. Further information can be found at: <https://www.gov.uk/government/publications/temporary-dewatering-from-excavations-to-surface-water>

Full details of any dewatering activities should be submitted for review along with a hydrogeological impact assessment.

13.7.4.

The location of all unlicensed abstraction needs to be known before any conclusions can be drawn regarding the risk of mobilising nitrates.

13.7.5.

Metaldehyde may rapidly degrade but it is still an issue in local watercourses.

Operation

13.7.12

We note that options for new road drainage are currently being assessed. We would recommend a review of the existing drainage to determine the location of outfalls, receptors and the presence of any water pollution control systems.

Any soakaways, infiltration basins and settlement ponds will require a full hydrogeological impact assessment with regards to aquifer and surface water quality and local abstractions; the location of such features in a public water supply SPZ will require rigorous assessment; it is possible that such schemes may be unacceptable depending on the proximity to significant abstractions.

Our general requirements with respect to SuDS drainage are as follows:

1. Infiltration sustainable drainage systems (SuDS) such as soakaways, unsealed porous pavement systems or infiltration basins shall only be used where it can be demonstrated that they will not pose a risk to the water environment.
2. Infiltration SuDS have the potential to provide a pathway for pollutants and must not be constructed in contaminated ground. They would only be acceptable if a phased site investigation showed the presence of no significant contamination.
3. Only clean water from roofs can be directly discharged to any soakaway or watercourse. Systems for the discharge of surface water from associated hard-standing, roads and impermeable vehicle parking areas shall incorporate appropriate pollution prevention measures and a suitable number of SuDS treatment train components appropriate to the environmental sensitivity of the receiving waters.
4. The maximum acceptable depth for infiltration SuDS is 2.0 m below ground level, with a minimum of 1.2 m clearance between the base of infiltration SuDS and peak seasonal groundwater levels.
5. Deep bore and other deep soakaway systems are not appropriate in areas where groundwater constitutes a significant resource (that is where aquifer yield may support or already supports abstraction).
6. SuDS should be constructed in line with good practice and guidance documents which include the SuDS Manual ([CIRIA C753](#), 2015 – the current reference in the report is to the 2007 document) and the [Susdrain website](#).

For further information on our requirements with regard to SuDS see our Groundwater protection position statements (2017), in particular Position Statements G1 and G9 – G13 available

at: <https://www.gov.uk/government/publications/groundwater-protection-position-statements>

13.8.5 – 18

We concur that groundwater levels and quality and discharges, abstractions and groundwater flooding will all need full assessment.

13.8.15 & 13.9.7

The drainage strategy developed must include sufficient pollution control and pollution prevention measures to ensure protection of the water environment.

13.9.2

Please be aware that the direct discharge of road drainage to groundwater would not be acceptable given the potential presence of hazardous substances, whose entry to groundwater must be prevented. This is likely to have implications for the use of deep bore soakaways.

Assessment of magnitude of impacts and significance of effects

Table 13.2 Criteria for estimating the importance of water environment attributes

Table 13.3 Estimating the magnitude of an impact on an attribute

Table 13.4 Definitions of overall significance of effect

These tables all appear to relate the value/importance of waterbodies to WFD status alone, which in our view is not appropriate. It is important that Water Framework Directive Classification is not used as a proxy for ecological value or sensitivity to impacts. The basic overarching requirements of the Directive are that there will be no deterioration from the class status as defined in the River Basin Management Plan, whatever that status is; and that there should be improvement where required to 'Good' ecological status or potential by 2027.

Given that those requirements apply to all water bodies, it is not appropriate to suggest that magnitude of impacts will vary with status. Additionally, status classification is defined by the lowest of up to 37 elements, meaning that sensitivity to particular impacts and the resulting effect on status can vary between water bodies depending on their particular characteristics, irrespective of status.

However, we do welcome the statement at 13.8.10 & 13.9.3 confirming that a preliminary WFD compliance assessment will be carried out in respect of both surface and groundwater bodies within the study area.

We would also suggest that Table 13.3 should explicitly include changes to groundwater flow.

Conclusion

13.10.1

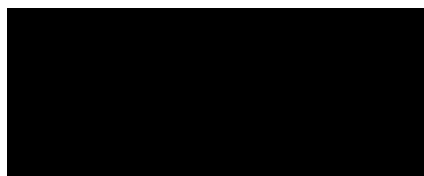
Potential receptors need to also include the Happisburgh Glacigenic Formation, a secondary A aquifer and groundwater within the Lowestoft Formation.

13.10.4

Although 13.10.1 identifies surface waterbodies as potential receptors, this paragraph only refers to a WFD assessment being required in order to consider effects on groundwater bodies. Reference to surface waterbodies should be included in line with 13.8.10 & 13.9.3.

We trust this advice is helpful.

Yours sincerely



MR MARTIN BARRELL
Sustainable Places - Planning Specialist

Direct dial 020 302 58450

Direct e-mail martin.barrell@environment-agency.gov.uk

CEMHD Policy - Land Use Planning
NSIP Consultations
Building 2.2, Redgrave Court
Merton Road, Bootle
Merseyside, L20 7HS

Your ref: TR010040
Our ref: 4.2.1.6280
HSE email: NSIP.applications@hse.gov.uk

FAO Stephanie Newman
The Planning Inspectorate
Bristol
BS1 6PN
By e-mail

28/02/18

Dear Ms Newman

**PROPOSED A47 Blofield to North Burlingham - EIA Scoping Notification and Consultation (the project)
PROPOSAL BY HIGHWAYS ENGLAND (the applicant)
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (as amended)
– Regulations 10 and 11**

Thank you for your letter of 07 February 2018 regarding the information to be provided in an environmental statement relating to the above project.

HSE does not comment on EIA Scoping Reports but the following information is likely to be useful to the applicant.

HSE's land use planning advice

Will the proposed development fall within any of HSE's consultation distances?

According to HSE's records there are no major accident hazard installations or pipelines in the vicinity of the infrastructure project, including the 500m buffer area and, therefore, we would not wish to comment on its siting.

Hazardous Substance Consent

The presence of hazardous substances on, over or under land at or above set threshold quantities (Controlled Quantities) will probably require Hazardous Substances Consent (HSC) under the Planning (Hazardous Substances) Act 1990 as amended. The substances, alone or when aggregated with others for which HSC is required, and the associated Controlled Quantities, are set out in The Planning (Hazardous Substances) Regulations 2015.

Hazardous Substances Consent would be required to store or use any of the Named Hazardous Substances or Categories of Substances at or above the controlled quantities set out in schedule 1 of these Regulations.

Further information on HSC should be sought from the relevant Hazardous Substances Authority.

Explosives sites

HSE has no comment to make as there are no licensed explosive sites in the vicinity.

Electrical Safety

No comment from a planning perspective

Please send any further electronic communication on this project directly to the HSE's designated e-mail account for NSIP applications. Alternatively any hard copy correspondence should be sent to:

Mr Dave Adams (MHPD)
NSIP Consultations
2.2 Redgrave Court

Merton Road, Bootle,
Merseyside L20 7HS

Yours sincerely,



Marion Davies
(CEMHD4 Policy)

Mr Michael Breslaw
The Planning Inspectorate
3D, Temple Quay House
Temple Quay
Bristol
BS1 6PN

Direct Dial: 01223 582775

Our ref: PL00332042

6 March 2018

Dear Mr Breslaw

Scoping Opinion for EIA for DCO for the A47 Blofield to Burlingham

Thank you for your letter of 8th February 2018 notifying Historic England of the Environmental Impact Assessment (EIA) Scoping Opinion for the proposed development at the A47 between Blofield and Burlingham.

The historic environment is a finite and non-renewable environmental resource which includes designated heritage assets, non-designated archaeology and built heritage, historic landscapes and unidentified sites of historic and/or archaeological interest. It is a rich and diverse part of England's cultural heritage and makes a valuable contribution to our cultural, social and economic life.

This development could, potentially, have an impact upon a number of designated heritage assets and their settings in the area around the site. In line with the advice in the National Planning Policy Framework (NPPF), we would expect the Environmental Statement to contain a thorough assessment of the likely effects which the proposed development might have upon those elements which contribute to the significance of these assets.

The Scoping document acknowledges that the proposed development has the potential for impacts on cultural heritage. We are pleased this will be dealt with in a specific chapter within the Environmental Statement. We advise that all supporting technical information (desk-based assessments, evaluation and post-excavation reports etc.) are included as appendices. Where relevant, the cultural heritage should be cross-referenced to other chapters or technical appendices; for example noise, light, traffic and landscape.

The EIA should consider the impact upon both designated and non-designated heritage assets. This should include the impact upon the setting of the heritage assets within the surrounding area.

This development could, potentially, have a significant impact upon a number of designated heritage assets and their settings in the area around the site. In line with



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the advice in the National Planning Policy Framework (NPPF), we would expect the Environmental Statement to contain a thorough assessment of the likely effects which the proposed development might have upon those elements which contribute to the significance of these assets.

Designated assets within 1km of the site include four grade I listed churches and over 20 grade II listed buildings.

We would also expect the Environmental Statement to consider the potential impacts on non-designated features of historic, architectural, archaeological or artistic interest, since these can also be of national importance and make an important contribution to the character and local distinctiveness of an area and its sense of place. This information is available via the local authority Historic Environment Record (www.heritagegateway.org.uk <<http://www.heritagegateway.org.uk>>) and relevant local authority staff.

We would strongly recommend that the applicant involves the Conservation Officer of Broadland District Council and the archaeological staff at Norfolk in the development of this assessment. They are best placed to advise on: local historic environment issues and priorities; how the proposal can be tailored to avoid and minimise potential adverse impacts on the historic environment; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of heritage assets.

There is also potential for undesignated buried archaeological remains within the proposed development site. The EIA should define (where possible) the nature, extent and significance of these assets in order to assess the impact from the proposed development. We welcome continued discussion as the project moves forward.

Historic England has had early pre-application discussions regarding the significance of the assets and the degree to which they might be impacted by the proposed development. In particular, discussion has focussed upon the impact on setting of the listed buildings.

Assessment of setting should not be restricted to visual impact, but should also consider other environmental factors such as noise, traffic and lighting, where relevant. The assessment should be carried out in accordance with established policy and guidance, including the National Planning Policy Framework. The Planning Practice Guidance contains guidance on setting, amplified by the Historic England document *Historic Environment Good Practice Advice in Planning Note 3 The Setting of Heritage Assets*, which provides a thorough discussion of setting and methods for considering the impact of development on setting, such as the use of matrices. Whilst standardised EIA matrices or are useful tools, we consider the analysis of setting (and the impact upon it) as a matter of qualitative and expert judgement which cannot be achieved solely by use of systematic matrices or scoring systems. Historic England



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therefore recommends that these should be seen primarily as material supporting a clearly expressed and non-technical narrative argument within the cultural heritage chapter. The EIA should use the ideas of benefit, harm and loss (as described in NPPF) to set out 'what matters and why' in terms of the heritage assets' significance and setting, together with the effects of the development upon them.

It is important that the assessment is designed to ensure that all impacts are fully understood. Section drawings and techniques such as photomontages are a useful part of this. Given the number of designated heritage assets within the area, we would welcome continued discussions with the applicant in order to agree the key sites and setting issues which will need to be addressed within the EIA. In particular any heritage specific viewpoints should be identified by the heritage consultant and should be included in the LVIA.

The assessment should also take account of the potential impact which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in the area. The assessment should also consider, where appropriate, the likelihood of alterations to drainage patterns that might lead to *in situ* decomposition or destruction of below ground archaeological remains and deposits, and can also lead to subsidence of buildings and monuments.

We have the following specific comments to make regarding the content of the Scoping Report:

We note the proposed assessment methodology is broadly in accordance with the requirements of the DMRB. We would suggest that in addition to the matrix assessment approach, some commentary is provided relating to heritage and impact on significance and setting.

Table 6.1 sets out the existing baseline in terms of designated and non-designated assets which is helpful. This would appear to be comprehensive.

At paragraph 6.5.1 we would refer the applicants to the revised version of the Good Practice Advice on Planning Note 3 - The Setting of Heritage Assets that was published in December 2017. <https://content.historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/heag180-gpa3-setting-heritage-assets.pdf/>>

At paragraph 6.6.1 there would appear to be some confusion regarding the level of engagement with Historic England to date on this project. Highways England and their consultants have held two meetings with Historic England on 31.8.16 and 10.5.17 during which the potential impacts on the historic environment of the A47 proposals were considered.



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Finally, we should like to stress that this response is based on the information provided in this consultation. To avoid any doubt, this does not affect our obligation to provide further advice and, potentially, object to specific proposals, which may subsequently arise, where we consider that these would have an adverse effect upon the historic environment.

If you have any queries about any of the above, or would like to discuss anything further, please contact me.

