

**Broads Local Plan (August) Bite Size Pieces**  
Report by Planning Policy Officer

**Summary:** This report introduces the following topics of the Preferred Options Local Plan: Acle Straight, Climate Change, Conversion of Buildings, Design, Developer Contributions, Energy Efficiency, Health, Heritage, Landscape, Land Raising, Natural Environment, Open Space, Renewable Energy, Retail and Water Efficiency. There is also an amended site specific policy for Pubs.

**Recommendation:** Members' views are requested.

## **1 Introduction**

- 1.1 This bite-size piece of the Preferred Options discusses Acle Straight ,Climate Change, Conversion of buildings, Design, Developer contributions, Energy efficiency, Health, Heritage, Landscape, Land raising, Natural environment, Open space, Renewable energy, Retail and Water efficiency and Water quality. There is also an amended site specific policy for the pubs.
- 1.2 Members' views are requested to inform the draft policy approach in the Preferred Options.
- 1.3 It is important to note that this is not necessarily the final text or approach, but is part of the development of the final text. There could be other considerations that come to light between now and the final version being presented to Planning Committee in November 2016.

## **2 The Policies**

### Acle Straight

- 2.1 The policy sets out important considerations that will need to be addressing when planning and delivering any changes to the Acle Straight. The policy is set out at Appendix A.

### Climate change

- 2.2 This policy has been developed in conjunction with officers responsible for producing the Authority's Climate Change Adaptation Plan. It seeks to ensure that applicants have considered what could happen in terms of climate change and raises the issue of the level of risk applicants are willing to accept. The policy is set out at Appendix B.

### Conversion of Buildings

- 2.3 This is an amended version of policy DP21, and the current policy and the proposed tracked changes are shown at Appendix C.

### Design

- 2.4 This is an amended version of policy DP4. The current policy and the proposed tracked changes are shown at Appendix D.

### Developer contributions

- 2.5 This is a refreshed policy, and includes the proposed approach to the Community Infrastructure Levy. It is set out at Appendix E.

### Energy Demand and Performance

- 2.6 This is a new policy, which develops the content of DP7. It is set out at Appendix F.

### Health and Wellbeing

- 2.7 A new policy topic area for the Authority relating to work being carried out across Norfolk led by Norfolk County Council public health. It is set out at Appendix G.

### Heritage Policies

- 2.8 This includes strategic and detailed policies as well as an amended policy relating to the Mills, which is shown with tracked changes, at Appendix H.

### Landscape and Land Raising

- 2.9 The first part of this section is an amended DP2, with tracked changes shown. The second part is a new specific policy relating to the issue of land raising. Both are set out at Appendix I.

### Natural environment

- 2.10 This is essentially an update to policy DP1 and is set out at Appendix J.

### Open Space

- 2.11 This is a new policy topic for the Authority. It seeks to protect important areas of open space identified and assessed in our district's open space assessments; it defers to the district's open space policies. It is set out at Appendix K.

### Pubs

- 2.12 This updates adopted policy XNS6 and brings in some changes that the Authority would support. It is set out at Appendix L.

### Renewable Energy

- 2.13 This is a Topic Paper produced with assistance from George Papworth, the Planning Assistant, who has a background in renewable energy. It brings together research relating to renewable energy and includes an updated policy DP8. The Topic Paper and policy are at Appendix M.

### Retail

- 2.14 There is no policy proposed on retail, so this section gives an explanation of the proposed approach which will involve working with North Norfolk District Council and Waveney District Council relating to shared retail centres. It is at Appendix N.

### Water Efficiency

- 2.15 This requires new dwellings in the area served by Anglian Water to be built to a standard of 100 litres of water per head per day. It is set out at Appendix O.

### Water Quality

- 2.16 This set out the proposed amendments to current policy DP3, and is shown at Appendix P.

## **3 Financial Implications**

- 3.1 Generally officer time in producing these policies and any associated guidance as well as in using the policies to determining planning applications.

Background papers: As stated in the individual Appendices

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Appendices:

- APPENDIX A – Acle Straight
- APPENDIX B – Climate Change
- APPENDIX C – Conversion of buildings
- APPENDIX D – Design
- APPENDIX E – Developer contributions
- APPENDIX F – Energy demand and performance
- APPENDIX G – Health and wellbeing
- APPENDIX H – Heritage policies
- APPENDIX I – Landscape and Land raising
- APPENDIX J – Natural environment
- APPENDIX K – Open space
- APPENDIX L – Pubs
- APPENDIX M – Renewable energy
- APPENDIX N – Retail
- APPENDIX O – Water efficiency
- APPENDIX P – Water Quality

### Policy x – Changes to the Acle Straight (A47T)

Any improvements to the Acle Straight will need to consider the following – biodiversity mitigation and enhancement, visual impact, setting of the Broads, safety, congestion improvements and driving experience whilst retaining the special qualities of an iconic and highly protected landscape.

The Authority will proactively work with promoters and designers of any proposals for changes to any aspect of the Acle Straight, at an early stage and throughout the process especially the feasibility and design stages.

Any proposed schemes will need to :

- a) Demonstrate clearly the justification for the changes and with any benefits significantly outweighing any negative impacts;
- b) Undertake comprehensive constraint scoping at the earliest stage (particularly in relation to landscape, ecology and habitats, visual amenity, the historic environment, access, either temporary or permanent);
- c) Clearly demonstrate that there is no realistic alternative which would have avoided or had a lesser impact on the Special Qualities of the Broads Authority Executive Area;
- d) Set out clearly, based on robust evidence, the nature and scale of any resultant impacts to include those set out in b above;
- e) Demonstrate how any negative impacts would be mitigated or compensated for as well as opportunities taken to enhance the special qualities of the area, bearing in mind that the Broads Authority is a protected landscape of national importance; and

The following criteria must be addressed through the design and delivery of any changes to the Acle Straight and/or its access points.

- i) Detailed understanding and appropriate mitigation of impacts to designated wildlife areas and species.
- ii) Wildlife crossing points and habitat compensation.
- iii) Impacts on landscape, tranquillity and visual amenity are fully understood, reduced to a minimum and then appropriately mitigated.
- iv) Surface water run-off and pollution risk from spills fully understood and addressed in terms of containment methods, volume, flow and impacts on water quality
- v) Any scheme shall keep lighting to a minimal. Any lighting will need to be thoroughly justified and will be well designed and will not contribute to light pollution.
- vi) Walking, cycling and horse-riding route (or routes) with appropriate entry points and links to nearby urban areas and nearby public rights of way will be provided.
- vii) Interpretation measures and opportunities to safely enjoy and appreciate the iconic views to the mills and over the marshes will be provided.
- viii) Any enhancements to landscape, heritage, biodiversity, water management, recreation and habitat resulting from the Heritage Lottery Funded scheme (Water, Mills and Marshes) will need to be fully understood protected and enhanced.
- ix) Any impacts of the scheme on designated or undesignated heritage assets or their setting including waterlogged archaeology and traditional dyke networks will be thoroughly assessed and mitigated and opportunities taken to conserve and interpret the features that relate to the distinctive cultural landscape of the drained marshland.

- x) Transport infrastructure, including roads, bridges, lighting, signing, other street furniture and public transport infrastructure, will be carefully designed and maintained to take full account of the valued characteristics of the Broads.
- xi) Balancing accesses onto and from the road against the overall impact of the scheme on the special qualities of the Broads.

### CONSTRAINTS & FEATURES

- Entire length of Acle Straight in Flood Zone 3 (EA mapping)
- Western end: Damgate Marshes SSSI and The Broads SAC
- Eastern end: Breydon Water LNR, SSSI,
- Stracey Arms Drainage Mill (listed building) is next to the Acle Straight.
- Other listed buildings with a view towards the Acle Straight which can be viewed from the road.
- Halvergate Marshes Conservation Area
- The Broads is a site identified by Historic England as having exceptional potential for waterlogged Archaeology
- Undesignated Heritage assets which contribute to the Cultural heritage of the area such as the WW2 defences and assets identified on the Norfolk HER and Broads Local List.
- Numerous accesses to tracks to farms for example.
- Numerous level crossings accessed from the Acle Straight.
- Branch Road junction
- Little Whirlpool Ramshorn Snail (*Anisus vorticulus*) is a European protected species
- The Acle Straight runs in between railway line and river
- Open and flat landscape
- Historic dyke networks with associated features
- Rights of Way
- Future changes resulting from the HLF bid

### Reasoned justification

The A47 is the main east west connection in northern East Anglia. It links Great Yarmouth in the east with Norwich, King's Lynn and Peterborough to the A1. The A1 provides onward connections to the Midlands and north of England. At Great Yarmouth and Norwich connections to Europe and beyond are available via the port and airport. At Great Yarmouth the trunk road continues south, as the A12, to Lowestoft

The A47 passes through the Broads between Acle and Great Yarmouth – the Acle Straight.

It is important to note that this policy relates to any changes to the Acle Straight. This includes any safety improvements currently programmed for the road as well as any future plans for dualling the road.

There is an ambition promoted by the A47 Alliance to dual the A47 for its full length, including the stretch between Acle and Great Yarmouth. This is a long-term ambition, for post 2021. In the medium term, Highways England plan to undertake safety improvements at key hotspots on the Acle Straight. This could include the installation of safety barriers, junction improvements and road widening or capacity improvements.

In December 2014, funding was announced in the Autumn Statement to deliver improvements along the A47, including safety improvements along the Acle Straight. Two schemes in particular are of relevance:

- A47/A12 Great Yarmouth: junction improvements, including reconstruction of the Vauxhall roundabout.
- Safety improvements at key hotspots and joint working with Natural England to establish environmental impacts and mitigation measures for the medium and long term which could include installation of safety barriers, junction improvements and road widening or capacity improvements.

The dualling of the Acle Straight has the potential to come forward during the Plan Period. The Authority considers that this policy enables the designers of any future scheme to take into account and address in an adequate and appropriate way important issues and considerations.

The Broads Authority is unlikely to determine any future planning application for dualling the Acle Straight. The scheme is likely to be determined as a Nationally Significant Infrastructure Project (NSIP) by the Planning Inspectorate (because the developable area could be over 12.5 Ha and because the scheme could have environmental impacts<sup>1</sup>).

In relation to roads in particular, Defra guidance in the English National Parks and the Broads - UK Government Vision and Circular 2010, states: *'there is a strong presumption against any significant road widening or the building of new roads through a (National) Park unless it can be shown there are compelling reasons for the new or enhanced capacity and with any benefits outweighing the costs significantly. Any investment in trunk roads should be directed to developing routes for long distance traffic which avoids the Parks'*.

It should also be noted that the statutory purpose of the Broads Authority is to protect the interests of the Broads. Section 17A of The Norfolk and Suffolk Broads Act 1988 imposes a statutory duty on authorities to have regard to the relevant statutory purposes when exercising their functions that can affect land in the Broads.

For the avoidance of doubt, the special characteristics of the Broads are those set out at section x. Furthermore, of particular importance and relevance in understanding the impacts of any scheme are the Landscape Sensitivity Study<sup>2</sup> and Landscape Character Assessment<sup>3</sup>. Areas 19, 24, 25 and 20 of these studies are the relevant areas for consideration.

Fundamentally, because of the potential adverse impacts on the landscape, visual amenity, historic environment, ecology, habitats, access and the special characteristics of the Broads either in a temporary or permanent in nature that highway improvement schemes to the Acle straight may cause, any changes to the Acle Straight need to be thoroughly justified. Any changes need to be designed so as to reduce and avoid impacts on the special qualities of the Broads in the first place. Only then can mitigation be considered. The specific criteria are discussed in detail:

#### **Wildlife and habitats**

The Broads is one of the nation's most rich areas for biodiversity, with European designated habitats and species flanking and occupying the habitats close to the existing road.

European Protected species such as water vole, bats and otter are likely to be impacted by any changes. Water voles have suffered drastic declines across the country in recent years, however populations

<sup>1</sup> [http://www.legislation.gov.uk/ukxi/2013/1883/pdfs/ukxi\\_20131883\\_en.pdf](http://www.legislation.gov.uk/ukxi/2013/1883/pdfs/ukxi_20131883_en.pdf)

<sup>2</sup> <http://www.broads-authority.gov.uk/news-and-publications/publications-and-reports/planning-publications-and-reports/landscape-sensitivity-studies>

<sup>3</sup> <http://www.broads-authority.gov.uk/news-and-publications/publications-and-reports/planning-publications-and-reports/landscape-character-assessments>

in the Broads are still high. Any loss of water vole habitat in the ditches would need to be compensated and water vole populations translocated.

Any increase in lighting could potentially cause adverse impacts on bat populations in the area. Light pollution is known to deter bats from commuting and foraging areas, delay emergence for hunting, and cause disturbance to roosts.

The area is already a significant site for otter mortality. Road widening risks making this worse, so the Authority would expect changes which underline the need to include enhancements such as wildlife crossing points. Other impacts on wildlife would also need to be addressed, such as increased barn owl road fatalities.

Many of the grazing marsh ditches hold conservation designations of European importance, supporting important plant and invertebrate communities. Any impacts to the ditch network need to address this loss, considering alternatives, mitigation (including translocation), compensation, long term conservation and monitoring.

One of the already specified issues which changes to the Acle Straight would need to address is the Little Whirlpool Ramshorn Snail. The dykes around the current road are one of the few habitats of the Little Whirlpool Ramshorn Snail – which is on an international ‘red list’ of endangered species. Little Whirlpool Ramshorn Snail is a small aquatic snail with a flattened spiral shell of approximately 5mm in diameter. It has been declining from the UK since the 1960s, although the reason for decline is not clear. A study investigated the potential to translocate the snail (AECOM, March 2015). It concluded that translocation was a potential option but identified various considerations such as:

- Pathogen transference has been highlighted as an issue and as such receptor and donor sites should derive from the same drainage unit.
- Donor sites must have a robust population and only sites with no current population should be used as receptor site.
- In order to ascertain these sites and to increase knowledge of the target species robust pre translocation survey is a necessity.
- In addition receptor sites will need to be properly assessed to ensure the receiving habitat is suitable.

Large scale changes, such as dualling the Acle Straight, is likely to result in the loss of habitat as the surrounding dykes could be lost and so too could some marshland. The Authority would expect any loss to be avoided and then minimised with compensation likely to be required. Areas requiring compensation include the need to secure land purchase, conservation management or long term covenants for defined enhancements, and monitoring regimes. In the first place a scoring system for compensation should be worked up by independent consultant and agreed by all parties.

### **Landscape and tranquillity**

Another key issue is the impact of a dualled road on the landscape character of the Halvergate Conservation Area. The A47 crosses an area known as the Halvergate marshes or Halvergate triangle. This area forms one of the defining landscapes of the Broads area being a vast panoramic expanse of grazing marsh dotted with windmills and often teeming with wildlife. The sheer scale, inaccessibility and emptiness of much of the marshland means it remains largely quiet and isolated. It is designated as a Conservation area and its biodiversity interest is recognised through national and international designations. The dualling of the Acle straight has the potential to have a very significant impact on both the existing landscape character of the area (including tranquillity through increased traffic noise) and nature conservation interests.



Proposed highway improvement options are likely to range in scale, nature and extent. There are a number of key characteristics that that the potential to be effected through highway improvements. The significance of the effects on the landscape and visual amenity of the area (adverse or beneficial) of any option proposed will need to be assessed in accordance with current guidelines. Reference will need to be made to the current landscape Character assessments for Local Character Areas 19 and 25 and the Conservation Area appraisal<sup>4</sup>.

Duelling of the Acle straight is likely to cause significant adverse effects on the existing landscape character. Mitigation of these affects may be challenging and would need to recognise that common methods – such as screening tree belts – may be highly intrusive in terms of the extensive open landscape character.

Noise is an important aspect of tranquillity. Schemes should seek to address this, but the provision of noise barriers would be detrimental to the iconic landscape viewing potential along this route. There could be scope for low noise surfacing.

### **Surface water**

Put simply, changes to the Acle Straight could result in more impermeable surfaces which will lead to a greater volume of surface run off to wash more pollutants off the road surface. The sensitive habitats nearby could be adversely affected by pollutants.

Any changes to the Acle Straight need to address increased risk of flooding at that point as well as elsewhere by implementing sustainable drainage or SuDS and consider potential hazard to water quality from the surface runoff.

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)

The CIRIA SuDS Manual C753 (2015) does review how to design sustainable surface water drainage from highways as well as explaining how to design for water quality issues.

Additional measures to address accidental spills will also need to be considered.

The Acle Straight is almost entirely within an IDB area and so the Water Management Alliance should be consulted early. If infiltration is not favourable, they should be consulted to establish if surface water drainage discharge to a managed network would require consent.

The Environment Agency should also be consulted with regard to water quality and any particularly sensitive receptors nearby as well as in relation to strategic flood risk and any mitigation required to compensate for any floodplain affected.

### **Light pollution**

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<sup>4</sup> [http://www.broads-authority.gov.uk/\\_data/assets/pdf\\_file/0009/412893/Area\\_19\\_-\\_Halvergate\\_Marshes.pdf](http://www.broads-authority.gov.uk/_data/assets/pdf_file/0009/412893/Area_19_-_Halvergate_Marshes.pdf) and [http://www.broads-authority.gov.uk/\\_data/assets/pdf\\_file/0006/412899/Area\\_25\\_-\\_Fleggburgh\\_to\\_Bure\\_Loop\\_Arable\\_Marshlands.pdf](http://www.broads-authority.gov.uk/_data/assets/pdf_file/0006/412899/Area_25_-_Fleggburgh_to_Bure_Loop_Arable_Marshlands.pdf)

The Authority's Dark Sky Report (2016)<sup>5</sup> shows that the Acle Straight has good quality dark skies with the western end especially having very good quality dark skies<sup>6</sup>. Any schemes need to be assessed in line with policy x. See Light Pollution Policy.

### **Walkers, cyclists and horse riders**

Changes to the Acle Straight offer the opportunity to improve provision for walkers, cyclists and horse riders as well as provide new facilities. The Integrated Access Strategy identifies an aspiration to have a shared use path along the length of the Acle Straight. This would provide a new link to enable non car journeys between Acle and Great Yarmouth.

### **Interpretation and appreciation**

The route is a tourist route as well as an access route. Changes to the Acle Straight could include provision of parking laybys. These would allow people the opportunity to appreciate the iconic landscape. The Authority would expect these areas to have no impediment to view as well as the provision of interpretation points. This provision would add to the visitor experience of the Broads in this area.

### **HLF scheme**

The Broads Landscape Partnership has received an earmarked grant of £2.6m from the Heritage Lottery Fund (HLF) through its Landscape Partnership (LP) programme for the Water, Mills and Marshes project. The project aims to enrich and promote heritage sites in the area between Norwich, Great Yarmouth, Lowestoft, Acle and Loddon, unlock the benefits of this distinctive landscape for local people and give them the skills to protect it as a legacy for future generations. Iconic drainage mills on Halvergate marshes, an area which boasts one of the greatest concentrations in Europe, will be documented and renovated through a Heritage Construction Skills training scheme.

Delivery of the HLF project is set for 2018 to 2022. At the time of writing the Local Plan, the actual results of the scheme and their impact on the landscape in the Halvergate Marshes area is not known. The changes to the area will be an important consideration for any proposals to change the Acle Straight.

### **Heritage assets**

One listed building is located immediately adjacent to the Acle Straight. This is Stracey Arms Drainage Mill. The impacts of changes on this heritage asset will need to be addressed. There are also numerous other intervisible drainage mill structures both Nationally and Locally listed collectively forming the largest grouping in the UK all of which contribute to the Historic character of the drained marshland. The Norfolk HER<sup>7</sup> contains many records relating to the area both in terms of archaeology and built form, an example being the World War 2 defences that remain in situ on the marshes.

The special historic interest of Halvergate marshes is particularly significant as a constantly evolving cultural landscape. That evolution is illustrated by numerous remnant structures, landscape and archaeological features which collectively contribute to the historic significance of the area. Historic England has recognised this significance in terms of undiscovered archaeology and identified the Broads as an area of *exceptional potential for waterlogged heritage*. Fundamentally, because of the

<sup>5</sup> [http://www.broads-authority.gov.uk/\\_data/assets/pdf\\_file/0007/757402/Broads-Authority-Dark-Skies-Study-March-20161.pdf](http://www.broads-authority.gov.uk/_data/assets/pdf_file/0007/757402/Broads-Authority-Dark-Skies-Study-March-20161.pdf)

<sup>6</sup> The readings taken along the Acle Straight were all over 20 arc magnitudes per second with those to the western end of the Acle Straight in particular being over 20.5 arc magnitudes per second.

<sup>7</sup> <http://www.heritage.norfolk.gov.uk/>

soil conditions in the Broads, there is great potential for archaeology to be well preserved giving an insight into the past. See policy x on which relates to archaeology.

Virtually the whole of the Acle straight corridor lays within the Halvergate Marshes Conservation Area a designated Heritage Asset which is characterised by the Cultural landscape and the features within it.

The Authority would expect that the historic significance including potential Archaeological significance of the area is fully assessed and analysed in any proposal for changes to the Acle straight. The Historic environment is a finite resource and once lost cannot be replaced. The Authority therefore expect that any adverse impact on the Historic environment either built, landscape or archaeological is kept to an absolute minimum and any adverse impact resulting from change is fully assessed and can be justified in line with the tests set out in section 12 of the NPPF. Furthermore where justification for harm can be made then any impact or harm should be mitigated including improvements to existing features.

### **Practicalities**

The current route has various pinch points bounded by river on one side and railway on the other. These may mean that any improvements cannot be fitted 'on-line' and a wider route choice corridor has to be considered. This could have immense implications on the landscape, history and ecology and could alter the attitude of the Authority to any proposals. Therefore such constraint scoping needs to be undertaken very early on in the process.

### Comments received at the Issues and Options stage

**South Norfolk Council** supports the dualling of the Acle Straight because, whilst acknowledging that there will be environmental concerns, it has the potential to bring significant economic benefits to the area. A criteria based policy may be best way forward without being too prescriptive about the precise land take needed for the scheme.

**Great Yarmouth Borough Council:** The dualling of the Acle Straight has long been an ambition of the Borough Council, and is important for the long term health of industries in the Borough which are important to the wider and national economy. Whilst the Borough does not disagree that the dualling has some potential for significant adverse impacts, there are also benefits which could potentially be achieved as part of the development, and the approach to the dualling could be framed in a more positive way. (That there is a rare species in the vicinity of the existing road would seem to indicate that development and the environment are not as incompatible as commonly assumed.) For example, tree or other screening of the vehicles (especially their lights) on the road is now largely absent, but could potentially be included as part of the development of a dual carriageway, achieving a net gain for the landscape and tranquillity. (It is understood that when the Acle Straight was originally constructed it was lined for its entire length with (pollarded) willows, primarily for the consolidation of the road embankment by their roots, but also resulting in significant screening of traffic. Sadly, these trees have now been lost for most of the Straight's length, as has occurred elsewhere in and around the Broads.) As another example, low noise road surface would help reduce traffic noise. Hence the Borough Council considers that it could be appropriate for the Broads to have a policy which supported the development of the dualled road, subject to realistic criteria for appropriate protections and enhancements of the area's special qualities.

**Historic England** would expect consideration of the historic environment in any policy development for this section.

### Alternatives

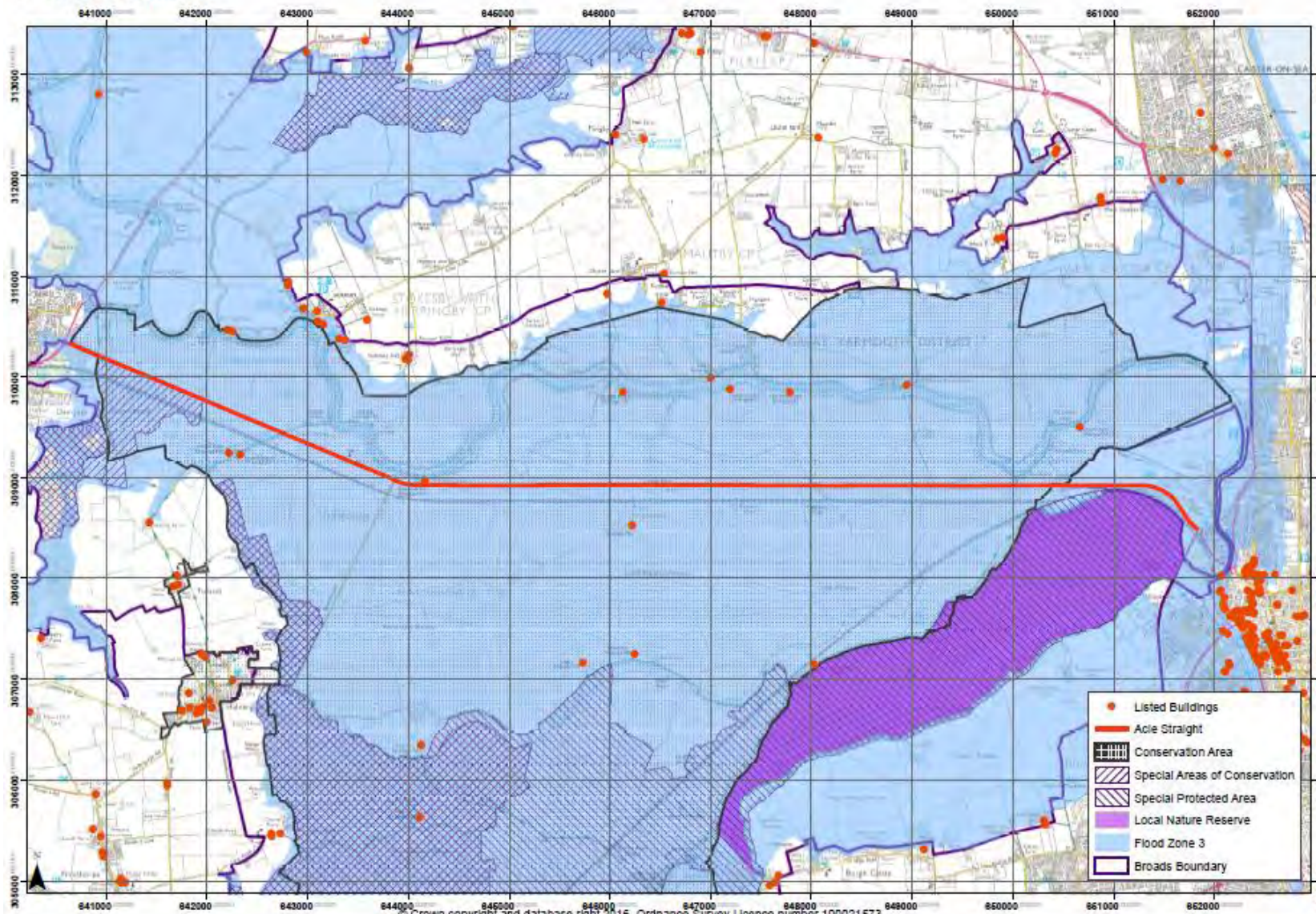
**No policy.** This option was not taken forward as the Authority wishes to set ours what it thinks are important considerations early on in order to inform any preparatory surveys or design work.

**Allocate site for dualling.** This was not taken forward as the precise land take for the scheme is not known yet. For example, it is not known where parking laybys will be located and it is not known what kind of junction treatments will be proposed.

DRAFT



# ACLE STRAIGHT



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The Broads Authority Boundary dataset is a representation indicating the location of the executive boundary at 1:10000. The definitive paper map is held by the Broads Authority which shows the legal boundary at 1:10000.

### Policy X: Climate Change

Development proposals with residential and/or commercial elements (new or increasing space) must demonstrate how climate change has been taken account of in the scheme with the submission of a Climate Smart Checklist.

#### Reasoned Justification

The low-lying and coastal nature of the Broads and the dominance of water as a feature in the landscape make it particularly vulnerable to the effects of climate change and sea level rise. The current projections are that by mid-century we will start to see significant climate change (UKCIP 2009) and early adaptation planning is likely to save money and better protect property and lives in the long run.