Yours sincerely,



Debbie Mack
Historic Environment Planning Adviser, Planning Group
Debbie.Mack@HistoricEngland.org.uk



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Ministry of Defence

Defence Infrastructure Organisation

Safeguarding Department
Statutory & Offshore

The Planning Inspectorate
3D Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN

Defence Infrastructure Organisation
Kingston Road
Sutton Coldfield
West Midlands
B75 7RL

Tel: +44 (0)121 311 3847 **Tel (MOD):** 94421 3847
Fax: +44 (0)121 311 2218
E-mail: DIO-safeguarding-statutory@mod.gov.uk
www.mod.uk/DIO

20 February 2018

Your reference: **TR010040-000004**
Our reference: 10042681

Dear Sir/Madam

MOD Safeguarding – SITE OUTSIDE SAFEGUARDING AREA (SOSA)

Proposal: Development Consent for the A47 Blofield to North Burlingham (the Proposed Development)

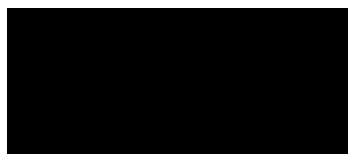
Location: A47 Blofield to North Burlingham

Grid Ref: 634221, 309948 – 637451, 309931

Thank you for consulting Defence Infrastructure Organisation (DIO) on the above proposed development. This application relates to a site outside of Ministry of Defence safeguarding areas. We can therefore confirm that the Ministry of Defence has no safeguarding objections to this proposal.

I trust this adequately explains our position on this matter, however should you have any questions regarding this matter please do not hesitate to contact me.

Yours sincerely



Debbie Baker

Sent electronically to:

A47BlofieldtoNorthBurlingham@pins.gsi.gov.uk

Nick Dexter
DCO Liaison Officer
Land & Business Support

Nicholas.dexter@nationalgrid.com

Tel: +44 (0)7917 791925

www.nationalgrid.com

6th March 2018

Dear Sir / Madam,

Ref: TR010040 - A47 Blofield to North Burlingham - EIA Scoping Notification and Consultation

I refer to your letter dated 7th February 2018 in relation to the above proposed application for a Development Consent Order for the proposed A47 Blofield to North Burlingham scheme. Having reviewed the Scoping Report, I would like to make the following comments:

National Grid infrastructure within / in close proximity to the order boundary

Electricity Transmission

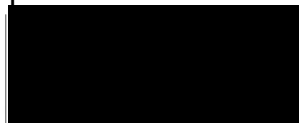
National Grid Electricity Transmission has no apparatus within or in close proximity to the proposed order limits.

Gas Transmission

National Grid Gas has no apparatus within or in close proximity to the proposed order limits.

If you require any further information please do not hesitate to contact me.

Y



Nick Dexter.

From: [NATS Safeguarding](#)
To: [Newman, Stephanie](#)
Subject: RE: A47 Blofield to North Burlingham - EIA Scoping Notification and Consultation (Our Ref: SG25831)
Date: 07 February 2018 12:48:43
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)

The proposed development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal.

However, please be aware that this response applies specifically to the above consultation and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application. This letter does not provide any indication of the position of any other party, whether they be an airport, airspace user or otherwise. It remains your responsibility to ensure that all the appropriate consultees are properly consulted.

If any changes are proposed to the information supplied to NATS in regard to this application which become the basis of a revised, amended or further application for approval, then as a statutory consultee NERL requires that it be further consulted on any such changes prior to any planning permission or any consent being granted.

Yours Faithfully

NATS

NATS Safeguarding

D: 01489 444687

E: natssafeguarding@nats.co.uk

4000 Parkway, Whiteley,
Fareham, Hants PO15 7FL
www.nats.co.uk



From: Newman, Stephanie [<mailto:Stephanie.Newman@pins.gsi.gov.uk>]
Sent: 07 February 2018 11:36
Subject: A47 Blofield to North Burlingham - EIA Scoping Notification and Consultation

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

Dear Sir/Madam

Please see attached correspondence on the proposed **A47 Blofield to North Burlingham**.

Please note the deadline for consultation responses is **7 March 2018**, and is a statutory requirement that cannot be extended.

Kind regards,

Stephanie Newman

EIA and Land Rights Advisor
Major Applications & Plans

The Planning Inspectorate, Temple Quay House, Temple Quay, Bristol, BS1 6PN

Direct line: 0303 444 5633

Helpline: 0303 444 5000

Email: Stephanie.newman@pins.gsi.gov.uk

Web: infrastructure.planninginspectorate.gov.uk (National Infrastructure Planning)

Web: www.gov.uk/government/organisations/planning-inspectorate (The Planning Inspectorate)

Twitter: @PINSgov

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From: [ESP Utilities Group Ltd](#)
To: [A47 Blofield to North Burlingham](#)
Subject: Your Reference: TR010040-000004. Our Reference: PE134367. Plant Not Affected Notice from ES Pipelines
Date: 08 February 2018 12:27:59

A47 Blofield to North Burlingham
The Planning Inspectorate

8 February 2018

Reference: TR010040-000004

Dear Sir/Madam,

Thank you for your recent plant enquiry at (TR010040-000004).

I can confirm that ESP Gas Group Ltd has no gas or electricity apparatus in the vicinity of this site address and will not be affected by your proposed works.

ESP are continually laying new gas and electricity networks and this notification is valid for 90 days from the date of this letter. If your proposed works start after this period of time, please re-submit your enquiry.

Important Notice

Please be advised that any enquiries for ESP Connections Ltd, formerly known as British Gas Connections Ltd, should be sent directly to us at the address shown above or alternatively you can email us at: PlantResponses@espipelines.com

Yours faithfully,

Alan Slee
Operations Manager



Bluebird House
Mole Business Park
Leatherhead
KT22 7BA

☎ 01372 587500 📠 01372 377996

<http://www.espug.com>

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From: [Ben Rowe](#) on behalf of [Planning Department](#)
To: [Newman, Stephanie](#)
Subject: A47 Blofield to North Burlingham - EIA Scoping Notification and Consultation
Date: 07 February 2018 15:00:10

Further to your scoping consultation I confirm that North Norfolk District Council has no comment to make.

Regards

Ben

Ben Rowe

Assistant Technical Officer
+441263 516141

>

From: Newman, Stephanie [mailto:Stephanie.Newman@pins.gsi.gov.uk]
Sent: 07 February 2018 11:36
Subject: BEN dealing - A47 Blofield to North Burlingham - EIA Scoping Notification and Consultation

Dear Sir/Madam

Please see attached correspondence on the proposed **A47 Blofield to North Burlingham**.

Please note the deadline for consultation responses is **7 March 2018**, and is a statutory requirement that cannot be extended.

Kind regards,

Stephanie Newman

EIA and Land Rights Advisor
Major Applications & Plans

The Planning Inspectorate, Temple Quay House, Temple Quay, Bristol, BS1 6PN

Direct line: 0303 444 5633

Helpline: 0303 444 5000

Email: Stephanie.newman@pins.gsi.gov.uk

Web: infrastructure.planninginspectorate.gov.uk (National Infrastructure Planning)

Web: www.gov.uk/government/organisations/planning-inspectorate (The Planning Inspectorate)

Twitter: [@PINSgov](https://twitter.com/PINSgov)

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From: [Brown, Mark](#)
To: [A47 Blofield to North Burlingham](#)
Subject: EIA Scoping Consultation - A47 Blofield to North Burlingham
Date: 08 February 2018 15:36:59

Dear Sir/Madam,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) – Regulations 10 and 11 Application by Highways England (the Applicant) for an Order granting Development Consent for the A47 Blofield to North Burlingham (the Proposed Development)
Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested

Thank you for consulting Norwich City Council on the above. I can confirm that we do not wish to comment on the scope of the EIA.

The above is an officer level response.

Kind regards

Mark Brown
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Planning Services
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Customer Services
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Electra Way
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BY EMAIL ONLY

Dear Sir/Madam

Environmental Impact Assessment Scoping consultation (Regulation 15 (3) (i) of the EIA Regulations 2011):

Proposal: Application by Highways England (the Applicant) for an Order granting Development Consent for the A47 Blofield to North Burlingham (the Proposed Development)
Location: A47 Blofield to North Burlingham, Norfolk

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in your consultation dated 7 February 2018 which we received on the same date.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Case law¹ and guidance² has stressed the need for a full set of environmental information to be available for consideration prior to a decision being taken on whether or not to grant planning permission. Annex A to this letter provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for this development.

Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. For any queries relating to the specific advice in this letter only please contact Louise Oliver on 020802 64893. For any new consultations, or to provide further information on this consultation please send your correspondences to consultations@naturalengland.org.uk.

Yours faithfully

¹ Harrison, J in *R. v. Cornwall County Council ex parte Hardy* (2001)

² *Note on Environmental Impact Assessment Directive for Local Planning Authorities* Office of the Deputy Prime Minister (April 2004) available from <http://webarchive.nationalarchives.gov.uk/+http://www.communities.gov.uk/planningandbuilding/planning/sustainability/environmental/environmentalimpactassessment/noteenvironmental/>

Annex A – Advice related to EIA Scoping Requirements

1. General Principles

Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) Regulations 2011, sets out the necessary information to assess impacts on the natural environment to be included in an ES, specifically:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases.
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen.
- A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors.
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects. Effects should relate to the existence of the development, the use of natural resources and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment.
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.
- A non-technical summary of the information.
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.

It will be important for any assessment to consider the potential cumulative effects of this proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the 'in combination' effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

2. Biodiversity and Geology

2.1 Ecological Aspects of an Environmental Statement

Natural England advises that the potential impact of the proposal upon features of nature conservation interest and opportunities for habitat creation/enhancement should be included within this assessment in accordance with appropriate guidance on such matters. Guidelines for Ecological Impact Assessment (EcIA) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) and are available on their website.

EcIA is the process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components. EcIA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal.

The National Planning Policy Framework sets out guidance in S.118 on how to take account of biodiversity interests in planning decisions and the framework that local authorities should provide to assist developers.

2.2 Internationally and Nationally Designated Sites

The ES should thoroughly assess the potential for the proposal to affect designated sites. European sites (e.g. designated Special Areas of Conservation and Special Protection Areas) fall within the scope of the Conservation of Habitats and Species Regulations 2017. In addition paragraph 118 of the National Planning Policy Framework requires that potential Special Protection Areas, possible Special Areas of Conservation, listed or proposed Ramsar sites, and any site identified as being necessary to compensate for adverse impacts on classified, potential or possible SPAs, SACs and Ramsar sites be treated in the same way as classified sites.

Under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 an appropriate assessment needs to be undertaken in respect of any plan or project which is (a) likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and (b) not directly connected with or necessary to the management of the site.

Should a Likely Significant Effect on a European/Internationally designated site be identified or be uncertain, the competent authority (in this case the Local Planning Authority) may need to prepare an Appropriate Assessment, in addition to consideration of impacts through the EIA process.

Sites of Special Scientific Interest (SSSIs) and sites of European or international importance (Special Areas of Conservation, Special Protection Areas and Ramsar sites)

The development site is close to the following designated nature conservation site(s):

- The Broads Special Area of Conservation (SAC)
- Broadland Special Area of Conservation (SPA)
- Broadland Ramsar site
- Damgate Marshes, Acle Site of Special Scientific Interest (SSSI)
- Decoy Carr, Acle SSSI
- Halvergate Marshes SSSI
- Yare Broads and Marshes SSSI
- Upton Broad and Marshes SSSI
- Further information on the SSSIs and their special interest features can be found at www.magic.gov. The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within these sites these sites and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects.
- Natura 2000 network site conservation objectives are available on our internet site <http://publications.naturalengland.org.uk/category/6490068894089216>

2.3 Regionally and Locally Important Sites

The EIA will need to consider any impacts upon local wildlife and geological sites. Local Sites are identified by the local wildlife trust, geoconservation group or a local forum established for the purposes of identifying and selecting local sites. They are of county importance for wildlife or geodiversity. The Environmental Statement should therefore include an assessment of the likely impacts on the wildlife and geodiversity interests of such sites. The assessment should include proposals for mitigation of any impacts and if appropriate, compensation measures. Contact the local wildlife trust, geoconservation group or local sites body in this area for further information.

2.4 Protected Species - Species protected by the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017

The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law, but advises on the procedures and legislation relevant to such species. Records of protected species should be sought from appropriate local biological record centres, nature conservation organisations, groups and individuals; and consideration should be given to the wider context of the site for example in

terms of habitat linkages and protected species populations in the wider area, to assist in the impact assessment.

The conservation of species protected by law is explained in Part IV and Annex A of Government Circular 06/2005 *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System*. The area likely to be affected by the proposal should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES.

In order to provide this information there may be a requirement for a survey at a particular time of year. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and where necessary, licensed, consultants. Natural England has adopted [standing advice](#) for protected species which includes links to guidance on survey and mitigation.

2.5 Habitats and Species of Principal Importance

The ES should thoroughly assess the impact of the proposals on habitats and/or species listed as 'Habitats and Species of Principal Importance' within the England Biodiversity List, published under the requirements of S41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act 2006 places a general duty on all public authorities, including local planning authorities, to conserve and enhance biodiversity. Further information on this duty is available here <https://www.gov.uk/guidance/biodiversity-duty-public-authority-duty-to-have-regard-to-conserving-biodiversity>.