Climate projections for the Broads will depend on how effectively we deal with global greenhouse gas emissions. There will be some inevitable change to the climate due to the gases already in the atmosphere but the more extreme changes should be avoided if there is prompt action to reduce emissions in the short term.

In simple terms, the best current opinion<sup>1</sup> about likely changes which will impact on the Broads include warmer, drier summers, slightly wetter, warmer winters and more extreme events in terms of frequency and severity. The sea level is already rising and this is being increased by a changing climate.

The Broads are therefore very vulnerable to greater flood risk, storms, droughts and heatwaves which could affect how we are able to use land and buildings, how we get around, the wildlife around us and how the environment we enjoy appears and functions.

It is acknowledged that the extent to which climate change happens, and its impact on the Broads, will be affected by actions nationally and globally and Local Plan policies cannot protect the Broads from this. They can, however, contribute to an approach which seeks to reduce climate change where possible through positive action and mitigate its effects.

There are two general approaches to the issue of climate change, both of which have a role if we wish to retain the special qualities of the Broads and all the services it gives society:

- Climate change mitigation is about reducing greenhouse gas emissions through changing behaviour. For example improving housing insulation to reduce energy demand, installing solar panels so relying less on fossil fuels and using the car less.
- Climate change adaptation and resilience is about being prepared for a changing climate. For example connecting up habitats to allow species to move according to climate conditions or identifying particular areas ready to take excess water in times of flood.

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<sup>1</sup> UK CIP (Climate Impacts Programme) 2009 'medium emissions' scenario for the East of England

Section 19 (1A) of the Planning and Compulsory Purchase Act 2004 requires local planning authorities to include in their Local Plans:

*'policies designed to secure that the development and use of land in the local planning authority's area contribute to the mitigation of, and adaptation to, climate change'.*

The Local Plan includes specific policy approaches that seek to address mitigation and adaptation needs such as through the approach to renewable energy, flood risk management, housing resilience and standards, and transport (See XXX).

Additional to these specific policies, the Authority promotes the use of a 'climate smart' approach whereby any proposed development is reviewed against climate projections<sup>2</sup> to see what resilience and adaptation options should be included to help inform the detail of proposals. This includes identifying changes that will need to be implemented when certain 'trigger' conditions are reached and building in sufficient flexibility to cope with differing climate scenarios. It could also suggest seeking revised outcomes if the climate changes cannot be accommodated in the initial ideas. (see XXX for details of the climate smart planning cycle).

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<sup>2</sup> <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>

### Appendix x: Climate Smart Checklist

#### How to fill this out

Consider the development as a whole, and in terms of its constituent parts including groundworks, construction (low and high level), height of items, water flow on and off the site, proximity to external risk factors (including sea, rivers, streams, ditches, trees, other construction).

The Authority suggests that you initially consider your development set against current 'average' weather. Then consider what extremes have been happening and what those impacts might do to your development. For example, can it cope with sudden intense rain showers? Would a week of mid 30°C temperatures melt anything?

You should then consider the projections for the climate in the future (related to how long you think your development will last). As they are only projections you are advised to first consider how likely you think something might happen (for example, if you think greenhouse gas emissions will come down quickly the chances of the highest level projections being reached are slim – and vice versa).

You should also consider your attitude about what level of risk you can live with (for example tolerating significant fluctuations in temperature so if you think this is an unacceptable risk, you may incorporate certain features in your development). You may also want to think about potential future occupiers and how attractive climate-smart features would be to them.

Looking at the future will help you consider whether your development needs to be more resilient or be altered (adapted) to better deal with impacts (e.g. moved to a different part of the site where there will be more shade for the house, or tree planting to provide this).

It is particularly important to consider the predicted change in extreme conditions as they may well be more frequent as well as reaching new highs or lows, for example intense burst of rain due to thunderstorms.

#### Additional information and advice

To support the use of a checklist to get the best from the development proposals the Broads Authority has some additional material

- a. Sustainable Development Guide. Produced in 200X this gives comprehensive advice across a range of development types on incorporating a sustainable approach. This Guide will be reviewed every 3 years to see if /when a revision is required
- b. Broads<sup>0</sup>Community advisory material: The Broads<sup>0</sup>Community material is produced on behalf of the Broads Climate Partnership and gives more detailed suggestions regarding managing change for farmers, businesses and communities. It helps identify adaptation options related to climate projections.
- c. Broads Adaptation Plan: produced in 2015 the Plan puts in context the thinking around Climate Adaptation for the Broads setting out the favoured climate-smart approach.



### Explanatory notes

Remember that, just as now, there will be chances of extremes at both ends of the range (e.g. heavy snow fall, winter heatwaves, freak hailstorms, flash flooding) for which you should already be making allowances according to your assessment of risk.

**Sea level rise** – the current projections range from 37cm to over 1m by the end of the century. A rising sea increases the threat of over-topping defences or stopping heavy rainfall from running out to sea. It is also likely to mean salty water is pushed further up the rivers (altering wildlife distribution and perhaps increasing corrosion) and could mean air draught under bridges at high tide is likely to be reduced. Higher initial levels could also mean worse impacts when surge conditions (strong winds and depressions) combine to push water inland.

**Surface water flooding** – with more impermeable surfaces due to development, heavy rainfalls can overwhelm drains and ditches and give rise to a higher threat of surface water flooding. By keeping land permeable to rainfall, having overflow areas that can hold excess water or incorporating flood barriers into the building, the risk can be lowered.

**Increased water temperature in watercourses** – increased temperature alongside high nutrients might increase the probabilities of blue-green algal blooms (which can be toxic) or excessive aquatic vegetation growth. Furthermore the increased river/lake temperature may affect the overall distribution of species with a knock on effect on recreation interests for example.

**Heatwaves** – periods of high temperature caused by trapping energy in the atmosphere, along with more cloud free days could see the prolonged periods of sunshine melting certain materials or causing human health issues. Developing ways to shade living and working spaces (such as window shutters or tree planting ) may provide improved tolerance.

**Drought** – longer periods of no rainfall could put stress on water levels. This may affect the environment and wildlife (low flow in rivers, ponds drying out for example) but could also decrease the amount available for people to use

**What will happen to the development and/or the users or occupiers if there is...?**

		Impact level. Put a x to indicate impact.				Why do you think this? What can you do to reduce this impact level? How have you designed the development to address this?
		Small	Medium	Significant	Extreme	
Higher summer temperatures (average and maximum)						
Longer periods of drought during the summer						
Longer periods of cloud free days						
Water (River, stream and lake) temperatures increased through year especially the summer						
Rainfall coming in more intense bursts.	Greater potential for surface water flooding					
	More potential for higher ditch, stream and river levels					
Fewer frosty days						
More frequent storms – the effect of rain and wind						
More extreme / intense storms – the effect of rain and wind						
Rise of sea level						
Increase in salinity of the rivers						
Surge conditions in the North Sea						

Next steps

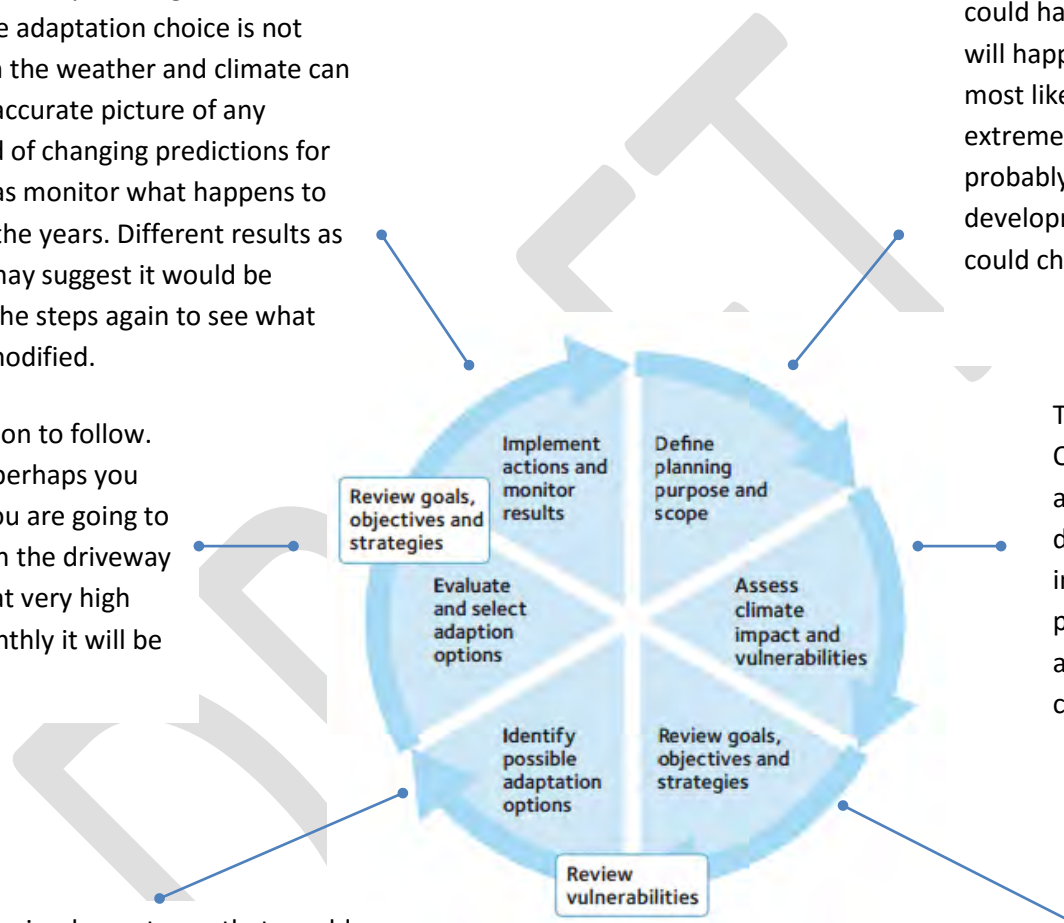
According to your acceptance of risk, you may wish to make more detailed exploration and assessment when your self-assessment reaches a certain level (e.g. for all significant and above impacts).

It may be sensible to keep an accurate record of your options and decisions so that you can go back to the assumptions made if the adaptation choice is not working. The changes in the weather and climate can be recorded to give an accurate picture of any changes. Keep informed of changing predictions for climate change as well as monitor what happens to you development over the years. Different results as to what was expected may suggest it would be sensible to go through the steps again to see what needs to, or could, be modified.

Make the choice about which option to follow. This may be immediate action of perhaps you can identify triggers as to when you are going to act (e.g. you are willing to live with the driveway being flooded a few times a year at very high tides but when it's happening monthly it will be time to act).

Are there actions that you can implement now that would help you cope with a new climate regime? Can you alter construction or management choices that minimise any risks? Perhaps what you construct can be altered easily in the future if predictions and/or on site experience is worse than you planned for? Are there different technologies that could be applied that would lessen risks? If no options seem possible you may wish to go back through the steps and modify your goals or objectives.

### Climate smart planning cycle



Climate change predictions are based on what could happen, rather than people knowing what will happen. As such, do you want to consider the most likely changes or be prepared for the most extreme conditions just in case they arise? You probably need to understand the lifetime of your development (see section xx) and how things could change over the timescale.

Taking the preferred projections (See the Met Office/UKCIP09 projections website for more detail and explanation) consider what the climate differences are likely to be and how they may impact on the proposed development. List, and possibly rank, the likely things that could create an adverse impact as well as any opportunities a changing climate might offer for your development

What do you want to achieve? What will you have at the end of the timescale being considered? For example, how often will you use the development and at what time of year? Perhaps the flood impacts will be negligible or not manifesting themselves in the short-term. Be clear about what you would prefer to have in the future – a development that never floods or one that floods a few times a year for example.

## Policy x: Conversion of Buildings

The re-use, ~~conversion or change of use rural~~ of buildings and structures to employment, tourism (including holiday accommodation for short stay occupation on a rented basis), recreation and community uses will be supported where:

a) The building makes a positive contribution to the landscape of the Broads to make it worthy of retention;

~~a)b)~~ The building can be redeveloped without an adverse effect on the character of the Broads landscape or its setting and the redevelopment takes the opportunity to make a positive contribution to the appearance of the locality;

~~b)c)~~ A structural survey demonstrates that the building is structurally sound and capable of conversion without major rebuilding and/or substantial extension;

~~e)d)~~ The proposal is of a high quality design, retaining the external and/or internal features that contribute positively to the character of the building, including original openings and materials, and with minimal intervention to the original form and fabric of the building (e.g. new openings).

~~e)e)~~ The nature, scale and intensity of the proposed use are compatible with, and would not prejudice, surrounding uses and the character of the locality;

f) The highway network is able to accommodate safely the demands resulting from the proposed use;

~~e)g)~~ The design and details of conversion will maintain, and enhance, restore or add to biodiversity; and-

h) it incorporates measures to enhance the environmental performance of the building, where appropriate.

For proposals outside development boundaries the above criteria will apply as well as:

i) The building is in a sustainable location with adequate access to services and facilities.

The conversion of a building or structure to a residential use outside a development boundary, where the building would be used as a second home or for the main residence of the occupiers, will only be acceptable when it is clearly demonstrated that employment, recreation, tourism and community uses would be unviable.

~~In addition to the above criteria, the conversion of a building in the countryside to residential use will only be acceptable where the building has adequate access to services and facilities.~~

#### Reasoned Justification

The re-use of buildings in the countryside can support the vitality of rural communities and help minimise the need for new built development which has the potential to detract from the special landscape character of the Broads. The Authority is therefore generally supportive of the re-use of appropriately located and suitably constructed buildings in the countryside. Nevertheless, certain buildings may not be suitable for conversion and re-use.

The building must be of a sufficient quality to warrant retention. Large, modern agricultural and industrial buildings will generally be considered to be unsuitable for conversion. Generally, the Authority will consider the appearance and architectural value of the building as well as how it contributes to the Broads' landscape as well as the streetscene both prior to and following conversion.

The term 'holiday accommodation' means that which is permitted by policy x i.e. short term holiday lets.

The conversion and re-use of buildings in the countryside will only be acceptable where a structural survey undertaken by an independent Structural Engineer demonstrates that the building is structurally sound and capable of conversion without major rebuilding or reconstruction. ~~The building must be of a sufficient quality to warrant retention. Large, modern agricultural and industrial buildings will generally be considered to be unsuitable for conversion.~~

To protect the character of the building and the surrounding landscape, all conversion works must be undertaken sensitively, utilising a high standard of design and good quality materials. The erection of substantial extensions can have a detrimental impact on the original form of a building or group of buildings and on the openness and special character of the landscape, while the removal of external features, including original openings and materials, can erode the character of the building. It is expected that such conversion works should involve minimal intervention to the original form and fabric of the building (e.g. new openings).

## APPENDIX C

Applicants should be aware that buildings in the countryside have the potential to provide important breeding and resting places for a number of species protected under a range of legislative provisions, including bats, barn owls or nesting birds. In accordance with policy x, if the presence of a protected species is suspected, the applicant will be required to submit an appropriate protected species surveys. The policy also seeks to ensure that conversion works should aim to maintain, and enhance, restore or add to biodiversity. If a proposal is considered in the context of this policy to potentially have an effect on an internationally designated site then it will need to be considered against the Habitats Regulations and a project level Appropriate Assessment undertaken.

[Proposals within a development boundary are deemed to have very good access to services and facilities.](#) While it will not always be possible to apply the same standards of accessibility that would be applied in established settlements to proposals in the countryside, when assessing proposals to convert a building in the countryside regard will be given to the sustainability of the location and the impact the proposed use would have on the local highway network.

Residential conversions may be appropriate for some types of buildings and in certain locations, providing that it has been demonstrated that a commercial or community use of the building is unviable and that the building is of sufficient quality to merit retention by conversion. Applications to convert a building outside of a development boundary to residential use should be accompanied by a report undertaken by an independent Chartered Surveyor that demonstrates why employment, recreation, tourism and community uses would not be viable due to inherent issues with the building. This should include details of conversion costs, the estimated yield of the commercial uses and evidence of the efforts that have been made to secure economic, leisure and tourism re-use during the previous 12-month period. [The Authority will need to verify the content of such a report and may need to employ external expertise to do so \(The applicant will need to meet the cost of this\).](#)

Where a building is of historic or architectural merit, regard must be had to Policy DPx Re-use of Historic Buildings.

[There are permitted development rights to change the use of existing buildings. These are however less permissive in the Broads than in other undesignated areas. Your proposal may not require planning permission, but you are advised to check with Development Management Officers at the Broads Authority for advice.](#)

### Alternative Options

Comments received as part of the Issues and Options:

Sustainability Appraisal Summary

Evidence used to inform this section

Monitoring Indicators

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## Policy x - Design

All development will be expected to be of a high design quality. Development should integrate effectively with its surroundings, reinforce local distinctiveness and landscape character and preserve or enhance cultural heritage. Innovative designs will be encouraged where appropriate.

Proposals will be assessed to ensure they effectively address the following matters:

- a) **Siting and layout:** The siting and layout of a development must reflect the characteristics of the site in terms of its appearance and function.
- b) **Relationship to surroundings and to other development:** Development proposals must complement the character of the local area and reinforce the distinctiveness of the wider Broads setting. In particular, development ~~sh~~all~~ould~~ respond to surrounding buildings and the distinctive features or qualities that ~~con~~tribute to the landscape, streetscape and waterscape quality of the local area. Design ~~sh~~all~~ould~~ also promote permeability and accessibility by ~~making places connect with each other and~~ ensur~~ing~~ ease of movement between homes, jobs and services and creating links to public transport services.
- c) **Mix of uses:** To create vitality and interest, proposals should incorporate a mix of uses where possible and appropriate.
- d) **Density, scale, form and massing:** The density, scale, form, massing and height of a development must be appropriate to the local context of the site and to the surrounding landscape/streetscape/waterscape character.
- e) **Appropriate facilities:** Development ~~sh~~all~~ould~~ incorporate appropriate waste management and storage facilities, provision for the storage of bicycles and connection to ~~virtual~~ communication networks and, if feasible, off-site provision for a bus shelter and/or a bus service serving the development.
- f) **Detailed design and materials:** The detailing and materials of a building must be of high quality and appropriate to its context. New development should employ sustainable materials, building techniques and technology where appropriate.
- g) **Crime prevention:** The design and layout of development should be safe and secure, with natural surveillance. Measures to reduce the risk of crime and antisocial behaviour must however not be at the expense of overall design quality.
- h) **Adaptability:** Developments ~~sh~~all~~ould~~ be capable of adapting to changing circumstances, in terms of occupiers, use and climate change (including change in water level). In particular, dwelling houses should be able to adapt to changing family circumstances or ageing of the occupier in accordance with 'Lifetime Homes' standards and commercial premises should be able to respond to changes in industry or the economic base.
- i) **Flood Risk and Resilience:** Development ~~sh~~all~~ould~~ be designed to reduce flood risk but still be of a scale and design appropriate to its Broads setting. Traditional or innovative approaches may be employed to reduce the risks and effects of flooding.
- j) **Biodiversity:** The design and layout of development ~~sh~~all~~ould~~ aim to ~~maintain~~protect, provide for, and enhance, restore~~restore and enhance~~ or add to biodiversity.
- k) **Accessibility:** Applicants are required to consider if it is appropriate for their proposed dwelling/some of the dwellings they propose to be built so they are accessible and adaptable and meet Building Regulation standard M4(2) and M4(3). If applicants do not consider it appropriate, they need to justify this.

**l) High quality landscaping.** *\*Planning Committee please note that this criterion will come to Planning Committee in September\**

#### Reasoned Justification

Good design is vital for protecting and enhancing the special character of the Broads. It is also essential for achieving truly sustainable development. The design principles set out in this policy provide a high-level design framework for new development that supports the diverse nature of good design. All development proposals should demonstrate compliance with the design principles in the policy. Where development proposals are required to be accompanied by a Design and Access Statement, it should be used to explain how the principles of good design, including the issues criteria set out in this policy, have been incorporated into the development.

Development proposals are not designed in isolation from their context. Although there is considerable variation in local architectural styles, buildings in the Broads are typically of simple construction, often from lightweight materials, and of a scale which blends with their natural surroundings. New development should take account of the characteristics of the site, as well as the distinctiveness of the wider Broads' setting, and make a positive contribution to the surrounding area. The density, scale and mix should be compatible with the character of the local area and avoid adverse impacts of development on views, vistas and skylines. In accordance with PPS1, the NPPF and NPPG, the Authority considers design to be of great importance and development will not be acceptable if its design is inappropriate in its context, or fails to take opportunities available for improving the character and quality of an area and the way it functions. In the interests of sustainability and good design, it is also important to promote ease of movement, ensuring places are easy to move within and between, and to facilitate ease of movement between places where people live, work and use services and recreation.

Particular aAttention should be given to details in regard to the appearance of development in the Broads landscape. This should take into account the form, mass and scale the decoration of a building or structure, reference broads vernacular and local detailing and the texture, colour, pattern and durability of materials used. To improve the sustainability and local distinctiveness of new development, the use of locally sourced materials will be encouraged and materials recovered from demolished structures on site maybe re-used will be encouraged where it is feasible and appropriate and appropriate. However, it is acknowledged that there will be instances when modern construction methods and sustainable design solutions maywill necessitate the use of other sustainable materials.

Appropriate facilities for users of new development should be integrated effectively into its design and layout to ensure that they can be accessed in a safe and convenient manner and do not detract from the overall appearance of the development. The nature of the facilities will vary depending on the development proposed, but should include waste management and storage facilities to aid recycling, provision for the safe, secure and user friendly storage of bicycles in locations convenient to the cyclist, with good natural or CCTV surveillance to help reduce cycle theft, and connection to virtual communication networks (telephone and broadband). and, if feasible, off-site provision for a bus shelter and/or a bus service serving the development.

The safety and security of the users of new development is an important consideration at an early stage in the design process. The attributes of good design include safer places; well-designed development will create safe, sustainable and attractive places to live and work. It is therefore important that new development is designed to minimise both the opportunity for crime and the perception or fear of crime, while ensuring that other planning and design objectives are not compromised.

With regards to adaptable dwellings, the Authority refers to the 16 criteria relating to Lifetime Homes<sup>1</sup>. The Authority encourages new housing to be built to the Lifetime Homes standard, which makes it easier for people to remain in their own homes as their mobility needs change, through encouraging homes to be built in a way in which rooms can be used flexibly over time. The criteria in policy x also contribute towards the creation of safe, functional and well-designed communities as aspired to by the Government's Lifetime Neighbourhoods<sup>2</sup> ambitions.

Assessment of design quality for major applications for residential development will be made using the Building for Life 12<sup>3</sup> criteria and applicants will be expected to demonstrate that the scheme positively addresses relevant categories. The Building for Life criteria (see Appendix x) are reflected in policy x design and therefore addressing the specific requirements of Building for Life will contribute towards meeting the requirements of policy x.

The Authority also encourages the provision of some dwellings, in appropriate locations, to be designed to be accessible and accommodate wheelchairs. The details are set out in the Building Regulations part M<sup>4</sup>. The Census 2011 shows that the Broads Authority Executive Area has an ageing population and older people could benefit from more accessible dwellings. The NPPG<sup>5</sup> is clear, however, in saying that '*Local Plan policies should also take into account site specific factors such as vulnerability to flooding, site topography, and other circumstances which may make a specific site less suitable for M4(2) and M4(3) compliant dwellings, particularly where step free access cannot be achieved or is not viable. Where step-free access is not viable, neither of the Optional Requirements in Part M should be applied*'. The Authority acknowledges that this standard may not be appropriate in some locations or for some schemes, but applicants are required to justify reasons for not including dwellings that are accessible and adaptable.

In relation to the layout of the development, it is important that proposals are able to accommodate access by emergency service vehicles and waste disposal vehicles.

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<sup>1</sup> Lifetime Homes Standards Homes that are accessible to everybody and where the layout can be easily adapted to meet the needs of future occupants. <http://www.lifetimehomes.org.uk/>

<sup>2</sup> <https://www.gov.uk/government/publications/lifetime-neighbourhoods--2>

<sup>3</sup> <http://www.designcouncil.org.uk/resources/guide/building-life-12-third-edition>

<sup>4</sup>

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/506503/BR\\_PDF\\_AD\\_M1\\_2\\_015\\_with\\_2016\\_amendments\\_V3.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/506503/BR_PDF_AD_M1_2_015_with_2016_amendments_V3.pdf)

<sup>5</sup> <http://planningguidance.communities.gov.uk/blog/guidance/housing-optional-technical-standards/accessibility-and-wheelchair-housing-standards/>



When designing new development, consideration should also be given to the design implications set out in other policies in this plan. Of particular relevance are the policies on: ~~DP2:~~ Landscape and Trees; ~~DP3:~~ Water Quality and Resources; ~~DP5:~~ Historic Environment; ~~DP7:~~ Energy Generation and Efficiency; ~~DP11:~~ Accessibility on Land; ~~DP12:~~ Accessibility to Water; ~~DP28:~~ Amenity and ~~DP29:~~ Development on Sites with a High Probability of Flooding. Regard should also be had to the ~~guidance contained within the Broads Authority's Sustainability Guide.~~ Biodiversity Enhancements Guide and the Planning for Waterside Properties Guide.

Appendix x: Building for Life 12 – assessment criteria

### **Integrating into the neighbourhood**

**1 Connections:** Does the scheme integrate into its surroundings by reinforcing existing connections and creating new ones, while also respecting existing buildings and land uses around the development site?

**2 Facilities and services:** Does the development provide (or is it close to) community facilities, such as shops, schools, workplaces, parks, play areas, pubs or cafes?

**3 Public transport:** Does the scheme have good access to public transport to help reduce car dependency?

**4 Meeting local housing requirements:** Does the development have a mix of housing types and tenures that suit local requirements?

### **Creating a place**

**5 Character:** Does the scheme create a place with a locally inspired or otherwise distinctive character?

**6 Working with the site and its context:** Does the scheme take advantage of existing topography, landscape features (including water courses), wildlife habitats, existing buildings, site orientation and microclimates?

**7 Creating well defined streets and spaces:** Are buildings designed and positioned with landscaping to define and enhance streets and spaces and are buildings designed to turn street corners well?

**8 Easy to find your way around:** Is the scheme designed to make it easy to find your way around?

### **Street & home**

**9 Streets for all:** Are streets designed in a way that encourage low vehicle speeds and allow them to function as social spaces?

**10 Car parking:** Is resident and visitor parking sufficient and well integrated so that it does not dominate the street?

**11 Public and private spaces:** Will public and private spaces be clearly defined and designed to be attractive, well managed and safe?

**12 External storage and amenity space:** Is there adequate external storage space for bins and recycling as well as vehicles and cycles?

Policy x: Developer Contributions

*\*Planning Committee please note that we will investigate the element of the current policy that relates to dredging in further detail\**

The Authority will seek appropriate contributions from developers in order to serve the development and its occupants.

Where the development is of a type that will introduce additional pressure on the Broads area, including for permanent moorings, contributions will be sought towards the appropriate provision of social facilities and benefits including affordable housing, biodiversity enhancement, recreational, community and navigation facilities and to achieve sustainable development.

Contributions may be sought towards:

- a) Affordable housing (as detailed in policy x);
- b) Community infrastructure (including police and fire service provision, community halls, sports facilities, education facilities and libraries);
- c) Green infrastructure and biodiversity/geodiversity on-site mitigation, management, off-site compensation and/or enhancement;
- d) Open space and children's play facilities;
- e) Landscaping, landscape enhancement and management;
- f) Public footpaths, rights of way, green-links, signing and maintenance;
- g) Waste management and recycling facilities;
- h) Highway works and/or improved public transport facilities and funding for the implementation of Travel Plans;
- i) Flood management/mitigation;
- j) Dredging to maintain navigation;
- k) Administrative costs;
- l) Visitor or de-masting moorings; and
- m) Conservation or enhancement of heritage assets.