Government Circular 06/2005 states that Biodiversity Action Plan (BAP) species and habitats, 'are capable of being a material consideration...in the making of planning decisions'. Natural England therefore advises that survey, impact assessment and mitigation proposals for Habitats and Species of Principal Importance should be included in the ES. Consideration should also be given to those species and habitats included in the relevant Local BAP.

Natural England advises that a habitat survey (equivalent to Phase 2) is carried out on the site, in order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys);
- Additional surveys carried out as part of this proposal;
- The habitats and species present;
- The status of these habitats and species (e.g. whether priority species or habitat);
- The direct and indirect effects of the development upon those habitats and species;
- Full details of any mitigation or compensation that might be required.

The development should seek if possible to avoid adverse impact on sensitive areas for wildlife within the site, and if possible provide opportunities for overall wildlife gain.

The record centre for the relevant Local Authorities should be able to provide the relevant information on the location and type of priority habitat for the area under consideration.

2.6 Contacts for Local Records

Natural England does not hold local information on local sites, local landscape character and local or national biodiversity priority habitats and species. We recommend that you seek further information from the appropriate bodies (which may include the local records centre, the local wildlife trust, local geoconservation group or other recording society and a local landscape characterisation document).

Local Record Centre (LRC) in Norfolk please contact:

Norfolk Biodiversity Information Service (NBIS), (hosted by Norfolk County Council)
Community and Environmental Services
6th Floor, County Hall
Martineau Lane
NORWICH, NR1 2DH

Telephone: 01603 638027 Email: nbis@norfolk.gov.uk

3. Designated Landscapes and Landscape Character

Nationally Designated Landscapes

As the development site is close to The Broads, which is a member of the National Park family, consideration should be given to the direct and indirect effects upon this designated landscape and in particular the effect upon its purpose for designation within the environmental impact assessment, as well as the content of the relevant management plan for The Broads.

Landscape and visual impacts

Natural England would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography. The European Landscape Convention places a duty on Local Planning Authorities to consider the impacts of landscape when exercising their functions.

The EIA should include a full assessment of the potential impacts of the development on local landscape character using [landscape assessment methodologies](#). We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character, as detailed proposals are developed.

Natural England supports the publication *Guidelines for Landscape and Visual Impact Assessment*, produced by the Landscape Institute and the Institute of Environmental Assessment and Management in 2013 (3rd edition). The methodology set out is almost universally used for landscape and visual impact assessment.

In order to foster high quality development that respects, maintains, or enhances, local landscape character and distinctiveness, Natural England encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development reflecting local design characteristics and, wherever possible, using local materials. The Environmental Impact Assessment process should detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.

The assessment should refer to the relevant [National Character Areas](#) which can be found on our website. Links for Landscape Character Assessment at a local level are also available on the same page.

Heritage Landscapes

You should consider whether there is land in the area affected by the development which qualifies for conditional exemption from capital taxes on the grounds of outstanding scenic, scientific or historic interest. An up-to-date list may be obtained at www.hmrc.gov.uk/heritage/lbsearch.htm.

4. Access and Recreation

Natural England encourages any proposal to incorporate measures to help encourage people to access the countryside for quiet enjoyment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways are to be encouraged. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

Rights of Way, Access Land, and National Trails

The EIA should consider potential impacts on access land, public open land and rights of way routes in the vicinity of the development. Appropriate mitigation measures should be incorporated for any adverse impacts. We also recommend reference to the relevant Right of Way Improvement Plans (ROWIP) to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

5. Soil and Agricultural Land Quality

Impacts from the development should be considered in light of the Government's policy for the protection of the best and most versatile (BMV) agricultural land as set out in paragraph 112 of the NPPF. We also recommend that soils should be considered under a more general heading of sustainable use of land and the ecosystem services they provide as a natural resource in line with paragraph 109 of the NPPF.

Soil and Agricultural Land Quality

Soil is a finite resource that fulfils many important functions and services (ecosystem services) for society, for example as a growing medium for food, timber and other crops, as a store for carbon and water, as a reservoir of biodiversity and as a buffer against pollution. It is therefore important that the soil resources are protected and used sustainably.

The applicant should consider the following issues as part of the Environmental Statement:

1. The degree to which soils are going to be disturbed/harmed as part of this development and whether 'best and most versatile' agricultural land is involved.

This may require a detailed survey if one is not already available. For further information on the availability of existing agricultural land classification (ALC) information see www.magic.gov.uk. Natural England Technical Information Note 049 - [*Agricultural Land Classification: protecting the best and most versatile agricultural land*](#) also contains useful background information.

2. If required, an agricultural land classification and soil survey of the land should be undertaken. This should normally be at a detailed level, eg one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, ie 1.2 metres.
3. The Environmental Statement should provided details of how any adverse impacts on soils can be minimised. Further guidance is contained in the [*Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites*](#).

As identified in the NPPF new sites or extensions to new sites for peat extraction should not be granted permission by Local Planning Authorities or proposed in development plans.

6. Air Quality

Air quality in the UK has improved over recent decades but air pollution remains a significant issue; for example over 97% of sensitive habitat area in England is predicted to exceed the critical loads for ecosystem protection from atmospheric nitrogen deposition ([England Biodiversity Strategy](#), Defra 2011). A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The assessment should take account of the risks of air pollution and how these can be managed or reduced. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk). Further information on air pollution modelling and assessment can be found on the Environment Agency website.

7. Climate Change Adaptation

The [England Biodiversity Strategy](#) published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify how the development's effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained. The NPPF requires that the planning system should contribute to the enhancement of the natural environment 'by establishing coherent ecological networks that are more resilient to current and future pressures' ([NPPF](#) Para 109), which should be demonstrated through the ES.

8. Cumulative and in-combination effects

A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

The ES should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment, (subject to available information):

- a. existing completed projects;
- b. approved but uncompleted projects;
- c. ongoing activities;
- d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
- e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

via e-mail

The Planning Inspectorate
Temple Quay House
Temple Quay
Bristol
BS1 6PN

NCC contact number: 0344 800 8020
Textphone: 0344 800 8011

Your Ref: NA
Date: 26 February 2018

My Ref: FWS/18/8/6074
Tel No.: 0344 800 8020
Email: llfa@norfolk.gov.uk

Dear Sir,

A47 Blofield to North Burlingham – Development Consent Order

Thank you for your consultation on the above site, received on 8 February 2018. We have reviewed the request as submitted and wish to make the following comments.

We note that the proposed scheme will:

- Have a total length of new carriageway of 4.5km, including an upgrade of a 2.6km section of single carriageway to dual carriageway between Blofield and North Burlingham.
- Consist of a site area within the DCO site boundary of 104ha.
- Construct a new section of off-line dual carriageway.
- Provide appropriate junction improvements.

For information we are aware from local knowledge that the A47 flooded in the summer of 2014 at the location of the overland flow path shown on the Environment Agency Surface Water Mapping. The flood event was not formally investigated by us, the LLFA, and impacts of the flooding are unknown. It does however highlight that the design of the scheme in this area of the scheme should be carefully considered and mitigation proposed to avoid the overland flow path.

The Surface Water Management Strategy for Norfolk and the Surface Water Management Plan for Norwich urban area can be found on our website at <https://www.norfolk.gov.uk/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/flood-and-water-management-policies>

Whether or not an EIA/ES is required we consider that the following issues should be considered and addressed as part of the development and mitigation agreed in conjunction with the LLFA and other appropriate authorities prior to commencement of the scheme;

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We strongly recommend that any EIA/ES includes or planning application for development is accompanied by a flood risk assessment (FRA) / surface water drainage strategy to address

- local sources of flood risk, including those from ordinary watercourses, surface water flow and groundwater
- how surface water drainage will be managed on site and show compliance with the written Ministerial Statement HCWS 161 by ensuring that Sustainable Drainage Systems for the management of run-off are put in place.

This supporting information would assess the potential for the development to increase the risk of flooding from the proposal or how surface water runoff through the addition of hard surfaces. It will show how this will be managed to ensure that the development does not increase flood risk on the site or elsewhere, in line with National Planning Policy Framework (paragraph 103).

In this particular case this would include appropriate information on;

- Sustainable Drainage Systems (SuDS) proposals in accordance with appropriate guidance including “Non-statutory technical standards for sustainable drainage systems” March 2015 by Department for Environment, Food and Rural Affairs.
- Appropriate assessment and mitigation of sources of fluvial (ordinary watercourse) flooding, surface water flooding originating from offsite that may affect the development and any potential for groundwater flooding.
- Provision of surface water modelling of overland flow routes and mitigation provided to show how flood risk will not be increased elsewhere. This may include dry culverts sized for the 1 in 100 year plus climate change allowance.
- Where any SuDS are proposed it is important to demonstrate that the SuDS hierarchy has been followed both in terms of:
 - surface water disposal location, prioritised in the following order: disposal of water to shallow infiltration, to a watercourse, to a surface water sewer, combined sewer / deep infiltration (generally greater than 2m below ground level),
 - the SuDS components used within the management train (source, site and regional control) to address flood risk and water quality mitigation required from the new development
 - As there are few watercourses marked on Ordnance Survey mapping any constructed (conveyance ditch) connection to an existing watercourse must be clearly demonstrated to be feasible and provide the in principal agreements from any landowners. It would also have to clearly be shown what appropriate body would maintain it.

At least one feasible proposal for the disposal of surface water drainage should be demonstrated and should be supported by the inclusion of appropriate supporting information. Onsite, infiltration testing, in accordance with BRE365 or equivalent should be undertaken to find out if infiltration is viable across the site and at the depth and location of any infiltration drainage feature. Infiltration testing should be undertaken 3 times in quick succession at each location. Any drainage mitigation for the site should attenuate the post development runoff rate and volume to the equivalent pre development greenfield rate and volume up to the 1 in 100 plus climate change allowance.

Continued.../

We advise that any formal or informal drainage associated with existing developments or farmland should be maintained or diverted by the scheme to avoid future ponding against any infrastructure including embankments that may be created

We welcome that the applicant indicates that a Flood Risk Assessment (FRA) will be undertaken based on the requirements of National Planning Policy Framework (NPPF), Planning Practice Guidance (PPG), Design Manual for Roads and Bridges (DMRB) and the CIRIA SuDS Manual (Section 13 of the EIA Scoping Report (A47 Blofield to North Burlingham by Highways England, dated February 2018 version P02 PINS project reference number: TR010040 Highways England document reference: HEBLOFLD-MMSJV-EGN-000-RP-LX-00001.) It is noted that this report indicates some historical flooding experienced on the highway previously. The Scoping Report also identifies the area highlighted by the Environment Agency Risk of Surface Water Flood Map. There is one flow path which crosses the existing road and will also cross the proposed road (for all options) and there are ordinary watercourses / ditches that cross the area. Any ordinary watercourse has a fluvial flood risk attached to it but is not shown on the EA national scale fluvial flood mapping due to the modelling limitations. We expect that any ordinary watercourse be assessed and modelled if appropriate to should the associated flood zones, development is acceptable with or without mitigation and flood risk is not increased.

We suggest the following be considered:

- A site walkover to confirm the location of ordinary watercourses and any modelling that is required to inform the design of culvert crossings.
- If you intend to carry out a river survey to inform the hydraulic modelling any collected data and model produced should include all tributaries. We have included provided information on the flowlines of surface water which may help identify these on the ground if not shown on the Ordnance Survey or Environment Agency Fluvial Flood Map.
- Any collected topographic survey data should extend across the watercourse and any likely flood plain to enable modelling to accurately represent pre and post development scenarios.
- New culverts across the tributaries should be designed to an appropriate size to pass the 100 year plus climate change allowance.
- Any upgrades of culverts should aim to allow the flow of 1 in 100 year plus climate change design event but must also include an assessment to show how passing any additional flow downstream will not increase the current flood risk scenario.
- If there are any surface water flow paths identified crossing the development area, dry culverts may need to be provide up to the 1 in 100 year plus climate change design event. This would prevent ponding against infrastructure and prevent an increase of flood risk.
- Any new drainage infrastructure should include appropriate sustainable drainage design and address the appropriate flood risk and water quality mitigation requirements.
- New drainage infrastructure that is designed to attenuate any additional surface water runoff should remain outside the 1 in 100 year plus climate change flood areas for any source of flooding. This is to prevent the drainage becoming overwhelmed by flood water prior to being available for the runoff from the development.

Any Ordinary Watercourse Consent application would need to show how the flow in the watercourse will be maintained and how flood risk will not be increased elsewhere. It

Continued.../

would be supported by the relevant documents and technical drawings. We do not have detailed guidance on information required for consenting, however, the LLFA guidance on development (as a statutory consultee) with regard to the prevention of the increase in flood risk can be used as a general guide. This can be found on our website <https://www.norfolk.gov.uk/rubbish-recycling-and-planning/flood-and-water-management/information-for-developers>

We advise that any formal or informal drainage associated with existing developments or farmland should be maintained or diverted by the scheme to avoid future ponding against any embankments that may be created. In there is infilling of ponds, the inflows and outflows of these should be identified and diverted or other mitigation provided if they are found to be groundwater fed.