Other contributions may be sought in appropriate circumstances. Where appropriate, the standards and thresholds adopted by the relevant authority will apply, including Housing Authorities. Contributions may be pooled with others from outside the Broads area, in order to fund wider community infrastructure.

Reduced contributions, where necessary (for example due to the exceptional costs of redeveloping a particular site) will be negotiated on an 'open book' basis based on the financial viability of the scheme.

Reasoned Justification

Development can place additional pressure upon physical infrastructure, social facilities and green infrastructure, and it is a well-established principle that new development should contribute towards the cost of meeting these additional demands. Developer contributions (also referred to as

Planning Obligations) are a means of funding works to mitigate the impact of development and provide benefits to local communities and support the provision of local infrastructure.

S106 contributions are private agreements negotiated between local planning authorities and developers to mitigate the impact of development. For example, planning obligations might be used to prescribe the nature of development (e.g. by requiring that a given proportion of housing is affordable); or to secure a contribution from a developer to compensate for loss or damage created by a development (e.g. loss of open space); or to mitigate a development's impact (e.g. through increased public transport provision).

Where existing infrastructure is inadequate to meet the needs of new development, the Authority will use conditions or planning obligations to ensure that proposals are made acceptable through securing the provision of necessary improvements to facilities, infrastructure and services.

The nature and scale of any contribution sought for this purpose will be related to the development proposed and its potential impact upon the surrounding area. It is important to consider the following in relation to Developer Contributions:

- Developer contributions need to be necessary to make the development acceptable in planning terms, directly related to the development and be fairly and reasonably related in scale and kind to the development.
- The combined total impact of contributions should not threaten the viability of the scheme.
- There are pooling restrictions on S106 contributions whereby only five contributions can be sought towards generic types of infrastructure.

The Authority will seek contributions towards transport, police and fire service provision, education facilities, libraries and social service provision where appropriate, utilising Planning Obligations standards prepared by Norfolk and Suffolk County Councils. The Authority will also apply the standards and thresholds adopted by the relevant constituent District Council to calculate the contributions to be sought. Contributions to affordable housing will be sought in accordance with the approach set out in policy x and Open Space as per policy x.

In relation to the protection of the waterways and navigation, contributions will be sought from development, where appropriate, towards dredging. The dredging and proper disposal of sediment from the bed of the rivers and broads is the largest cost in the maintenance of the navigation area. The required level of contribution will be calculated on a site-by-site basis using the Authority's latest available dredging costings. Additionally, the Authority will seek an administrative contribution to cover the cost of arranging and monitoring developer obligations.

Any monies falling due as a result of planning obligations will be held by the Authority until agreement is reached with the providing body for the relevant facilities to be provided. In the event that agreement is not reached or the infrastructure is not constructed, those moneys will be returned to the developer after a period of 10 years. Maintenance sums will be sought for the first ten years of the life of a facility where relevant (15 years for highways maintenance in relation to bridges or other highway structures, for lifetime replacement – 120 years).

### The Broads Authority and CIL

The Community Infrastructure Levy (CIL) is a planning charge, introduced by the Planning Act 2008. It is a discretionary charge which can be used as a tool for local authorities in England and Wales to help deliver infrastructure to support the development of their area. The Broads Authority has not introduced a CIL, due to the low levels of development, difficulties involved in identifying specific Broads' infrastructure and the costs of collecting and monitoring CIL when balanced against the sums likely to be generated.

### Alternative Options

#### Comments received as part of the Issues and Options:

**Suffolk County Council:** The Broads Authority may wish to explore the potential for contributions towards heritage presentation and archiving. No objections to rolling forward DP30 as it refers to pooling with resources from other authorities to fund wider community infrastructure projects and historically this seems to have worked well in securing funding for infrastructure projects. Much of the infrastructure required to support communities and their growth in the Broads will be located in the adjoining planning authority areas, such as schools or transport infrastructure. Our priorities would be for infrastructure that supports growth both in the Broads and South Norfolk – for example addressing any school capacity issues which include catchment in the Broads or road junction improvements along the A146.

**Environment Agency:** We would recommend that discussions should be held with partner organisations who are seeking to deliver actions across the area. This might include for example us and the Broadland Catchment Partnership. Through a coordinated approach, there may be opportunities for the measures required to make the development acceptable to also make a contribution to those actions.

**Inland Waterways Association:** S106 and CIL do have a role to play in building and maintaining a community rather than just a group of houses. IWA believes these should be used in part to provide and maintain moorings and staithe, including provision of power and similar services. This should also include commuted sums for maintenance, unless the BA considers that these would not be eligible. These would form part of the 'greater good' facilities which normally come with roads, footpaths and similar which in the Broads are in part replaced by water navigations.

**Norfolk County Council:** welcomes the inclusion of the references to developer contributions from new development and the different mechanisms which will be used to secure funding. Public Health welcomes the inclusion of provision for health infrastructure under the priorities for developer contributions and would advise consultation with healthcare commissioners (Clinical Commissioning Groups and NHS England) in this regard.

**RSPB:** The Authority needs to ensure that it receives sufficient funds from development to manage pressures on Natura 2000 and other designated sites. This includes monitoring the level of increased recreational use against predicted levels, monitoring to assess adverse impacts on the ecology of the sites and their designated features, and, if it becomes apparent that an LSE may occur on a Natura 2000 site, funding appropriate visitor control and management actions in order to prevent that LSE from occurring.

Suggestions on how to spend Developer Contributions (from the public):

<b>Parish</b>	<b>Suggestions from the public</b>
Potter Heigham	Footpaths along Weavers Way, enhancing the surface of the footpath. Roundabout at the Post Office. Enhancement works within the area of Potter Heigham Bridge.
Gillingham/Beccles	Improving Beccles Quay Maintaining the flat valves in the Beccles Quay area
Chedgrave	Public access - the restoration of Hardley Flood footpath. Public launching facilities Enhancing wildlife sites
Ludham	Refuse service More parking Better car access Better bus service.
Beccles	Geldeston locks river bank moorings Schools Car parking
Thorpe	Affordable housing Moorings in and around villages
South Walsham	Transport e.g. buses Medical facilities Moorings
Somerton	Village Halls Safety issues - paths alongside roads especially for local school children. Environmental improvements in general.
Wroxham	Toilets Improve the moorings at Gt Yarmouth, add moorings that are less dangerous
Claxton	Slipways Boardwalks/footpaths

Sustainability Appraisal Summary

Evidence used to inform this section

Monitoring Indicators

Policy x: Energy demand and performance

Development is required to take a 'fabric first' approach and reduce overall energy demand through its design, layout and orientation. Then proposals are also required to maximise the use of energy efficiency and energy conservation measures.

Developments of over 10 residential dwellings are required to meet at least 10% of their predicted energy requirements using the following hierarchy:

- a) Reduce the overall energy demand in the first place, then
- b) Energy efficient and conservation measures, then
- c) Decentralised and renewable or low-carbon sources for any residual amount.

Developments of non-housing development over 1,000m<sup>2</sup> are encouraged to achieve at least the BREEAM 'Very Good' standard or equivalent and are required to provide at least 10% of their predicted energy requirements from decentralised and renewable or low-carbon sources.

Planning permission and, where relevant, listed building consent will be granted for works required to improve the energy performance of heritage assets where it complies with other relevant policies and can be clearly demonstrated that this is consistent with all of the following:

- a) The heritage asset's character and appearance,
- b) The heritage asset's special architectural or historic interest,
- c) The long-term conservation of the built fabric; and
- d) The wider setting of the heritage asset.

An energy statement which demonstrates the approach is required to accompany planning applications.

### Reasoned Justification

In July 2015, the Government announced in 'Fixing the Foundations: Creating a more prosperous nation'<sup>1</sup> that *'The government does not intend to proceed with the zero carbon Allowable Solutions carbon offsetting scheme, or the proposed 2016 increase in on-site energy efficiency standards, but will keep energy efficiency standards under review, recognising that existing measures to increase energy efficiency of new buildings should be allowed time to become established'*. Linked to this, the Deregulation Act 2015<sup>2</sup> amends the Planning and Energy Act 2008<sup>3</sup> to say that Local Plans cannot set requirements that go beyond the building regulations.

<sup>1</sup>

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/443897/Productivity\\_Plan\\_print.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/443897/Productivity_Plan_print.pdf)

<sup>2</sup> [http://www.legislation.gov.uk/ukpga/2015/20/pdfs/ukpga\\_20150020\\_en.pdf](http://www.legislation.gov.uk/ukpga/2015/20/pdfs/ukpga_20150020_en.pdf)

<sup>3</sup> [http://www.legislation.gov.uk/ukpga/2008/21/pdfs/ukpga\\_20080021\\_en.pdf](http://www.legislation.gov.uk/ukpga/2008/21/pdfs/ukpga_20080021_en.pdf)

However, there is still the potential for Local Plans to ensure that buildings are designed as sustainably as possible and to require that a reasonable proportion of energy demand is met from renewable or low carbon solutions.

The Climate Change Act legislates for a 34% reduction in greenhouse gas emissions against 1990 levels by 2020, and an 80% reduction by 2050. The incorporation of renewable energy generation technologies and energy efficiency measures into the design of new development can make a significant contribution to achieving these targets.

The Authority currently has a policy on energy efficiency in new buildings. The current Development Management Policy DP7 refers to 10% of a development's predicted energy requirements being delivered from decentralised, renewable or low carbon resources for major developments and this is carried forward. However, experience gained whilst working with the promoters of two large-scale sites in the Broads (Pegasus in Waveney and Ditchingham Maltings in South Norfolk) indicates that it is preferable to take a Fabric First approach. That is to say that the development is designed to reduce energy demand in the first place, then use energy efficient improvements and finally to use renewable energy technologies where appropriate.

On-site provision will normally be the preferred mechanism for renewable energy generation; however, off-site schemes will be permitted where it would result in the generation of a greater amount of energy or would have a lesser visual/environmental impact. Planning conditions and/or obligations will be used to ensure that the energy infrastructure comes on-line before the development is occupied.

Addressing climate change is also about making improvements to resource and energy efficiency. Building Research Establishment Environmental Assessment Method (BREEAM) building standards are nationally recognised levels which require building design and construction to address these challenging issues.

The retro-fit of historic buildings to enhance their energy efficiency has the potential to become an issue. The Authority will assess the impact of the adaptations taking due regard of the significance of the historic asset and the character, historic interest and integrity of those elements of the asset likely to be affected.

Further guidance on designing new development to minimise energy consumption is provided in the Broads Authority's Sustainability Guide<sup>4</sup>.

### Comments received as part of the Issues and Options:

**Historic England:** Energy Efficiency and Historic Buildings- Application of Part L of the Building Regulations to historically and traditionally constructed buildings  
<https://historicengland.org.uk/images-books/publications/energy-efficiency-historic-buildings-ptl/>.

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<sup>4</sup> <http://www.broads-authority.gov.uk/news-and-publications/publications-and-reports/planning-publications-and-reports>



It should be noted that listed buildings, buildings in conservation areas and scheduled monuments are exempted from the need to comply with energy efficiency requirements of the Regulations where compliance would unacceptably alter their character and appearance. Special considerations under Part L are also given to locally listed buildings, buildings of architectural and historic interest within registered parks and gardens and the curtilages of scheduled monuments, and buildings of traditional construction with permeable fabric that both absorbs and readily allows the evaporation of moisture. These considerations need to be taken into account when considering how best to mitigate against climate change in historic buildings and areas. Therefore, any policy coming forward should take into account its effect on such buildings and areas.

DRAFT

Policy x - Designing Places for Healthy Lives

Development proposals that support healthy choices, healthy behaviours and reduce health inequalities will be supported.

All new housing, commercial and recreational development) will be expected to demonstrate that appropriate steps have been taken through design, construction and implementation to avoid or mitigate potential negative effects on the health of the population.

New or replacement homes and non-residential development of less than 1,000m<sup>2</sup> are required to explain how their development facilitates enhanced health and well-being through the provision of conditions supportive of good physical and mental health.

Developments of more than 10 dwellings or 1,000m<sup>2</sup> non-residential development are required to complete and submit alongside planning applications the Norfolk designing places for healthy lives checklist.

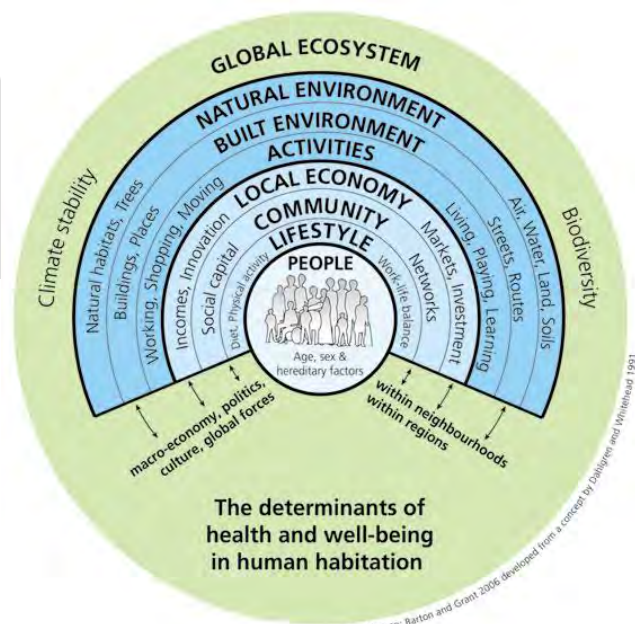
Reasoned Justification

The link between planning and health has been long established. The built and natural environments are major determinants of health and wellbeing. The Health Map shows how individual determinants including a person’s age, sex and hereditary factors are nested within the wider determinants of health which include lifestyle factors, social and community influences, living and working conditions and general socio-economic cultural and environmental conditions.

The Government are clear in the role of health and wellbeing in planning stating that *‘local planning authorities should ensure that health and wellbeing, and health infrastructure are considered in local and neighbourhood plans and in planning decision making’* (NPPG).