We also welcome that the applicant indicates that an FRA will include a drainage strategy and design appropriate SUDS features including the must up to date climate change allowances in accordance with current policy guidelines. The proposed drainage scheme should be tested with an addition of 20% and 40% climate change to consider if additional mitigation is required. It is also noted that the existing drainage scheme will only be utilised where the new development joins the existing. We note that the scoping report highlights that construction of large development schemes can cause additional runoff through the nature of removing topsoil and having temporary works. We would like to see that adequate measures are put in place to minimise temporary additional runoff and that this is diverted away from any final drainage scheme. This would be to minimise siltation and blockage of newly created drainage infrastructure.

We would like to highlight that; the drainage strategy should also contain a maintenance and management plan detailing the activities required and details of who will adopt and maintain the all the surface water drainage features for the lifetime of the development.

Please note, as there are works proposed as part of this application that are likely to affect flows in an ordinary watercourse, then the applicant is likely to need the approval of LLFA as Norfolk County Council. It should be noted that this approval is separate from planning approval. We would expect to be consulted on both the temporary works and permanent works required

Yours faithfully

Elaine

Elaine Simpson
Lead Local Flood Authority

Disclaimer

We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue.

Norfolk County Council Comments on the: A47 Blofield to Burlingham Dualling - Scoping Report

7th March 2018

1. Preface

- 1.1. The officer-level comments below are made on a without prejudice basis and the County Council reserves the right to make further comments on the emerging A47 Blofield to Burlingham Dualling project.

2. General Comments

- 2.1. The County Council (CC) welcomes the opportunity to comment on the above Scoping Report.
- 2.2. The CC welcomes reference in paragraphs 12.2.1 - 12.2.4 to the need to assess the Local Impact Area; the Wider Impact Area; and the Cumulative Impacts associated with other proposed A47 schemes on the County of Norfolk.
- 2.3. The EIA will need to assess the wider economic benefits arising from the above Road Improvement scheme both in terms of the scheme coming forward on its own and in combination with the other proposed A47 road schemes.
- 2.4. Welcome reference in the Report to the potential for community severance in paragraph 12.5.9 and reference to local community facilities in the table 12.1 on page 105 (including reference to Blofield Primary School). The EIA/ES will need to consider the potential issues of community severance and where necessary set out how this will be mitigated.
- 2.5. There is reference in paragraph 12.7.25 to a proposed NMU Overbridge which could potentially address some of the community severance issues. It is unclear whether the proposed overbridge forms part of the NSIP scheme. The status of the overbridge therefore needs to be clarified and its proposed route/alignment shown in the Scoping and other documents.
- 2.6. Paragraph 12.9.6 – welcome the list of social and community receptors which includes primary and secondary schools and community health facilities.
- 2.7. In addition to the above comments – Highways England (HE) needs to clarify the scope of the project. Paragraph 1.3.1 refers to the project comprising 2.6 km of new dual carriageway; whereas paragraph 2.4.1 refers to 4.5 km of improvements of which 2.6 km will be dualled. The Scoping Report and emerging documents need to clearly set out the scope of the project.
- 2.8. Should you have any queries with the above comments please call or email Stephen

Faulkner on 01603 222752 or email stephen.faulkner@norfolk.gov.uk.

3. **Transport**

- 3.1. Norfolk County Council supports the scheme objectives set out in Section 2.2
- 3.2. The description of the project in Section 2.4.2 does not make it clear exactly what the proposals are (eg NMU provision, extent of dualling, proposals for changes to local road network, junction standards). Because of this, it is also difficult to assess proposals to deal with impacts, such as those caused by diversions of traffic, not necessarily in the immediate vicinity of the proposed dualling scheme. Some of these impacts might affect areas outside of the DCO area set out in Appendix A of the scoping report.
- 3.3. Without knowing the broader likely impacts of the proposal, it is difficult to know whether the proposed areas to be assessed are correct. This comment applies to most if not all of the things proposed to be assessed.

The following sets out some areas for clarification:

- Air Quality: 5.2.2 sets out that “The study area for the local air quality assessment covers human health receptors and ecologically Designated Sites within 200m of roads that are expected to be affected by the Proposed Scheme” As stated, it is not clear what this extent might be (although 5.2.3 does give the criteria to be taken into account)
- Landscape: 6.2.1 states “The study area includes designated and non-designated cultural heritage assets within 1km of the Proposed Scheme.” Again, it is not known whether this is the correct area since it is not known how widespread the effects are likely to be (and in this case there is no criteria about changes that might lead to a substantive impact)
- People and Communities, Section 12: This is probably quite important to set some criteria about impacts because, if there is significant diversion of traffic during either operation or construction it could affect people and communities living some distance from the proposal and therefore outside of the areas proposed to be assessed.

- 3.4. Should you have any queries with the above comments please call or email David Cumming on 01603 224225 or email david.cumming@norfolk.gov.uk.

4. **Environment**

4.1. **Ecology**

The CC welcomes the Biodiversity Section (Section 8) of the EIA Scoping Report which includes sufficient information to inform the Environmental Statement (ES) part of the EIA.

- 4.2. The desktop study identifies all sites designated for nature conservation within 2km including locally designated County Wildlife Sites, and the Norfolk Biodiversity Information Service has been consulted for records of protected species within the

search area. This information guided the surveys undertaken as part of the Extended Phase 1 Habitat survey April 2016 and updated in 2017. (The full findings of the surveys are reported in the A47 Blofield to North Burlingham Junction Stage 2 Preliminary Ecological Appraisal).

A Habitat Regulations Assessment Screening Report (HRA) was undertaken to determine whether any adverse impacts on Natura 2000 sites. The HRA screening determined that there was the potential for effects on the following sites:

- The Broads SAC
- Broadland SPA
- Broadland Ramsar
- Breydon Water SPA
- Breydon Water Ramsar
- Paston Great Barn SAC

Detailed consultations have yet to be undertaken with various statutory and non-statutory bodies including Natural England, Environment Agency, Norfolk County Council, Norfolk Wildlife Trust and the RSPB. These organisations will need to be consulted fully during the EIA process and their responses will be included in the associated reporting.

There is potential for the scheme to have a direct impact on habitats and species including European and Internationally designated sites and protected species. These impacts have been identified and will be assessed appropriately in conversation with the appropriate responsible organisations. Mitigation will be proposed and replacement habitat or habitat improvements will be proposed within the ES.

The CC is satisfied that this has been identified and surveys will be ongoing in the first half of 2018. Monitoring will be proposed where required and will continue after construction of the scheme to monitor impacts.

All surveys and mitigation references, the accepted industry standard methodologies, will need to be outlined fully in the ES.

- 4.3. The CC agrees with the conclusion of the Ecology Section of the Scoping report that;

8.10.1 There is potential for significant direct and indirect effects to protected species, designated sites, and sensitive habitats as a result of the Proposed Scheme.

Subsequently, this warrants assessment to a Detailed level, in accordance with IAN 130/10.

8.10.2 This assessment will be presented within the ES.

4.4. **Landscape**

The CC is satisfied that HE have used the most appropriate guidance to undertake

the Scoping Report, and also that an appropriate study area has been considered. The existing and baseline knowledge seems accurate and considers the varying landscape characters along the length of the proposal, including the consideration of visual amenity, particularly from the extensive PRow network in the vicinity of the proposals.

The assessment of Landscape and Visual affects seems thorough and the CC satisfied that the conclusion of requiring a 'Detailed' level of assessment was reached correctly due to the potential significant effects on both landscape character and visual amenity. The proposals for this further assessment (a Detailed LVIA within the ES) including site visit appear suitable. This will allow a further understanding of the local landscape character to better assess the landscape value and sensitivity to change.

NB: 7.3.2 Broadland District Council, not Broadlands District Council

- 4.5. Should you have any queries with the above comments please call or email Ed Stocker on 01603 222218 or email NETI@norfolk.gov.uk.

5. **Historic Environment**

- 5.1. The Cultural Heritage chapter could be more explicit about what will actually be included in the corresponding chapter of the Environmental Statement. The ES should include both a desk-based assessment and the results of the archaeological field evaluation (geophysical survey and trial trenching).
- 5.2. Should you have any queries with the above comments please call or email Dr James Albone on 01362 869279 or email james.albone@norfolk.gov.uk.

6. **Lead Local Flood Authority (LLFA)**

- 6.1. Detailed LLFA comments are attached, see documents titled '*FWS_18_8_6074 LLFA Response Blo-Burl*' and '*Blofield to Burlingham Flow Map*'.

The Blofield to Burlingham Flow Map has been provided for information and should not be reproduced without the express permission of Norfolk County Council.

Catchment and flowpath caveats:

- Catchments and flowpaths have been created using a bare earth DTM derived from a LIDAR / NextMap composite at a horizontal grid resolution of 2m.
- The "bare earth" model means that most elevated features such as buildings and trees are ignored. Ground levels within these features are interpolated from the surrounding ground levels.
- In some cases the top of features may be represented rather than the opening through it.
- These features include road and railway embankments, bridges, subways and tunnels

- Other real world features such as walls, drop kerbs and speed bumps are not represented.
- Catchments and flow paths were created which do not take into consideration these real world features

6.2. Should you have any queries with the above comments please email the LLFA at llfa@norfolk.gov.uk.

7. Minerals and Waste

7.1. The Planning Policy context in the Scoping report only details the national planning policy context. Therefore the Scoping Report has not referred to Policy CS16 of the adopted Norfolk Core Strategy and Minerals and Waste Development Management Policies DPD (the 'Norfolk Minerals and Waste Core Strategy'). Policy CS16 is applicable to this proposal because part of the DCO site area is underlain by a mineral resource (sand and gravel) which is safeguarded as part of the Norfolk Minerals and Waste Core Strategy. Safeguarded mineral resources are derived primarily from the BGS mineral resources map (2004) as amended by the DiGMapGB-50 dataset. A duty is placed upon planning authorities to ensure that mineral resources are not needlessly sterilised, as indicated in National Planning Policy Framework paragraph 143, and 'A guide to mineral safeguarding in England' published jointly by DCLG and the BGS. Chapter 9 of the Scoping Report provides information on the geology of the DCO site. Paragraph 9.7.6 states "*Where practicable, material should be re-used on site provided performance criteria are met with respect to chemical composition and geotechnical parameters. This may be managed under a Materials Management Plan prepared in accordance with the CL: AIRE Code of Practice.*" Therefore, it is considered that the re-use of materials on site should include the use of sand and gravel mineral resources in the construction of the scheme, if the material meets the required specifications for highway construction and that this should be managed under a Materials Management Plan.

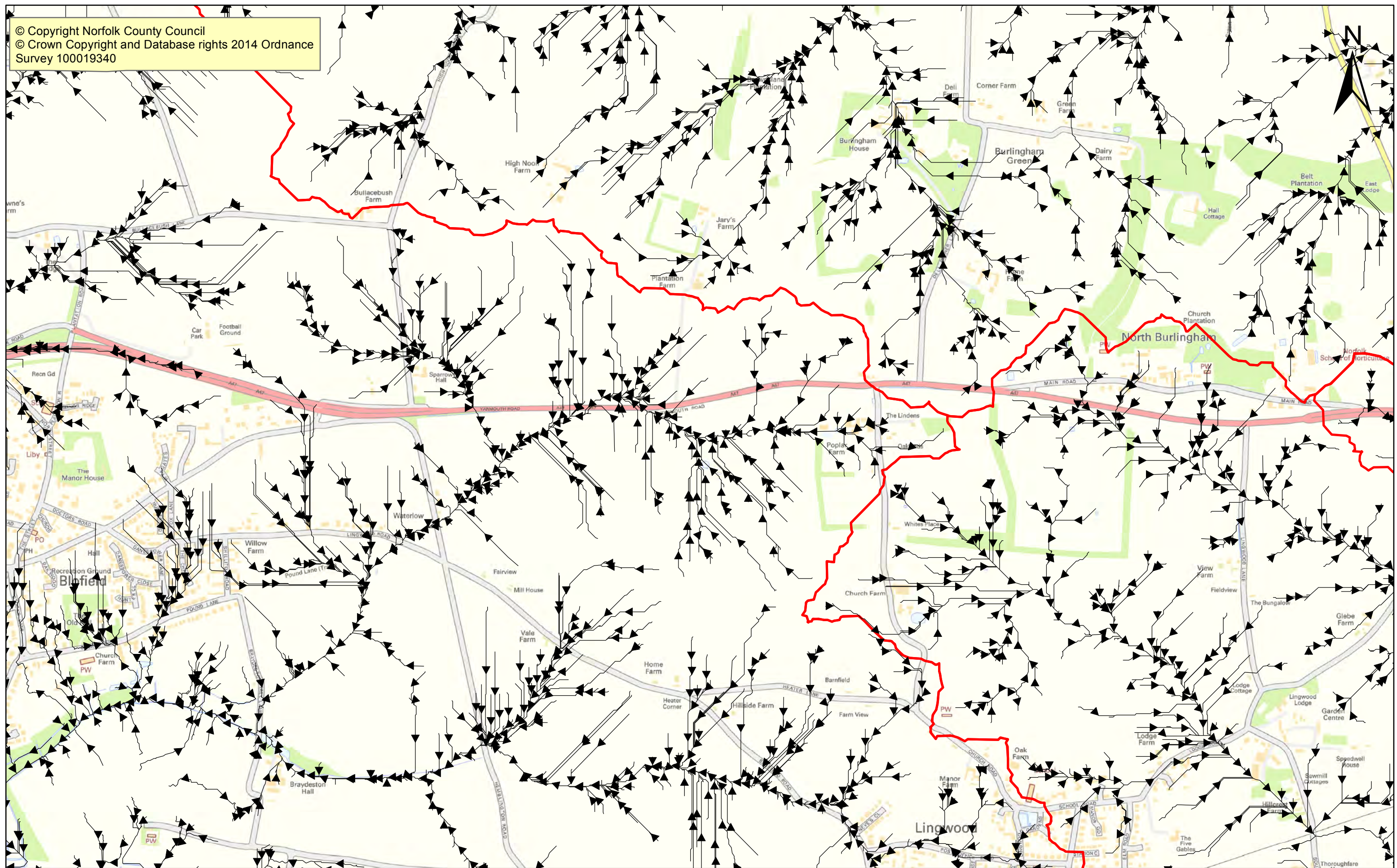
7.2. Norfolk County Council's Norfolk Core Strategy and Minerals and Waste Development Management Policies DPD is available on our website here: <https://www.norfolk.gov.uk/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/minerals-and-waste-planning-policies/adopted-policy-documents>