There are six themes which planning applications for new or replacement homes are expected to address which provide *‘conditions supportive of good physical and mental health’*. Developments of ten dwellings or fewer are required to produce a statement saying how their proposal addresses these themes:

- i. Partnership and inclusion, including engagement and integration.
- ii. Vibrant neighbourhoods, including access to social infrastructure, access to local food shops and the public realm.
- iii. Active lifestyles, including access to green space and active travel.



- iv. Healthy environment, including construction, equality, noise, open space, renewable energy, biodiversity, local food growing, flood risk and overheating.
- v. Healthy housing, including accessible housing, healthy living, and housing mix and affordability.
- vi. Economic activity, including local employment and healthy workspaces.

The Norfolk checklist is to be completed for development of more than ten dwellings. It has been developed to provide a practical tool to assist developers and agents in preparing development proposals: to assist local planning authorities in planning policy-making and as part of planning application process; and to assist public health service when considering health and well-being impact of development plans and planning application. The Norfolk Checklist seeks to answer two questions:

- 1) What are the health effects of the urban development policy, plan or proposal?
- 2) How can the policy, plan or proposal be improved to provide better health outcomes?

Whilst the checklist is used by Norfolk Local Planning authorities and has been produced by the Norfolk Public Health Team, it also applies to proposals within the Waveney/Suffolk part of the Broads Authority Executive Area.

It is important to note that other sections of this Preferred Options document are all relevant to a healthy community. For example tranquillity, amenity, sport and recreation, pollution and housing need all have an impact on an individual's health and wellbeing.

### Alternative Options:

#### Comments

##### **South Norfolk Council**

Issue 33: How can we design places for healthy lives? The Health and Wellbeing agenda is currently being heavily promoted and should be encouraged through planning policies. Is there any issue with the Broads having a list as set out in option 2 and making it more onerous than South Norfolk Council requirements? If the idea of a checklist was to be pursued we would be keen to work with the Broads Authority to ensure there are no adverse impacts from a South Norfolk Council perspective.

Q. Do you have any thoughts on our position on this matter (health facilities)? Some Broads communities depend on facilities within the South Norfolk Council area (e.g. Loddon surgery etc.) and should this be reflected in the Broads Local Plan. We will need to work together with the Broads Authority under the Duty to Cooperate to ensure that the distribution of growth across the Greater Norwich area, including the Broads Authority does not have an adverse impact on the provision of health facilities.

##### **Inland Waterways Association**

How can we design places for healthy lives? Option 2 providing a checklist for design, ideally one which is common across the UK. Work by NHS and others seems likely to produce the basis of such a checklist at some point in the future, and until then there is little to be gained by trying to create one without any evidence.

**Norfolk County Council**

Public Health

Response to question 2 – Public Health would like to see reference to the Broads as a health promoting environment in this section.

Health and Wellbeing (Section 27)

Public Health welcomes the consideration to the health status and well-being of the residents of the Broads Authority area and the inclusion of information on the wider determinants of health, such as the index of multiple deprivation in the opening statements. Public Health also welcome the inclusion of well-being within the three key themes and the attention to health and wellbeing in section 27.

In section 7 it is felt that there is an opportunity to promote the health and well-being benefits of the Broads and the connection to the natural environment, as evidenced by Newton (2007)

Wellbeing and the Natural Environment, and by the RSPB report 'Natural Thinking (Bird 2007).

Response to Issue 33 – Public Health

Strongly support option two: designing places for healthy lives checklist. Norfolk County Council Public Health in collaboration with planning colleagues are continuing work on the shared engagement protocol and checklist for designing places for healthy lives. The commitment under 23.8, health assessment of the local plan, reflects this draft protocol.

Reference is made under 23.7 to the Norfolk 'HUDU' model. The draft shared engagement protocol includes a Norfolk model for estimating health infrastructure need.

Sustainability Appraisal Summary

Evidence used to inform this section

Monitoring Indicators

### Strategic Policy x Heritage assets

Key buildings, structures and features which contribute to the Broads' character and distinctiveness will be protected from inappropriate development or change.

Proposals which maintain, enhance and provide better understanding of the significance of the overall cultural heritage value of the Broads will be sought through:

- i) Supporting the repair and appropriate re-use of buildings and structures of historic, architectural, cultural or landscape value where the repair and/or use would not be detrimental to the character, appearance or integrity of the building or structure, its context or setting; and
- ii) Requiring the highest standard of design which will protect existing assets and add to the future cultural heritage value of the locality.

The archaeology of the Broads will be better understood, protected and enhanced by:

- iii) Protecting archaeology from inappropriate development or change; and
- iv) Ensuring proposals take account of the area's status as having 'exceptional waterlogged heritage'

Appropriate development proposals that bring into use or remove an asset from the heritage at risk register will be supported.

### Reasoned Justification

The historic environment makes a significant contribution to sustainable communities through sustaining economic vitality, providing social and cultural links to the past and ensuring a dynamic and varied built environment.

The Broads has a rich and varied historic environment recognised by 15 Scheduled Monuments, 25 Conservation Areas and 272 listed buildings (which collectively constitute the Designated Heritage Assets of the Broads), together with over 1000 sites or structures worthy of inclusion on the Historic Environment Record. In addition, there are many other landmark buildings, structures, historic landscape or landscape features that contribute to local character and heritage but are not statutorily protected and instead will be assessed for inclusion on a local list of assets, depending upon their significance. The Broads also contains a wealth of important archaeological sites, many of which owe their preservation to waterlogged conditions that enable the conservation of organic material; this material source also requires consideration as a significant heritage asset. Indeed, much of the landscape of the Broads is a product of historic and cultural practices and is of itself an historic landscape, providing the context for individual sites of archaeological interest.

Policies aim to set new standards to complement the current character and to create buildings that will be valued in future. The design quality of new structures in the Broads will potentially impact on identified features; by requiring a high quality of design, it is hoped that the cultural heritage value of the area will be enhanced.

Heritage assets are defined by the NPPF as '*a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing)*'. The following provides more detail:

- Designated heritage asset. The NPPF defines these as: A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.

- Non Designated Heritage Assets. The NPPG says '*local planning authorities may identify non-designated heritage assets. These are buildings, monuments, sites, places, areas or landscapes identified as having a degree of significance meriting consideration in planning decisions but which are not formally designated heritage assets*'.

Some non-designated heritage assets can be found on the Authority's Local List which identifies buildings and structures that significantly contribute to the local character but may not meet the strict criteria for nationally listed assets.

With regards to archaeology, there will be archaeological interest in a heritage asset if it holds, or potentially may hold, evidence of past human activity worthy of expert investigation at some point. Heritage assets with archaeological interest are the primary source of evidence about the substance and evolution of places, and of the people and cultures that made them.

Heritage at Risk is a collective term applied to 'designated' heritage assets that are at risk as a result of neglect, decay or inappropriate development, or are vulnerable to becoming so. Whilst the Authority generally supports improvements to the at risk assets that will enable them to be taken off the register, changes must be in conformity with the other adopted policies of the Local Plan as well as with national planning policies.

Alternative Options

Sustainability Appraisal Summary

Evidence used to inform this section

Monitoring Indicators

## Policy x Historic Environment

*\*Planning Committee please note that this is based on DP5\**

New development will be expected to protect, preserve or enhance the fabric and setting of historic, cultural and architectural assets that give the Broads its distinctive character.

## a. Designated heritage assets

Development that would affect a Designated Heritage Asset or its setting will be considered in the context of national policy having regard to the significance of the asset.

## b. Non-designated heritage assets

In assessing development proposals that would directly or indirectly affect a non-designated heritage asset a balanced judgement will be made between:

- i) Scale of any harm or loss
- ii) Significance of the heritage asset
- iii) Public benefits

## c. Archaeology

Sites of archaeological interest and their settings will be protected, enhanced and preserved; development which has an unacceptable impact on a site of archaeological interest will not be permitted.

Where it is considered appropriate in cases where development coincides with the location of a known or suspected archaeological interest, an archaeological field evaluation will be required.

There will be a presumption in favour of preservation in-situ for Scheduled Monuments and other archaeological heritage assets of significance.

Development proposals that will result in unavoidable harm to, or loss of, an archaeological heritage asset's significance, will only be permitted where there is a clear justification in terms of public benefits arising from the development which outweigh that harm and, in the case of substantial harm/loss, also meet the following requirements:

- i) there is no less harmful viable option; and
- ii) the amount of harm has been reduced to the minimum possible.
- iii) satisfactory provision is made for the evaluation, excavation, recording and interpretation of the remains before the commencement of development.

## d. The unknowns

Consideration will be given to the protection of heritage assets which have not been previously identified or designated but which are subsequently identified through the process of decision making, or during development. Any such heritage assets, including artefacts, building elements or historical associations which would increase the significance of sites and/or adjoining or containing buildings, will be assessed for their potential local heritage significance before development proceeds.

Where heritage assets newly identified through this process are demonstrated by evidence and independent assessment to have more than local (i.e. national or international) significance, there will be a presumption in favour of their retention, protection and enhancement.

Where heritage assets newly identified through this process are demonstrated to have local significance, development proposals affecting them will be determined in accordance with the criteria for existing locally identified heritage assets as set out in this policy. Any assessment of local significance should be made in accordance with the criteria set out in the reasoned justification to this policy.

e. Linking to the past

Where the Authority considers it appropriate, proposals will be required to recognise the importance of the historic environment through heritage interpretation measures.

Reasoned Justification

The Authority recognises the importance of protecting and preserving heritage and cultural assets, but new development may in some cases be appropriate to enable historic buildings and areas to react to the changing circumstances. Development proposals will, however, be judged against their effect on the significance of the asset and its setting. Policy xx should be read in conjunction with the policy principles and information set out in the NPPG.

Development that would affect a Heritage Asset (designated or non-designated), including a Listed Building, Conservation Area, Registered Park and Garden or Scheduled Monument or its setting must be accompanied by a Heritage Statement. This statement should provide a schedule of works and analyse the impact of the proposal on the form, fabric and setting of the asset and any features of historic or architectural interest, together with an assessment of the significance of the heritage asset to be affected. The statement should provide justification for the proposed works and their impact on the special character of the asset. When a Design and Access Statement is required, the Heritage Statement can form part of this.

In assessing the effect of development proposals on a Heritage Asset, consideration will be given to the significance of the asset and its setting, its intrinsic historic interest and rarity, the contribution it makes to the character of the area and this will be weighed against the social and economic benefits of the proposal. Development that would cause less than substantial harm to the significance of a Listed Building, Conservation Area or Scheduled Monument will only be permitted where the harm is outweighed by substantial public benefits of the proposal.. ('Significance' can be defined as the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting<sup>1</sup>).

Non-designated heritage assets include those on the Historic Environment record of Norfolk and Suffolk County Councils as well as the Broads Local List. There are also assets not on either of these lists that we know, reflecting local knowledge and expertise of staff, have potential historic importance. Indeed the Authority assesses one topic area at a time to understand potential for other features or buildings to form part of the Local List. At the time of writing, the Authority had assessed the mills and waterside chalets and is intending to assess boatyards next.

Archaeological remains are a finite resource, often highly fragile and vulnerable to damage and destruction. Compared to other wetland, or former wetland, and areas of the East of England the archaeology of the Broads is comparatively under-investigated. Additionally, the lakes, dykes and in some cases the rivers in the Broads area are themselves archaeological features. It is highly likely that undiscovered archaeology exists owing to the largely

<sup>1</sup> Further guidance can be found in the NPPG: <http://planningguidance.communities.gov.uk/blog/guidance/conserving-and-enhancing-the-historic-environment/why-is-significance-important-in-decision-taking/>



undeveloped nature of the area. The Broads is a low-lying wetland area where the landscape has been shaped over centuries by a combination of physical, ecological, cultural and historic factors.

The Broads contains important archaeological sites, many of which owe their preservation to water logged conditions that promote conservation of organic material. Large areas of the grazing marshes have never been investigated or developed and there is the likelihood that they represent a reserve of significant archaeological artefacts and interest, given the rich archaeology in the immediate vicinity. The great importance of the palaeo-environmental remains likely to be preserved in the wetland environment is recognised.

Historic England has identified the Broads as an area of *exceptional waterlogged heritage*. Fundamentally, because of the soil conditions in the Broads, there is great potential for archaeology to be well preserved.

Development proposals should be located and designed to avoid damage to archaeological remains and should enable these remains to be preserved in situ. Norfolk Historic Environment Service and Suffolk County Council Archaeology Service will be consulted on development proposals with the potential to have an adverse impact on a site of known or suspected archaeological interest. When a proposal has a potential adverse effect on a site of known or suspected archaeological interest, the development must be accompanied by archaeological field evaluations that detail the impact the proposal would have on these remains. In these cases, preservation by record secured through an agreed Written Scheme of Archaeological Investigation will be required. All archaeological works will be required to be undertaken to proper professional standards, as defined by the Chartered Institute for Archaeologists (CIfA).

Where development can take place and still preserve important features in situ, planning conditions will be sought to secure the implementation of effective management plans that ensure the continued protection of those features.

Heritage assets also include currently undesignated and unidentified assets which may be identified as being of significance during pre-application discussions, the process of decision making or may be revealed in the course of development. These may include assets of established community value and assets which contribute towards giving areas their sense of place and neighbourhood feel.

As part of the planning application process, consideration should be given to whether a heritage asset whose significance is not recognised or appreciated currently but becomes apparent through the application process merits formal protection. Where, following assessment, such an asset is judged to be worthy of protection, the principle to be followed is that any proposals resulting in harm to or loss of significance will be assessed according to the degree of significance the asset is agreed to possess, in the same way as would apply if it had already been recognised.

An independent assessment of heritage significance would normally be undertaken by Historic England (or any equivalent successor body that becomes responsible for heritage asset protection during the currency of this plan). Where the significance of newly discovered assets is adjudged not to be so great as to merit national protection, there may be a case for some form of local recognition, typically by including the asset, or the building or structure in which it has been discovered or of which it forms part, on the Authority's Local List. Assessments of local significance should use the criteria currently used to assess locally identified heritage assets and take account of the views of the community, local and national heritage bodies and conservation and design professionals in reaching a balanced judgement on the significance of the asset. The Local Heritage Listing guide from Historic England is also of relevance<sup>2</sup>. The local criteria are:

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<sup>2</sup> <https://historicengland.org.uk/images-books/publications/local-heritage-listing-advice-note-7/>



- a. Age & integrity
- b. Historic interest – historic association (people or events), social importance, ‘lost ‘ lifestyle (e.g. drainage pumps & marsh cottage settlements)
- c. Architectural interest or merit
- d. Technological innovation or excellence
- e. Visual/scenic/artistic or group value

The Authority considers that appropriate interpretation of the historic and cultural environment is an important aspect to development or change in the area. Such interpretation could range from street names that reflect the heritage of the site, retention of a particular feature, art or interpretation boards. The aim being to provide the link to the past and ensure that visitors and the community are aware of what the site was previously used for or what happened on the site.

### Alternative Options

### Sustainability Appraisal Summary

### Evidence used to inform this section

## Policy x Re-use of Historic Buildings

*\*Planning Committee please note that this is based on DP6\**

The re-use, conversion or change of use of a building or structure which is a heritage asset (designated and-or non-designated) will only be permitted where:

- a) ~~A structural survey demonstrates that the conversion, re-use or change of use can be undertaken without extensive building works, alterations or extensions that would lead to substantial harm to or loss of the asset's significance. In the case of non-designated heritage assets, the public benefits of the proposal will be weighed against the harm or loss; A structural survey demonstrates that the conversion or change of use can be undertaken without extensive building works, alterations or extensions that would lead to substantial harm to or total loss of significance on the structure's character and appearance;~~
- b) a) The proposal can be achieved in a way that preserves the structure's historic, cultural and architectural features and its character;
- c) b) The nature, scale and intensity of the proposed use are compatible with, and would not prejudice, surrounding uses or the character of the locality; and
- d) c) It would not adversely affect protected species or habitat.

Wherever possible, the building or structure should remain in the use for which it was originally designed. Where this is not possible, employment, recreation or tourism uses (including holiday accommodation for short stay occupation on a rented basis) will be the next preference.

Conversion to residential uses, where the building would be used as a second home or for the main residence of the occupiers, will only be permitted where employment, recreation or tourism uses of the building are shown to be unviable.

#### Reasoned Justification

The Broads contains a wealth of Designated (listed buildings, Conservation Areas, Scheduled Monuments and registered parks and gardens) and non-Designated Heritage Assets, making a significant contribution to the special character of the area. The Authority recognises that, in the majority of instances, the most effective way of protecting and preserving these buildings will be to retain them in their original use. However, where these buildings can no longer sustain the use for which they were originally designed, finding an appropriate alternative use for the building often represents the best way of protecting the building. The sensitive re-use of historic buildings is also good sustainable practice, both in terms of making the optimum use of the embodied energy of the building and also in relation to maintaining a local skill base in the restoration of historic buildings and traditional construction techniques.

Nevertheless, when considering proposals for the re-use of historic buildings, close attention must be paid to the design of any such conversion to ensure that it is appropriate for the character and appearance of the building and would not adversely affect its context or setting. In particular, the loss of the primary fabric of the building and internal or external features that contribute to its character can devalue its significance. Some buildings will therefore not be suitable for re-use. Accordingly, development proposals should be accompanied by a structural survey undertaken by a suitably qualified independent Structural Engineer to assist determination of whether the building is capable of conversion without works that would have a significant detrimental effect on its character. In accordance with Policy x, a Heritage Statement (included within the Design and Access Statement where this is required) should also be submitted to provide a schedule of the proposed works, analyse the impact of the proposal on any important features of historic interest, and provide justification for the proposal. Policy x, including information requirements for, and the determination of such applications should be read in conjunction with the NPPG. Applicants are encouraged to discuss their proposals at an early stage with appropriate officers of the Authority and, when appropriate, with Historic England.

Where it is not possible for the building or structure to remain in the use for which it was originally designed, preference will be given to re-using historic buildings for alternative employment, leisure or tourism uses that will have social and economic benefits for the Broads. Conversion of an historic building to a residential use can often have an adverse impact on its character, given the scale and nature of work required to meet the expectations for a permanent residence. For this reason, such residential conversions tend to be considered as a last resort. Applications to convert a historic building to residential use will be expected to be accompanied by a report undertaken by an independent Chartered Surveyor that demonstrates why economic, leisure and tourism uses would not be suitable or viable as a result of inherent issues with the building. Issues relating to the personal circumstances of the applicant or as a result of a price paid for the building will not be taken into consideration. Details should be provided of conversion costs and the estimated yield of the commercial uses, and evidence provided on the efforts that have been made to secure economic, leisure and tourism re-use during the previous 12-month period.

Significance is discussed in the reasoned justification to policy x on the Historic Environment.

Criterion C relates to amenity and tranquillity impacts of proposals. Please refer to policies x and x that cover these topic areas.

Applicants should be aware that historic buildings, particularly those in rural areas, have the potential to provide important breeding and resting places for a number of species protected under a range of legislative provisions, including bats, barn owls or other nesting birds. If the presence of a protected species is suspected, the applicant will normally be required to submit a survey undertaken by a ~~competent~~ suitably qualified ecologist to establish whether the species is present, whether the development would harm the species and what measures are proposed to avoid potential harm. There could be the requirement to provide compensatory features although such features should not impact adversely on the structure and also that they should not preclude appropriate development where it might bring a redundant asset or Building at Risk into use.

Alternative Options

Sustainability Appraisal Summary

Evidence used to inform this section

Monitoring Indicators

## Policy x: Drainage Mills

Main Map (NE, NW, & S), and various Inset Maps

*\*Planning Committee please note that this is based on XNS5\**

The area's heritage of traditional drainage mills, and drainage mill remains, will be conserved.

Proposals that will maintain, restore and, in appropriate cases re-use standing mills will be judged against the following criteria: historic significance, survival of historically significant fabric eg machinery, location, group value, fragility and vulnerability of structure.

Any works to mills will be assessed for impacts on heritage, water (such as resource, quality and flow) and biodiversity. Works will, if necessary, be required to be timed to ensure no disturbance to breeding or wintering birds.

## CONSTRAINTS &amp; FEATURES

Many of the mills are listed buildings, Grades II and II\*.

Some are in Conservation Areas.

Many of the mills are in SAC, SPA, Ramsar, CWS, etc.

Most of the mills are at high risk of flooding.

Reasoned Justification

Drainage mills are a defining feature of the historic landscape of the Broads and significantly contribute to the landscape scene of the Broads, viewed from the land and from water. The mills vary in size and design but all had the fundamental purpose of draining water from the land to enable the fields to be grazed and then latterly to be used for other agricultural uses.

Of the 74 standing mills in the Broads, approximately 50 are listed, the rest are locally listed. Approximately 30 structures are currently neglected and require active conservation of fabric. Change of use is often a solution to the problem of neglect and can result in repair work being implemented, funded and enable a structure to have a sustainable future going forwards. Work, however, which will outweigh the benefit of bringing a structure into use by the amount of harm caused to historic fabric cannot be justified.

Redundancy, exposure to elements and vulnerability to vandalism mean a number of the mills are recorded locally as being 'at risk' and this is why Halvergate Marshes Conservation Area is currently the only Conservation Area in the Broads that is at risk and is included on Historic England's Heritage at Risk Register.

The policy encourages restoration of standing mills. In cases where there are archaeological remains only, the relevant local and national policies will apply.

The mills are in varying conditions (according to the Drainage Mill Action Plan, Broads Authority). Hardley Mill for example has been restored and now has cap, sails and a full working mechanism. Black Mill has a temporary cap on to make it weather-tight and protect the internal mechanism. Stone's Mill in Freethorpe is rated as being very fragile, vulnerable and highly at risk due to lack of maintenance since it became redundant.

There is an action plan for the mills. This discusses improvements to each mill in the short, medium and long term. In the Short and medium, the changes aim to make the mill safe and prevent any further loss or damage to the

structure. The long term actions seek betterment such as restoring any missing elements such as masts. Owners of mills may refer to this Action Plan in developing proposals for repair, maintenance, restoration or re-use.

Due to their isolated location, usually in areas at risk of flooding as well as the extent of works required to restore some of the mills, proposals for restoration are not easy to develop and can be costly. The mills tend to be the largest and most obvious structures in the landscape which is very flat and open. The Broads Authority supports the restoration of the Mills or in some cases works which enable their neglect to be arrested subject to the historic interest of the structure not being compromised.

The Environment Agency highlights the potential need for a range of consents, and to avoid adverse impacts on fish, flooding and water flows.

The Authority is progressing its bid for Heritage Lottery Funds. A key aim of the project as a whole is to remove Halvergate Marshes Conservation Area from the Historic England “At Risk” register. Specific projects will include works to a number of Broads’ drainage mills, from weatherproofing and fabricating new caps and sails to halting their further decline as well as developing a model for future management and maintenance of Broads drainage mills. The Heritage Construction Skills Training project seeks to embed heritage skills training into existing construction skills curricula at colleges and provide opportunities for students to specialise in heritage construction skills and achieve industry-recognised standards and qualifications.



*Picture Hardley Mill<sup>3</sup>. This windmill<sup>4</sup> was capable of raising twelve tons of water per minute via a twelve foot high vertical shaft, five feet in diameter. The mill was built in 1874. It operated until around 1950 when it was tail winded and badly damaged. It was abandoned by the Internal Drainage Board and, like most other drainage windmills, replaced by an electric drainage pump.*

Many mills are intrinsically historically significant and contain machinery which can represent innovation or be the last example of technology surviving. Many are remote and located in groups which are of significant visual amenity to and epitomise the cultural landscape of the Broads. It is recognised however that some Mills are mainly of landscape value and are in particularly vulnerable or fragile condition and could potentially be lost to the Broads landscape. It is recognised that in some cases it may be acceptable to seek alternative uses for those Mills which are more accessible are of less historic and greater landscape importance and contain little or no significant machinery. In such cases re-use may be appropriate as long as the positive landscape contribution of such mills is retained and enhanced through their creative conservation.

### Alternative Options

#### Sustainability Appraisal Summary

#### Evidence used to inform this section

<sup>3</sup> [http://www.broads-society.org.uk/?page\\_id=2330](http://www.broads-society.org.uk/?page_id=2330)

<sup>4</sup> [http://www.hardley-windmill.org.uk/index\\_files/about.htm](http://www.hardley-windmill.org.uk/index_files/about.htm)

Monitoring Indicators



Heritage related comments received as part of the Issues and Options consultation:

### **Suffolk County Council**

A recommendation is that reference to the Norfolk and Suffolk Historic Environment Records should be added, as active databases of the archaeological resource.

Issue 8 Non-designated assets – SCC preferred option would be Option 3: to develop a stronger policy on undesignated heritage assets. This will give greater clarity to applicants.

A stronger policy CS5/DP5 (as above, Issue 8, Option 3) would mean that there is a policy to which a guide could relate.

The approach to archaeology. The approach as set out, which involves improved policies CS5/DP5 as well as a strategy led by Historic England, is one that we would support and encourage.

Interpretation and presentation of cultural heritage. An observation is that to overcome potential difficulties with option 2, Option 3, to develop guidance for cultural and heritage interpretation, could work best in combination with clauses in Policies CS5 and DP5 that require outreach and presentation (as proportionate to significance/impacts of development where related to planning). This might give greater clarity to developers. However, as the majority of the Broads area is in Norfolk, we would encourage further discussion with NCC on this issue.

### **South Norfolk Council**

Issue 8: How do we give further weight to the Local List and undesignated heritage assets (that we know about and those we do not know about)? South Norfolk Council would support Option 3 (A stronger policy on undesignated heritage assets) on the basis that this would strengthen existing policy and align better with the NPPF.

South Norfolk Council would support the improvement of existing policies to reflect the identification of the Broads as an area of exceptional waterlogged heritage.

### **Historic England**

We note that this section is primarily about the historic environment, although wider heritage issues are contained within it. As before, consistency with the NPPF in respect of the terms "historic environment" and "heritage assets" would improve clarity. If you wish to keep elements of the cultural aspects of the Broads in this section in the next iteration, we would suggest renaming the section "Historic Environment and Cultural Heritage", however, we recommend that the cultural elements are separated from the historic environment and that this chapter is renamed "historic environment".

We would recommend this specific textual change: "The Broads has a rich and varied historic environment recognised by the statutory..." We would recommend deleting the word "landmark" from the second paragraph as not all buildings, structures, historic landscapes or features that contribute to local character will be landmarks.

We would welcome development of a policy on the Local List and undesignated heritage assets given the significance and uniqueness of the Broads and the vulnerability to various types of heritage assets from a variety of factors as outlined in the issues and options consultation.

We would recommend this textual amendment: "drainage mills are a defining feature of the historic landscape of the Broads...." We would welcome the development of a policy on drainage mills in principle, however, we note that these buildings and their locations pose particular difficulties and that the options suggested in the consultation document all have significant issues attached. We would recommend that further work and discussion, following the consultation, is undertaken to see if a realistic local policy is achievable.

We welcome the recognition of the Broads as an area of exceptional waterlogged heritage.

In addition to the documents already referred to, we would also direct you to:

HE Advice Note 1- conservation area designation, appraisal and management: <https://historicengland.org.uk/images-books/publications/conservation-area-designation-appraisal-management-advice-note-1/>

HE Advice Note 2- making changes to heritage assets: <https://historicengland.org.uk/images-books/publications/making-changes-heritage-assets-advice-note-2/>

HE Advice Note 3- site allocations in local plans: <https://historicengland.org.uk/images-books/publications/historic-environment-and-site-allocations-in-local-plans/>

HE Advice Note 4- tall buildings: <https://historicengland.org.uk/images-books/publications/tall-buildings-advice-note-4/>

HE Advice Note 5- setting up a listed building heritage partnership agreement:

<https://historicengland.org.uk/images-books/publications/eh-good-practice-advice-note-drawing-up-listed-building-heritage-partnership-agreement/>

HE Advice Note 6- drawing up a local listed building consent order: <https://historicengland.org.uk/images-books/publications/eh-good-practice-advice-note-drawing-up-local-listed-building-consent-order>

### **Inland Waterways Association**

The introduction mentions many of the Broads heritage assets but none relating to those around boats and navigation- a significant omission given how many there are, and how they impact the landscape. How do we give further weight to the Local List and undesignated heritage assets

Option 3 a stronger policy to help manage changes to undesignated assets is needed.