A map of the Mineral Safeguarding Areas is available on our website here: <https://norfolk.jdi-consult.net/localplan/mapping2.php?mapid=201>

Norfolk County Council's safeguarding guidance is available on our website here: <https://www.norfolk.gov.uk/-/media/norfolk/downloads/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/minerals-and-waste-planning/aggregates-sand-gravel-and-carstone.pdf?la=en>

7.3. Should you have any queries with the above comments please call or email Caroline Jeffery on 01603 222193 or email caroline.jeffery@norfolk.gov.uk.

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Survey 100019340



0 0.1 0.2 0.4 0.6 0.8
Kilometers

Site Name: A47 North Burlingham
Reference: FWS/18/8/6074
Date Created: 27 Feb 2018

Legend

- Flow Paths
- Catchments



 **Norfolk** County Council

1:10,000



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Richard Hunt
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The Planning Inspectorate
3D Eagle Wing
Temple Quay House
2 The Square
Bristol, BS1 6PN

Your Ref : TR010040-000004

Our Ref : 43136

6th March 2018

Dear Mr Hunt,

Re: Scoping Consultation for A47 Blofield to North Burlingham, Norfolk

Thank you for including Public Health England (PHE) in the scoping consultation phase of the above application. Our response focuses on health protection issues relating to chemicals and radiation. Advice offered by PHE is impartial and independent.

We understand that the promoter will wish to avoid unnecessary duplication and that many issues including air quality, emissions to water, waste, contaminated land etc. will be covered elsewhere in the Environmental Statement (ES). We believe the summation of relevant issues into a specific section of the report provides a focus which ensures that public health is given adequate consideration. The section should summarise key information, risk assessments, proposed mitigation measures, conclusions and residual impacts, relating to human health. Compliance with the requirements of National Policy Statements and relevant guidance and standards should also be highlighted.

In terms of the level of detail to be included in an ES, we recognise that the differing nature of projects is such that their impacts will vary. Any assessments undertaken to inform the ES should be proportionate to the potential impacts of the proposal, therefore we accept that, in some circumstances particular assessments may not be relevant to an application, or that an assessment may be adequately completed using a qualitative rather than quantitative methodology. In cases where this decision is made the promoters should fully explain and justify their rationale in the submitted documentation.

The attached appendix outlines generic areas that should be addressed by all promoters when preparing ES for inclusion with an NSIP submission. We are happy to assist and discuss proposals further in the light of this advice.

Yours sincerely

Environmental Public Health Scientist
nsipconsultations@phe.gov.uk

Please mark any correspondence for the attention of National Infrastructure Planning Administration.

Appendix: PHE recommendations regarding the scoping document

General approach

The EIA should give consideration to best practice guidance such as the Government's Good Practice Guide for EIA¹. It is important that the EIA identifies and assesses the potential public health impacts of the activities at, and emissions from, the installation. Assessment should consider the development, operational, and decommissioning phases.

It is not PHE's role to undertake these assessments on behalf of promoters as this would conflict with PHE's role as an impartial and independent body.

Consideration of alternatives (including alternative sites, choice of process, and the phasing of construction) is widely regarded as good practice. Ideally, EIA should start at the stage of site and process selection, so that the environmental merits of practicable alternatives can be properly considered. Where this is undertaken, the main alternatives considered should be outlined in the ES².

The following text covers a range of issues that PHE would expect to be addressed by the promoter. However this list is not exhaustive and the onus is on the promoter to ensure that the relevant public health issues are identified and addressed. PHE's advice and recommendations carry no statutory weight and constitute non-binding guidance.

Receptors

The ES should clearly identify the development's location and the location and distance from the development of off-site human receptors that may be affected by emissions from, or activities at, the development. Off-site human receptors may include people living in residential premises; people working in commercial, and industrial premises and people using transport infrastructure (such as roads and railways), recreational areas, and publicly-accessible land. Consideration should also be given to environmental receptors such as the surrounding land, watercourses, surface and groundwater, and drinking water supplies such as wells, boreholes and water abstraction points.

Impacts arising from construction and decommissioning

Any assessment of impacts arising from emissions due to construction and decommissioning should consider potential impacts on all receptors and describe monitoring and mitigation during these phases. Construction and decommissioning will be associated with vehicle movements and cumulative impacts should be accounted for.

¹ Environmental Impact Assessment: A guide to good practice and procedures - A consultation paper; 2006; Department for Communities and Local Government. Available from: <http://webarchive.nationalarchives.gov.uk/20100410180038/http://communities.gov.uk/planningandbuilding/planning/sustainability/environmental/environmentalimpactassessment/>

² DCLG guidance, 1999 <http://www.communities.gov.uk/documents/planningandbuilding/pdf/155958.pdf>

We would expect the promoter to follow best practice guidance during all phases from construction to decommissioning to ensure appropriate measures are in place to mitigate any potential impact on health from emissions (point source, fugitive and traffic-related). An effective Construction Environmental Management Plan (CEMP) (and Decommissioning Environmental Management Plan (DEMP)) will help provide reassurance that activities are well managed. The promoter should ensure that there are robust mechanisms in place to respond to any complaints of traffic-related pollution, during construction, operation, and decommissioning of the facility.

Emissions to air and water

Significant impacts are unlikely to arise from installations which employ Best Available Techniques (BAT) and which meet regulatory requirements concerning emission limits and design parameters. However, PHE has a number of comments regarding emissions in order that the EIA provides a comprehensive assessment of potential impacts.

When considering a baseline (of existing environmental quality) and in the assessment and future monitoring of impacts these:

- should include appropriate screening assessments and detailed dispersion modelling where this is screened as necessary
- should encompass all pollutants which may be emitted by the installation in combination with all pollutants arising from associated development and transport, ideally these should be considered in a single holistic assessment
- should consider the construction, operational, and decommissioning phases
- should consider the typical operational emissions and emissions from start-up, shut-down, abnormal operation and accidents when assessing potential impacts and include an assessment of worst-case impacts
- should fully account for fugitive emissions
- should include appropriate estimates of background levels
- should identify cumulative and incremental impacts (i.e. assess cumulative impacts from multiple sources), including those arising from associated development, other existing and proposed development in the local area, and new vehicle movements associated with the proposed development; associated transport emissions should include consideration of non-road impacts (i.e. rail, sea, and air)
- should include consideration of local authority, Environment Agency, Defra national network, and any other local site-specific sources of monitoring data
- should compare predicted environmental concentrations to the applicable standard or guideline value for the affected medium (such as UK Air Quality Standards and Objectives and Environmental Assessment Levels)
 - If no standard or guideline value exists, the predicted exposure to humans should be estimated and compared to an appropriate health-based value (a Tolerable Daily Intake or equivalent). Further guidance is provided in Annex 1
 - This should consider all applicable routes of exposure e.g. include consideration of aspects such as the deposition of chemicals emitted to air and their uptake via ingestion
- should identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities) in the area(s) which

may be affected by emissions, this should include consideration of any new receptors arising from future development

Whilst screening of impacts using qualitative methodologies is common practice (e.g. for impacts arising from fugitive emissions such as dust), where it is possible to undertake a quantitative assessment of impacts then this should be undertaken.

PHE's view is that the EIA should appraise and describe the measures that will be used to control both point source and fugitive emissions and demonstrate that standards, guideline values or health-based values will not be exceeded due to emissions from the installation, as described above. This should include consideration of any emitted pollutants for which there are no set emission limits. When assessing the potential impact of a proposed installation on environmental quality, predicted environmental concentrations should be compared to the permitted concentrations in the affected media; this should include both standards for short and long-term exposure.

Additional points specific to emissions to air

When considering a baseline (of existing air quality) and in the assessment and future monitoring of impacts these:

- should include consideration of impacts on existing areas of poor air quality e.g. existing or proposed local authority Air Quality Management Areas (AQMAs)
- should include modelling using appropriate meteorological data (i.e. come from the nearest suitable meteorological station and include a range of years and worst case conditions)
- should include modelling taking into account local topography

Additional points specific to emissions to water

When considering a baseline (of existing water quality) and in the assessment and future monitoring of impacts these:

- should include assessment of potential impacts on human health and not focus solely on ecological impacts
- should identify and consider all routes by which emissions may lead to population exposure (e.g. surface watercourses; recreational waters; sewers; geological routes etc.)
- should assess the potential off-site effects of emissions to groundwater (e.g. on aquifers used for drinking water) and surface water (used for drinking water abstraction) in terms of the potential for population exposure
- should include consideration of potential impacts on recreational users (e.g. from fishing, canoeing etc) alongside assessment of potential exposure via drinking water

Land quality

We would expect the promoter to provide details of any hazardous contamination present on site (including ground gas) as part of the site condition report.

Emissions to and from the ground should be considered in terms of the previous history of the site and the potential of the site, once operational, to give rise to issues. Public health impacts associated with ground contamination and/or the

migration of material off-site should be assessed³ and the potential impact on nearby receptors and control and mitigation measures should be outlined.

Relevant areas outlined in the Government's Good Practice Guide for EIA include:

- effects associated with ground contamination that may already exist
- effects associated with the potential for polluting substances that are used (during construction / operation) to cause new ground contamination issues on a site, for example introducing / changing the source of contamination
- impacts associated with re-use of soils and waste soils, for example, re-use of site-sourced materials on-site or offsite, disposal of site-sourced materials offsite, importation of materials to the site, etc.

Waste

The EIA should demonstrate compliance with the waste hierarchy (e.g. with respect to re-use, recycling or recovery and disposal).

For wastes arising from the installation the EIA should consider:

- the implications and wider environmental and public health impacts of different waste disposal options
- disposal route(s) and transport method(s) and how potential impacts on public health will be mitigated

Other aspects

Within the EIA PHE would expect to see information about how the promoter would respond to accidents with potential off-site emissions e.g. flooding or fires, spills, leaks or releases off-site. Assessment of accidents should: identify all potential hazards in relation to construction, operation and decommissioning; include an assessment of the risks posed; and identify risk management measures and contingency actions that will be employed in the event of an accident in order to mitigate off-site effects.

The EIA should include consideration of the COMAH Regulations (Control of Major Accident Hazards) and the Major Accident Off-Site Emergency Plan (Management of Waste from Extractive Industries) (England and Wales) Regulations 2009: both in terms of their applicability to the installation itself, and the installation's potential to impact on, or be impacted by, any nearby installations themselves subject to the these Regulations.

There is evidence that, in some cases, perception of risk may have a greater impact on health than the hazard itself. A 2009 report⁴, jointly published by Liverpool John Moores University and the HPA, examined health risk perception and environmental problems using a number of case studies. As a point to consider, the report suggested: "Estimation of community anxiety and stress should be included as part of every risk or impact assessment of proposed plans that involve a potential environmental hazard. This is true even when the physical health risks may be negligible." PHE supports the inclusion of this information within EIAs as good practice.

³ Following the approach outlined in the section above dealing with emissions to air and water i.e. comparing predicted environmental concentrations to the applicable standard or guideline value for the affected medium (such as Soil Guideline Values)

⁴ Available from: <http://www.cph.org.uk/wp-content/uploads/2012/08/health-risk-perception-and-environmental-problems--summary-report.pdf>

Electromagnetic fields (EMF)

This statement is intended to support planning proposals involving electrical installations such as substations and connecting underground cables or overhead lines. PHE advice on the health effects of power frequency electric and magnetic fields is available in the following link:

<https://www.gov.uk/government/collections/electromagnetic-fields#low-frequency-electric-and-magnetic-fields>

There is a potential health impact associated with the electric and magnetic fields around substations, and power lines and cables. The field strength tends to reduce with distance from such equipment.

The following information provides a framework for considering the health impact associated with the electric and magnetic fields produced by the proposed development, including the direct and indirect effects of the electric and magnetic fields as indicated above.

Policy Measures for the Electricity Industry

The Department of Energy and Climate Change has published a voluntary code of practice which sets out key principles for complying with the ICNIRP guidelines:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37447/1256-code-practice-emf-public-exp-guidelines.pdf

Companion codes of practice dealing with optimum phasing of high voltage power lines and aspects of the guidelines that relate to indirect effects are also available:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48309/1255-code-practice-optimum-phasing-power-lines.pdf

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/224766/powerlines_vcop_microshocks.pdf

Exposure Guidelines

PHE recommends the adoption in the UK of the EMF exposure guidelines published by the International Commission on Non-ionizing Radiation Protection (ICNIRP). Formal advice to this effect was published by one of PHE's predecessor organisations (NRPB) in 2004 based on an accompanying comprehensive review of the scientific evidence:-

<http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Publications/Radiation/NPRBArchive/DocumentsOfTheNRPB/Absd1502/>

Updates to the ICNIRP guidelines for static fields have been issued in 2009 and for low frequency fields in 2010. However, Government policy is that the ICNIRP guidelines are implemented in line with the terms of the 1999 EU Council Recommendation on limiting exposure of the general public (1999/519/EC):

http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Publichealth/Healthprotection/DH_4089500

Static magnetic fields

For static magnetic fields, the ICNIRP guidelines published in 2009 recommend that acute exposure of the general public should not exceed 400 mT (millitesla), for any part of the body, although the previously recommended value of 40 mT is the value used in the Council Recommendation. However, because of potential indirect adverse effects, ICNIRP recognises that practical policies need to be implemented to prevent inadvertent harmful exposure of people with implanted electronic medical devices and implants containing ferromagnetic materials, and injuries due to flying ferromagnetic objects, and these considerations can lead to much lower restrictions, such as 0.5 mT.

Power frequency electric and magnetic fields

At 50 Hz, the known direct effects include those of induced currents in the body on the central nervous system (CNS) and indirect effects include the risk of painful spark discharge on contact with metal objects exposed to the field. The ICNIRP guidelines published in 1998 give reference levels for public exposure to 50 Hz electric and magnetic fields, and these are respectively 5 kV m⁻¹ (kilovolts per metre) and 100 µT (microtesla). The reference level for magnetic fields changes to 200 µT in the revised (ICNIRP 2010) guidelines because of new basic restrictions based on induced electric fields inside the body, rather than induced current density. If people are not exposed to field strengths above these levels, direct effects on the CNS should be avoided and indirect effects such as the risk of painful spark discharge will be small. The reference levels are not in themselves limits but provide guidance for assessing compliance with the basic restrictions and reducing the risk of indirect effects.

Long term effects

There is concern about the possible effects of long-term exposure to electromagnetic fields, including possible carcinogenic effects at levels much lower than those given in the ICNIRP guidelines. In the NRPB advice issued in 2004, it was concluded that the studies that suggest health effects, including those concerning childhood leukaemia, could not be used to derive quantitative guidance on restricting exposure. However, the results of these studies represented uncertainty in the underlying evidence base, and taken together with people's concerns, provided a basis for providing an additional recommendation for Government to consider the need for further precautionary measures, particularly with respect to the exposure of children to power frequency magnetic fields.

The Stakeholder Advisory Group on ELF EMFs (SAGE)

SAGE was set up to explore the implications for a precautionary approach to extremely low frequency electric and magnetic fields (ELF EMFs), and to make practical recommendations to Government:

<http://www.emfs.info/policy/sage/>

SAGE issued its First Interim Assessment in 2007, making several recommendations concerning high voltage power lines. Government supported the implantation of low cost options such as optimal phasing to reduce exposure; however it did not support the option of creating corridors around power lines on health grounds, which was considered to be a disproportionate measure given the evidence base on the potential long term health risks arising from exposure. The Government response to SAGE's First Interim Assessment is available here:

http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107124

The Government also supported calls for providing more information on power frequency electric and magnetic fields, which is available on the PHE web pages (see first link above).

Annex 1

Human health risk assessment (chemical pollutants)

The points below are cross-cutting and should be considered when undertaking a human health risk assessment:

- The promoter should consider including Chemical Abstract Service (CAS) numbers alongside chemical names, where referenced in the ES
- Where available, the most recent United Kingdom standards for the appropriate media (e.g. air, water, and/or soil) and health-based guideline values should be used when quantifying the risk to human health from chemical pollutants. Where UK standards or guideline values are not available, those recommended by the European Union or World Health Organisation can be used
- When assessing the human health risk of a chemical emitted from a facility or operation, the background exposure to the chemical from other sources should be taken into account
- When quantitatively assessing the health risk of genotoxic and carcinogenic chemical pollutants PHE does not favour the use of mathematical models to extrapolate from high dose levels used in animal carcinogenicity studies to well below the observed region of a dose-response relationship. When only animal data are available, we recommend that the 'Margin of Exposure' (MOE) approach⁵ is used

⁵ Benford D et al. 2010. Application of the margin of exposure approach to substances in food that are genotoxic and carcinogenic. Food Chem Toxicol 48 Suppl 1: S2-24



A47 Blofield to North Burlingham

Royal Mail Group Limited comments on information to be provided in applicant's Environmental Statement

Introduction

Reference the letter from PINS to Royal Mail dated 7 February 2018 requesting Royal Mail's comments on the information that should be provided in Highways England's Environmental Statement for the proposed A47 Blofield to North Burlingham improvements.

Royal Mail's consultants BNP Paribas Real Estate have reviewed the applicant's Scoping Report as published on 7 February 2018.

Royal Mail– relevant information

Royal Mail is responsible for providing efficient mail sorting and delivery nationally. As the Universal Service Provider under the Postal Services Act 2011, Royal Mail has a statutory duty to deliver mail to every residential and business address in the country as well as collecting mail from all Post Offices and post boxes six days a week.

Royal Mail's postal sorting and delivery operations rely heavily on road communications. Royal Mail's ability to provide efficient mail collection, sorting and delivery to the public is sensitive to changes in the capacity of the highway network.

Royal Mail is a major road user nationally. Disruption to the highway network and traffic delays can have direct consequences on Royal Mail's operations, its ability to meet the Universal Service Obligation and comply with the regulatory regime for postal services thereby presenting a significant risk to Royal Mail's business.

Royal Mail therefore wishes to ensure the protection of its future ability to provide an efficient mail sorting and delivery service to the public in accordance with its statutory obligations which may potentially be adversely affected by the construction of this proposed road scheme.

Royal Mail has five operational facilities within 10 miles of the proposed scheme:

1. Blofield Vehicle Park, The Street, Blofield Nr Norwich NR13 4AA
2. Norwich Mail Centre, 13/17 Thorpe Road, Norwich NR1 1AA
3. Acle Vehicle Park, Neal Gurney, Norwich NR13 3AA
4. Norwich Delivery Office, 10-20 Roundtree Way, Norwich NR7 8ZZ
5. Norwich Parcelforce Depot, 112-118 Barker Street, Norwich NR2 4HJ

The A47 east of Norwich is an important distribution route for Royal Mail services. In exercising its statutory duties, Royal Mail vehicles from the above and other operational facilities use on a daily basis all of the local roads that may potentially be affected by additional traffic arising from the construction of the proposed scheme.

It is envisaged that the proposed scheme will, once constructed, have benefits for Royal Mail operational traffic movements. However, Royal Mail is concerned about the potential for disruption to its operations during the construction phase. In particular, Royal Mail requires more information and certainty from Highways England about traffic management measures that will be put in place to mitigate construction impacts on traffic flows on the surrounding local highway network.



Royal Mail's comments on information that should be provided in Highways England's Environmental Statement

In view of the above, Royal Mail has the following comments / requests:

1. The ES should include information on the needs of major road users (such as Royal Mail) and acknowledge the requirement to ensure that major road users are not disrupted through full advance consultation by the applicant at the appropriate time in the DCO and development process.
2. The ES and DCO application should include detailed information on the construction traffic mitigation measures that are proposed to be implemented by Highways England / its contractor, including a draft Construction Traffic Management Plan (CTMP).
3. Royal Mail is fully pre-consulted by Highways England / its contractor on any proposed road closures / diversions/ alternative access arrangements, hours of working and the content of the CTMP. The ES should acknowledge the need for this consultation with Royal Mail and other relevant major road users.

Royal Mail is able to supply Highways England with information on its road usage / trips if required.

Should PINS or Highways England have any queries in relation to the above then in the first instance please contact Joe Walsh (***joseph.walsh@royalmail.com***) of Royal Mail's Legal Services Team or Daniel Parry-Jones (***daniel.parry-jones@bnpparibas.com***) of BNP Paribas Real Estate.

From: [Kim Woodhouse](#)
To: [Newman, Stephanie](#)
Subject: : A47 Blofield to North Burlingham - EIA Scoping Notification and Consultation
Date: 05 March 2018 11:35:42
Attachments: [image001.png](#)
[image003.png](#)

Dear Stephanie

Thank you for your email of 26th February explaining the statutory obligation to consult. Please be advised that South Norfolk Council do not have any comments to make.

Kind regards

Kim Woodhouse

Support and Innovation Manager

t 01508 533846 e kwoodhouse@s-norfolk.gov.uk www.south-norfolk.gov.uk



South Norfolk Council, working with you, working for you.



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From: [Peter Grimm](#)
To: [A47 Blofield to North Burlingham](#); [Newman, Stephanie](#)
Cc: [Peter Aldous](#); [Dawn Ellis](#); [Jane Storey \(SCC\)](#); [Colin Noble](#); [Leader of the Council's PA](#); [Sandra Gage](#); [David Wood \(Councillor\)](#); [Caroline Page](#); [AHarston@abports.co.uk](#); [Nick Burfield](#); [rwp@richard-perkins.co.uk](#); [Paul Simon](#); [Stephen.baker@eastsuffolk.gov.uk](#); [Carolyn.Barnes@eastsuffolk.gov.uk](#); [Karen Chapman](#); [Lisa.Roberts@newanglia.co.uk](#); [Ellen.Goodwin@newanglia.co.uk](#); [Tim Passmore](#); [sandra.graffham@suffolk.pnn.police.uk](#); [barnardk@norfolk.pnn.police.uk](#); [Steve Griss](#); [david.cumming@norfolk.gov.uk](#); [Lee.Sambrook@dft.gsi.gov.uk](#); [susanne.isaacs@dft.gsi.gov.uk](#); [Amin.Ahmadnia@dft.gsi.gov.uk](#); [Andy.Jobling@highwaysengland.co.uk](#); [Nigel.Allsopp@highwaysengland.co.uk](#); [david.abbott@highwaysengland.co.uk](#); [Dave Watson](#); [Graeme Mateer](#); [Emma Cook - \(GHI\)](#); [Adam Barnes](#); [Ryan De"Ath](#); [Callum Maclean](#); [Peter Grimm](#)
Subject: A47 Blofield to North Burlingham - EIA Scoping Notification and Consultation
Date: 02 March 2018 08:48:01
Attachments: [A47 Blofield to North Burlingham - Scoping Consultation Letter to Statutory Consultees.pdf](#)
[2017-04-18 A47 Blofield to North Burlingham Consultation Response.pdf](#)
[Exchange of emails.pdf](#)
[HEBLOFLD-MMSJV-Draft for Parish Meetings 2018-02-02 \(003\).pdf](#)

Dear Sir/Madam

I refer to the following email/attached scoping letter relating to consultation on the A47 Blofield to North Burlingham EIA Scoping Report dated February 2018.

Please find attached the County Council response to Highways England's public consultation on the dualling of the A47 between Blofield and North Burlingham, based on Highways England's report entitled "*Improving the A47 Blofield to North Burlingham dualling Public consultation – March 2017*".

The County Council is pleased to note that many of the points highlighted in our public consultation response have been taken into account in the scheme design, including:

- The scheme described in the EIA Scoping Report is closely aligned to Option 4, which is one of the County Council's preferred options;
- Provision of an alternative parallel local access road between Blofield and North Burlingham, utilising the existing A47 carriageway;
- A47/Yarmouth Road Junction: Removing the opening in the central reserve and connecting Yarmouth Road to the alternative parallel local access road;
- A47/B1140 junction: providing a compact grade separated junction layout and removing the existing openings in the central reserve. This also connects to the alternative parallel local access road and provides safe access to properties in North Burlingham and elsewhere in the immediate area.

In our response to the March 2017 public consultation the County Council agreed that this section of the A47 has a poor safety record. Following recent discussions with Highways England, it is disappointing to note that the project does not address the issue of the openings in the central reserve at:

- The Windle (within the DCO boundary); and
- Acle Hall Farm (outside the DCO boundary), which is used by slow moving agricultural machinery.

The County Council believes that:

- the potential accident risk is significant; and
- the opportunity to stop up the openings in the central reservation at these locations should

be pursued.

Proposed Scheme Description

The County Council supports the following features of the proposed scheme as described in paragraph 2.4.2:

- 70mph high quality dual carriageway to current standards;
- Connection to existing A47 dual carriageway at both end points of the scheme;
- A new alignment that will closely follow the existing alignment of the A47 as geometric and other constraints permit;
- Where the existing A47 will be unaffected by the dualling, it will become part of the local road network;
- Yarmouth Road/Hemblington Road junction - will be realigned with a new link road connecting to the old A47 alignment over a new bridge;
- Eastern Junction – new compact grade separated junction on the new proposed A47 with connection to South Walsham Road and Acle Road;
- Acle Road will be slightly realigned at the northern end to connect onto the new compact grade separated junction; and
- An additional new access link will be provided connecting Main Street in North Burlingham to South Walsham Road.

Western junction

The A47 Blofield to North Burlingham EIA Scoping Report states in paragraph 2.4.2 that the Proposed Scheme will comprise of the following *“Western junction for accessing the A47 from Yarmouth Road - will permit westbound access only onto the A47”*.

The County Council has sought clarification of the design from Highways England and the exchange of emails is attached for information. A plan entitled *“HEBLOFLD-MMSJV-Draft for Parish Meetings 2018-02-02 (003).pdf”* was provided by Highways England (attached) with a supporting comment that it *“is not the final design”*.

Highways England also stated in their response that *“the Western junction will only be for westbound traffic but it will allow traffic to exit the new A47 on to Yarmouth road as well as allow access from Yarmouth road on to the new A47”*.

On this basis the County Council believes that the description of the Western junction as set out in paragraph 2.4.2 can be misinterpreted and is potentially misleading. Nevertheless, the County Council does not object to the layout of the Western junction as shown on the plan provided by Highways England or as described in their email of the 22 February.

Peter Grimm

Strategic Traffic Manager

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Transport Strategy
Growth, Highways and Infrastructure directorate
Suffolk County Council
Block 1 Floor 5

Endeavour House
8 Russell Road
Ipswich
Suffolk
IP1 2BX

From: Newman, Stephanie [<mailto:Stephanie.Newman@pins.gsi.gov.uk>]

Sent: 07 February 2018 11:36

Subject: A47 Blofield to North Burlingham - EIA Scoping Notification and Consultation

Dear Sir/Madam

Please see attached correspondence on the proposed **A47 Blofield to North Burlingham**.

Please note the deadline for consultation responses is **7 March 2018**, and is a statutory requirement that cannot be extended.

Kind regards,

Stephanie Newman

EIA and Land Rights Advisor
Major Applications & Plans

The Planning Inspectorate, Temple Quay House, Temple Quay, Bristol, BS1 6PN

Direct line: 0303 444 5633

Helpline: 0303 444 5000

Email: Stephanie.newman@pins.gsi.gov.uk

Web: infrastructure.planninginspectorate.gov.uk (National Infrastructure Planning)

Web: www.gov.uk/government/organisations/planning-inspectorate (The Planning Inspectorate)

Twitter: [@PINSgov](https://twitter.com/PINSgov)

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Suffolk County Council

A47 Blofield to North Burlingham dualling Response to Consultation - April 2017

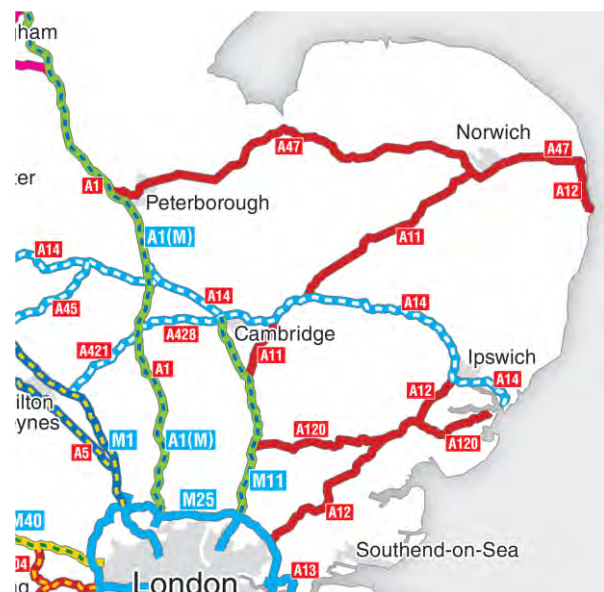
1 Introduction

- 1.1 This report summarises Suffolk County Council's response to Highways England's public consultation on the dualling of the A47 between Blofield and North Burlingham and is based on Highways England's report entitled *"Improving the A47 Blofield to North Burlingham dualling Public consultation – March 2017"*.
- 1.2 Highways England state that their proposals to improve the A47 between Blofield and North Burlingham *"will create a new dual carriageway that will relieve congestion, provide extra road space, improve safety and help provide a free-flowing network"*.
- 1.3 Highways England also indicate that:
- they are working closely with local authorities to ensure that their proposals align with local and regional plans and aspirations for growth;
 - they are at an early stage of developing the project;
 - there will be another opportunity to comment before a final decision is made;
 - they will analyse the consultation response and undertake additional technical work (Summer 2017); and
 - If there is a compelling case for the scheme and a suitable option is selected, a preferred route will be announced (Autumn 2017)
- 1.4 The County Council's main interest is to represent road users within the Suffolk community and in this respect this report comments on the consultation process, matters of principle and detailed issues.

2 Overview

- 2.1 The County Council recognises that this section of the A47:

- is part of the strategic trunk road network;
- connects major centres of population in the East of England, including Great Yarmouth and Lowestoft and the ports at Great Yarmouth and Lowestoft to the wider trunk road network and hence destinations across the UK; and
- is important for commuter, business and commercial traffic, and for both short and long distance trips.



2.2 Suffolk County Council agrees that:

- the existing single carriageway between Blofield and North Burlingham acts as a bottleneck, resulting in congestion and leading to longer and unreliable journey times;
- delays on this stretch of the A47 will worsen if nothing is done to improve capacity and connectivity; and
- this section of the A47 has a poor safety record, linked in part to the volume of traffic, including HGVs, turning at the B1140 junction.

2.3 Suffolk County Council believes that the case for improving the A47 between Blofield and North Burlingham and the junctions with the B1140 and Yarmouth Road is overwhelming and that the project is necessary to address the problems identified (page 3), i.e.:

- difficulty of accessing and crossing the A47;
- standard of the road and junctions;
- traffic levels outgrowing the capacity of the road, causing tailbacks and delays;
- limited opportunities for overtaking slower moving vehicles; and
- development in the local area.

3 Consultation

3.1 Suffolk County Council welcomes the opportunity to comment on the options put forward in the consultation document and believes that it is important to consider the impact of future growth of traffic, housing and the economy in the region as a whole.

3.2 It is important that the views of the Suffolk community, including the County and District Councils, the Suffolk Chamber of Commerce and the Port of Lowestoft, are considered as part of the current consultation and as the project is developed and taken forward through the appropriate procedures.

3.3 Suffolk County Council recognises the importance of the research undertaken by Transport Focus to ensure that road users' views are at the heart of the planning process. Although initial work has concentrated on the proposed A120 Braintree to A12 project, similar research should be carried out in respect of the A47 Blofield to North Burlingham dualling including:

- a detailed understanding of road users' views about the A47 between Blofield and North Burlingham, ensuring that any problems and issues are fully explored;
- exploring road users' views on how these problems might be addressed, providing clear priorities for improvement;
- exploring reactions to potential improvements that could be made to the A47;
- gaining an in-depth understanding of the views of all different types of A47 users and any differences between audiences; and
- providing a review of possible solutions.

4 Principles

Objectives

4.1 Suffolk County Council agrees with the objectives of the scheme as listed on page 3 of the consultation document, which are repeated below for convenience:

- **Supporting economic growth**

Contributing to sustainable economic growth by supporting employment and residential development opportunities. The scheme aims to reduce congestion-related delay, improve journey time reliability and increase the overall capacity of the A47.

- **A safe and serviceable network**

Improving road safety for all road users by designing to modern highway standards appropriate for a major A road.

- **A more free-flowing network**

Increasing the resilience of the road in coping with incidents such as collisions, breakdowns, maintenance and extreme weather. The improved route between Blofield and North Burlingham will be more reliable, reducing journey times and providing capacity for future traffic growth.

- **Improved environment**

Protecting the environment by minimising adverse impacts and, where possible, improving the environmental effects of the scheme on those living along the route.

- **An accessible and integrated network**

Ensuring the proposals take into account local communities and access to the road network, providing a safer route between communities for cyclists, pedestrians, equestrians and other non-motorised groups.

- **Value for money**

Ensuring that the scheme is affordable and delivers good value for money.

Traffic Modelling

4.2 Suffolk County Council notes that no traffic information has been provided in the consultation document to support the case for the improvement of the A47 between Blofield and North Burlingham, or turning movements at the A47 junctions with Yarmouth Road and the B1140.

4.3 This compares to the to the recent consultation on the A12 Chelmsford to A120 widening which:

- provided details on current and future congestion; and
- indicated that the road “*carries high volumes of traffic, with up to 90,000 vehicles every day*” and that “*Heavy goods vehicles account for between 8% and 12% of the traffic on this section*”.

- 4.4 However, Suffolk County Council is aware that the existing A47 between Blofield and North Burlingham currently carries just over 30,000 vehicles (average weekday traffic) and without the scheme in place this section of A47 will continue to be congested and further growth will exacerbate this situation.
- 4.5 Suffolk County Council accepts that the new scheme would reasonably be expected to significantly reduce journey times on the A47.

Economic Case

- 4.6 Suffolk County Council notes that although a key objective is to ensure *“that the scheme is affordable and delivers good value for money”*, no information has been provided in the consultation document to demonstrate that the option put forward for consultation represents value for money, including the benefit/cost ratio (BCR), or to quantify the wider economic benefits.
- 4.7 This is in stark contrast to the recent consultation on the A12 Chelmsford to A120 widening which states:
- *“the A12 is an important economic link in Essex and across the East of England.*
 - *improvements need to support economic growth, not just for Essex but across the region.*
 - *at this stage, all of the above options show good value for money and a positive benefit cost ratio.”*
- 4.8 Suffolk County Council believes that the project will make a significant contribution to the local and wider regional economy and that this will benefit Suffolk businesses in the north and east of the county.

Local Access

- 4.9 The consultation document does not indicate how access to existing private properties and fields, including properties in North Burlingham, will be maintained as part of the trunk road improvement.
- 4.10 Suffolk County Council believes that an alternative parallel local access road may be required and that this would be best provided by utilising the existing A47 carriageway with an off line trunk road solution.
- 4.11 A parallel local access road would also provide a safe alternative route for cyclists.

A47/Yarmouth Road Junction

- 4.12 All route options show *“proposed junction”* at Yarmouth Road without being clear what junction options have been assessed or are planned.
- 4.13 Suffolk County Council suggests that:
- retaining the existing arrangement with an opening in the central reserve would be inconsistent with the objective to provide *“a safe and serviceable network”* and *“improving road safety for all road users by designing to modern highway standards appropriate for a major A road”*; and
 - it would seem sensible to remove this junction completely and connect Yarmouth Road to an alternative parallel local access road between Blofield and North Burlingham.

A47/B1140 junction

4.14 All options show “*proposed junction*” at the B1140 junction without being clear what junction options have been assessed or are planned.

4.15 Suffolk County Council is aware that:

- there are a significant number of turning movements at this junction;
- this junction is used by sugar beet vehicles travelling to and from the Cantley Sugar Beet factory and also by traffic travelling to and from the Norfolk Broads, including South Walsham, Ranworth and Wroxham; and
- this junction has a poor accident record.

4.16 Suffolk County Council suggests that:

- retaining the existing junction layout with openings in the central reserve, with or without the A47 improvement, is unacceptable and would be inconsistent with the objective to provide “*a safe and serviceable network*” and “*improving road safety for all road users by designing to modern highway standards appropriate for a major A road*”;
- it would seem sensible to redesign this junction completely to reduce the potential conflicts involving fast moving traffic on the A47 trunk road and slow moving vehicles, particularly HGVs, negotiating this at grade junction to and from the B1140; and
- the appropriate solution would be to grade separate the junction complex and remove the openings in the central reserve. This could also be designed to connect to an alternative parallel local access road between Blofield and North Burlingham, and hence provide safe access to properties in North Burlingham and elsewhere in the immediate area.

5 Options for consultation

Route Options

5.1 Suffolk County Council notes that Highways England are consulting on four route options to dual the A47 between Blofield and North Burlingham and that where it is proposed to build a new road, the existing carriageway will be retained for access to fields, farms, properties and for non-motorists. The four options are summarised below:

- **Option 1:** Dualling the existing A47;
- **Option 2:** Building a new dual carriageway to the north and to the south of the existing A47;
- **Option 3:** Building a new dual carriageway to the south of the existing A47;
- **Option 4:** Building a new dual carriageway to the south of the existing A47.

5.2 All route options start at the existing junction with Yarmouth Road and end immediately to the west of the existing A47/B1140 junction.

5.3 Suffolk County Council believes that:

- the improved section of A47 should be designed to modern highway standards appropriate for a major A road and hence meet the stated objective to deliver “a *safe and serviceable network*”; and
- there should be a limited number of major junctions and no local accesses directly onto the trunk road.

Option 1

5.4 This option “*would attempt to use as much of the existing carriageway as possible*” and “*will include new junctions*”.

5.5 Suffolk County Council's comments are:

- in effect most of the existing A47, except the section through North Burlingham, would be assimilated into the proposed dualling scheme;
- there is no indication how access to local properties, including those in North Burlingham, would be accommodated;
- it is unclear how Main Road, North Burlingham would be connected to the improved A47

Option 2

5.6 This option “*passes predominantly through open farm land*” and “*the remaining existing A47 would, where unaffected by the new dual carriageway, become part of the local road network*”.

5.7 The proposed new dual carriageway runs to the north of the A47 as the route heads east away from the village of Blofield and to the south of the existing A47 as the route passes the village of North Burlingham, crossing the existing A47 between the villages.

5.8 Suffolk County Council's comments are:

- It is unclear how the superseded sections of the A47 would become part of the local road network; and
- there is no indication how access to local properties, including those in North Burlingham, would be accommodated;
- it is unclear how Main Road, North Burlingham would be connected to the improved A47

Option 3

5.9 This option follows an alignment running to the south of the A47. The route passes predominantly through open farm land.

5.10 It is noted that “*the remaining existing A47 would, where unaffected by the new dual carriageway, become part of the local road network*”.

5.11 Suffolk County Council's comments are:

- the majority of the new route would be off-line. This would minimise disruption during construction;
- in effect most of the existing A47 would be retained and hence could become part of the local road network, except for a short section immediately to the east of Yarmouth Road and further short section to the east of North Burlingham;
- This option offers the possibility of closing the existing Yarmouth Road at grade junction and providing a bridge between Yarmouth Road and the superseded section of trunk road;
- There is an opportunity to connect the superseded section of trunk road through North Burlingham to an improved junction with the B1140.

Option 4

5.12 This option follows an alignment running just to the south of the A47. The route passes predominantly through open farm land.

5.13 It is noted that *"the remaining existing A47 would, where unaffected by the new dual carriageway, become part of the local road network"*.

5.14 Suffolk County Council's comments are:

- the majority of the new route would be off-line. This would minimise disruption during construction;
- in effect most of the existing A47 would be retained and hence could become part of the local road network, except for a short section immediately to the east of Yarmouth Road and further short section to the east of North Burlingham;
- This option offers the possibility of closing the existing Yarmouth Road at grade junction and providing a bridge between Yarmouth Road and the superseded section of trunk road;
- There is an opportunity to connect the superseded section of trunk road through North Burlingham to an improved junction with the B1140.

6 Conclusion

6.1 Suffolk County Council accepts that further work is necessary to develop the case for this project including detailed traffic modelling, environmental survey work and economic assessments to confirm its viability and the appropriate layout to take forward through the DCO process.

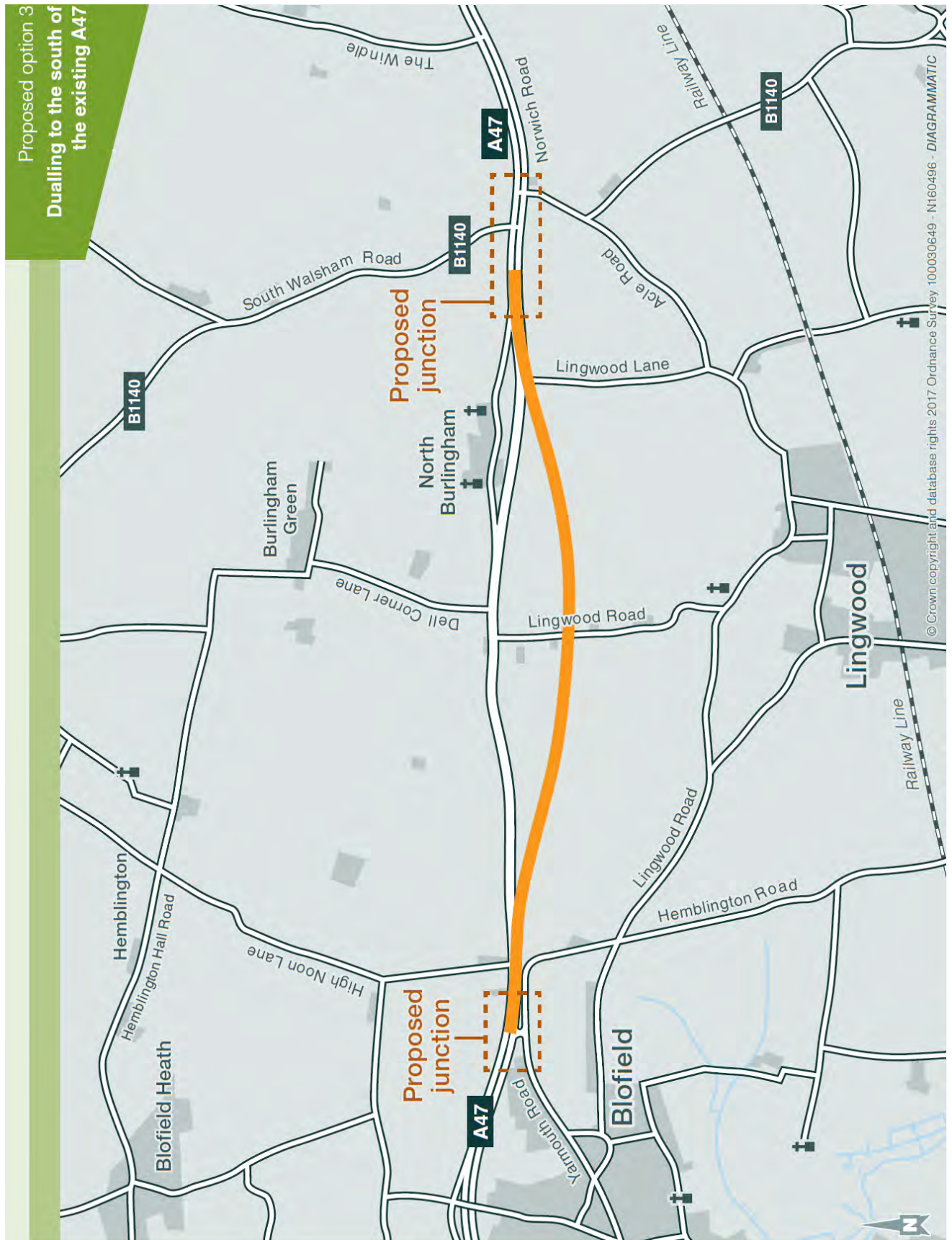
6.2 In principle Suffolk County Council supports the proposal to dual the A47 between Blofield and North Burlingham. Options 3 and 4 (see Appendix A) are the preferred routes as they:

- are likely to minimise disruption to trunk road traffic movements during construction; and
- will enable a local access strategy to be implemented with the least impact on trunk road traffic movements.

- 6.3 Suffolk County Council believes that improvements are necessary to reduce conflicts and risk of accidents at the existing Yarmouth Road and B1140 junctions and that these should be implemented as part of the A47 Blofield to North Burlingham dualling project
- 6.4 Suffolk County Council strongly advocates implementation of this project at the earliest opportunity.

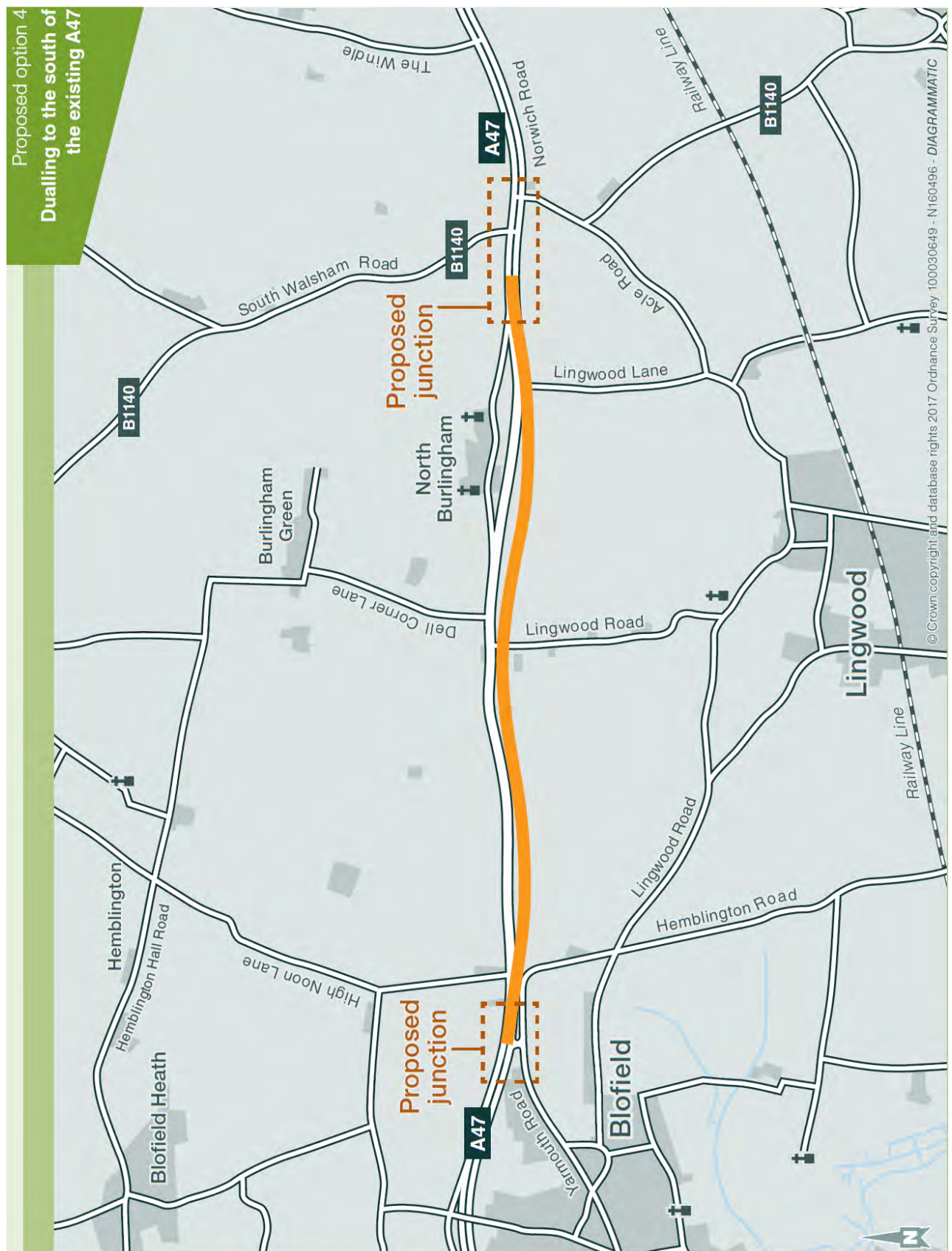
APPENDIX A

A47 Blofield to North Burlingham dualling Preferred Routes - Option 3



APPENDIX A (Continued)

A47 Blofield to North Burlingham dualling Preferred Routes - Option 4



Our Ref: Francesca Maran

Your Ref:

FOA Richard Hunt
Planning Inspectorate
Senior EIA and Land Rights Advisor

By email only A47BlofieldtoNorthBurlingham@pins.gsi.gov.uk

2 March 2018

Dear Sirs

Application by the Highways England (the Applicant) for an Order granting Development Consent for the A47 Blofield to North Burlingham (the Proposed Development)

This the response on behalf of UK Power Networks. I refer to your letter dated 7 February 2018 regarding the Proposed Development. UK Power Networks wishes to confirm that the Scoping Opinion only covers one area of the A47 improvements (Blofield to North Burlingham). The Proposed Development includes six areas in total one at the west end of the A47 is just outside of UKPN's area.

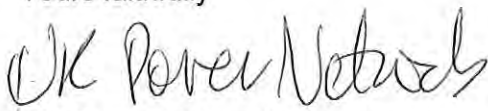
The Blofield to North Burlingham section will affect our existing infrastructure 11kV and 33kV overhead lines and 11kV and LV underground cables and will require appropriate protection for the retaining apparatus including compliance with relevant standards for works proposed within close proximity of its apparatus.

Where the Applicant intends to acquire land, extinguish rights, or interfere with any UKPN's apparatus, UK Power Networks will require appropriate protection and further discussion on the impact to its apparatus and rights.

UK Power Networks will therefore need to continue to be consulted and further assessments will need to be carried out by UK Power Networks on the additional areas, which may affect the UK Power Network's apparatus.

I trust the above information is useful. If you require any additional information please do not hesitate to contact me.

Yours faithfully



UK Power Networks

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