On drainage mills, Option 2 an additional generic policy on reuse of historic and heritage assets will improve the focus on how these can be kept or brought into useful existence, and demonstrate a more flexible response to innovative ideas and good design. This would also avoid the cost and 'big brother' approach of listing which might put people off investing.

Broads as an area of exceptional waterlogged heritage: This proposal by Historic England seems an unhelpful 'blunderbuss' approach to anyone who wants to conduct any development. Simply saying the whole area is involved merely means increased costs will be incurred by everyone, often unnecessarily. A more focused approach is needed, to help identify smaller areas or sites which have a high likelihood of needing investigation or protection. How can the Local Plan address interpretation of the historic environment and culture in the Broads? Option 2 using a policy or criteria relating to interpretation seems a low key but useful route to follow.

### **River Thurne Tenants Association**

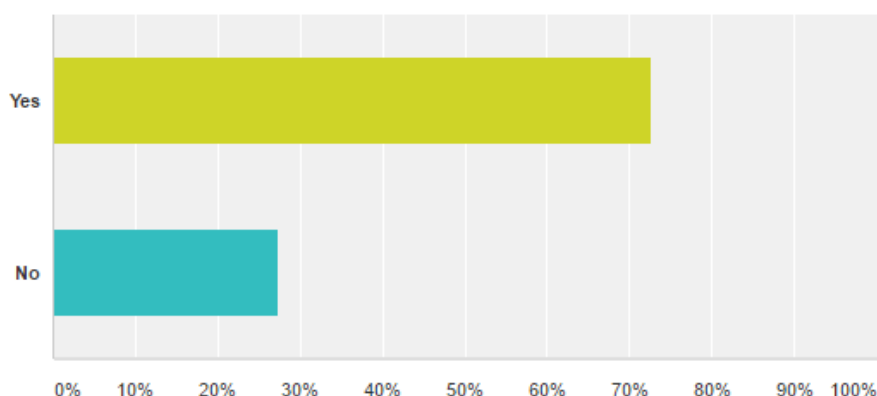
Do you think linking to the past use of a site is important? YES

Why do you think this?

The merits of sites vary from area to area, and the previous uses that they had. The Broads Authority could develop a heritage trail around redundant Broads sites with suitable signage or interpretation to pinpoint the former use of these sites. Where, for instance, can you still find a working traditional Staithe?

### **Survey Monkey responses: Do you think linking to the past is important?**

Answered: 33 Skipped: 8



### **Why do you think this?**

- Historical references are a good way of educating people to past times
- We need a strong policy to protect heritage, historical and cultural sites within the Broads. They are an important part of our past and need to be preserved.
- For tourist reasons.
- Gives a tangible link to the past
- But depends on the historic use as to whether it is worth retaining.

- It depends how significant it was
- We should be aware of our history.
- Move on
- We don't live in the past. History is important but don't overemphasise this by holding things back.
- I don't think it is particularly interesting
- History needs to be discovered, we DONT need interpretation board, it is up to the individual to read up about a place.
- difficult to say overall
- As long as in simple form not over the top restrictions
- adds to the tourist attractiveness
- Evolution - like the nose on your face
- Subtlety is important with plaques and signs and so on
- The history of the Broads is very important and should be preserved and not lost.
- It is easy enough these days to do your own research online.
- Or try not to over develop in the first place
- Please spare us from more plaques & signs.
- If it is not preserved in some form part of the heritage of the Broads is lost forever.

**Policy X – Land Raising**

Schemes that intend to raise land are required to justify this approach as well as explaining what other options to address the issue that land raising seeks to resolve have been discounted and why.

Proposals that involve land raising will not be permitted if they have unacceptable adverse impacts on:

- flood risk on site and elsewhere;
- visual appearance and landscape character;
- existing habitats and mature trees; and
- archaeology.

The application needs to demonstrate how the difference in height between adjacent plots/land holdings will be satisfactorily designed.

**Reasoned Justification**

Land or buildings are often raised above the existing ground level, usually to reduce the risk of the site flooding (although results are not guaranteed). Dredgings or material imported or won on site (for example resulting from a new mooring basin) may be disposed on a site and the land raised. Such land management to maintain land levels is a historic practice in the Broads. However the impact of land-raising can have negative impacts:

- (i) It can serve to divert flood water onto neighbouring land, particularly in areas primarily affected by fluvial flooding.
- (ii) Land in the Broads area is often wet and of poor load bearing capacity. Surcharging of land with soil or other material may lead to the site sinking over a period of time.
- (iii) On sites which are in close proximity to each other, it affects the relationship of the site to surrounding plots, and to access roads. On waterside sites, the relationship to the river or broad is changed, often leading to the need for higher piling and quay heading, potentially affecting the visual amenity of views from the water.
- (iv) It can be damaging to ecology, geomorphology, trees and other vegetation on the site.
- (v) It can change the character of the landscape. Land raising can increase the height and prominence of new buildings.
- (vi) It can affect the ability to provide alternative flood storage capacity in the drainage compartment.
- (vii) Material being placed on top of other material can impact interrogation to understand archaeology and past human interaction with the environment.

Where land raising could be part of a scheme, applicants are required to explain what issue land raising seeks to resolve, which other options have been considered and the reasons for their being discounted as well as justifying the raising of land.

The disposal of excavated material policy is of relevance.

**Alternative Options**

**Comments received as part of the Issues and Options:**

**Environment Agency:** Land raising has the potential to increase flood risk, which would be contrary to national planning policy. Therefore, any such proposals would need to assess and manage this impact appropriately. Flood Defence Consent be required. Additionally, the disposal of material must be in accordance with the requirements of the Environmental Permitting Regulations 2010.

**Norfolk County Council:** Important to provide an adaptive approach which could respond to climate change and any other advances in knowledge or technology. The NPPF (Para. 61) requires planning policies to “...address the

connections between people and places and the integration of new development into the natural, built and historic environment”.

**RSPB** emphasise importance of protected sites

Sustainability Appraisal Summary

Evidence used to inform this section

Monitoring Indicators

DRAFT

## Policy x: Landscape

Development proposals which conserve and enhance the key landscape characteristics of the Broads and comply with other relevant policies, in particular, Policy xx (Design) will be permitted.

It should be clearly demonstrated that development proposals are informed by:

- the Broads Landscape Character Assessment (2012 and 2016 supplement); and
- appropriate site based investigations

The design, layout and scale of proposals should both conserve and enhance those landscape features which are worthy of retention and which contribute positively to landscape character including topography, vegetation, natural and other historically typical drainage systems and existing trees which typify the traditional characteristics of the area and safeguard the positive experiential and visual amenity qualities of the landscape.

Where proposals are within designated landscapes (including the AONB and historic park and gardens) they should be based on an understanding of the design principles of the landscape and should be complementary to it. This needs to be demonstrated as part of an application.

The restoration of landscapes where either natural or cultural heritage features of importance have been lost or degraded will be sought.

Development proposals that would have an unacceptable adverse impact on either the character of the immediate or the wider landscape or the special qualities of the Broads will not be permitted.

In exceptional circumstances, where the landscape, biodiversity, navigation, social or economic benefits of a proposal are considered to outweigh the loss of a feature, or the impact on landscape character or existing habitat, the development may be permitted subject to adequate compensatory measures being implemented. However, wherever possible the design and layout of the development should be configured to make provision for the retention, enhancement or restoration of these features.

### Reasoned Justification

Landscape means an area as perceived by people, whose character is the result of the action and interaction of natural and/or human factors (definition from the European Landscape Convention).

The Broads is a landscape greatly modified by people over time and it is of international historic and cultural significance. The quality and uniqueness of the landscape, both visually and historically, are central to the attractiveness, distinctiveness and diversity of the Broads. It has high economic and cultural value and is a major draw for visitors to the area. Accordingly, having been awarded status equivalent to a national park, the highest status of protection has been conferred upon the landscape and natural beauty of the Broads. While acknowledging this duty to protect the special landscape quality of the Broads, the Authority recognises the need for a 'living landscape', with development necessary to support local communities and the economy being permitted, subject to criteria to protect and enhance the essential qualities of the landscape.

Despite its distinctiveness, the landscape of the Broads is not homogeneous and there are areas better able to accommodate change than others. The Authority has undertaken a Landscape Character Assessment which identifies 31 distinctive local character areas. The key characteristics which combine to give a particular area its unique sense of place can be found, incorporating information on topography, land cover and important landscape features.

Where appropriate, development proposals will be expected to be accompanied by a landscape statement that assesses the impact of the proposal on the landscape and details the measures that will be implemented to mitigate any adverse impact. To ensure development proposals do not have a detrimental effect on the distinctive character, condition, features and sensitivities which include amenity and experiential qualities, of the landscape. The Landscape Character Assessment should be considered by applicants and will be used by the Authority to assess the impact of development proposals and the suitability of any proposed mitigation measures. The Broads BAP and County species and habitat action plans will also be used when assessing the appropriateness of landscaping schemes, together with the potential for enhancements for wet and dry woodlands, hedgerows and associated species.

The Broads is principally an open and low-lying environment. However, there are areas where trees and other natural features form essential features of the Broads landscape, providing vital habitats for a range of species as well as having potential historic/cultural significance in demonstrating traditional land management. Where a development would involve works that could affect any tree or landscape feature, detailed site plans showing the species, spread, roots and position of these features must be submitted alongside the proposal. This plan should be accompanied by an arboriculture assessment carried out in accordance with the relevant British Standard that explains which features, if any, will be removed or cut back, and how any of these features will be protected during the course of the development. Details of replacement trees or hedges, including measures for maintenance and aftercare should also be included.

### Alternative Options

Comments received as part of the Issues and Options:

**South Norfolk Council** would support the inclusion of a general landscape policy in the Broads Local Plan although it would be important for any such assessment to be consistent across Local Planning Authority boundaries.

### Sustainability Appraisal Summary

Evidence used to inform this section

Monitoring Indicators

Policy x Natural Environment

All development shall:

- a) Protect biodiversity value and minimise the fragmentation of habitats;
- b) Maximise opportunities for restoration and enhancement of natural habitats;
- c) Incorporate beneficial biodiversity and geological conservation features where appropriate; and
- d) Include green infrastructure where appropriate.

Proposals on previously developed/brownfield land may require surveys to determine if the site has open mosaic habitat on previously developed land<sup>1</sup>. If the assessment then concludes that the site is of high environmental value, the design of the scheme is required to protect and enhance these areas and/or design appropriate compensation and off site mitigation measures.

Development proposals where the principal objective is to restore or create new habitat will be supported.

Any proposal which would adversely impact a European site, or cause significant harm to a SSSI will not normally be granted permission. Development should firstly avoid, then mitigate and, as a last resort compensate for adverse impacts on biodiversity and geodiversity.

Where it is anticipated that a development could affect the integrity of a Special Protection Area (SPA), Special Area of Conservation (SAC) or Ramsar Site, either individually or cumulatively with other development, a Habitat Regulation Assessment under the Habitats Regulations, will be undertaken. If adverse impacts on the integrity of the site and its qualifying features are predicted, measures to mitigate for these effects will be implemented. If it is not possible to mitigate satisfactorily for adverse effects, the development will not be permitted. If there is no alternative solution, the consideration of imperative reasons of overriding public interest, despite a potentially negative effect on site integrity can be considered.

Development that may affect the special interest of a Site of Special Scientific Interest (SSSI) (which is not also subject to an international designation) or a National Nature Reserve will only be permitted in exceptional circumstances where:

- e) There is no significant harm to the features of the site
- f) The benefits of the development clearly outweigh the impact of the development on the features of the designated site and the contribution that the designated site makes to the network of habitats and/or geological features in England; and
- g) The detrimental impact of the proposal on biodiversity interest and/or geodiversity has been minimised through the use of all practicable prevention, mitigation and compensation measures.

Development that would have an adverse impact on a Local Nature Reserve, County Wildlife Site, a section 41 priority habitat identified under the Natural Environment and Rural Communities (NERC) Act 2006, or a local site of geodiversity, including peat soils, will only be permitted in exceptional circumstances, having regard to the international, national, regional and local importance of the site

<sup>1</sup> For more information go here

<https://www.buglife.org.uk/sites/default/files/Identifying%20open%20mosaic%20habitat.pdf> and here [http://jncc.defra.gov.uk/pdf/UKBAP\\_BAPHabitats-40-OMH-2010.pdf](http://jncc.defra.gov.uk/pdf/UKBAP_BAPHabitats-40-OMH-2010.pdf).



in terms of its contribution to biodiversity, scientific and educational interest, geodiversity, visual amenity and recreational value.

Development that would be likely to have an adverse impact on a legally Protected Species or Priority Species will only be permitted where mitigation measures are implemented to maintain the population level of the species at a favourable conservation status within its natural range. Habitat and species enhancement will be required... Where the proposed development would impact upon European Protected Species or habitats it must also be demonstrated that:

- h) The development is necessary for reasons of overriding public interest; and
- i) There are no satisfactory alternatives, in terms of the form of, or location for, the development, that would have a lesser impact on the species or habitats.

### Reasoned Justification

The Broads is a biodiversity resource of international importance, recognised by various national and international conservation designations. Despite these designations, the ecosystem of the Broads is under considerable pressure. Climate change, water quality, habitat fragmentation, non-native species and scrub encroachment all pose threats to biodiversity in the Broads, while demands for higher levels of food production, waste disposal, infrastructure and small-scale developments are also placing strains on the natural environment. As a result, the proportion of SSSIs considered to be in an 'unfavourable condition' (44.1%) is significantly above the national average.

### Protected sites and species

Protecting and enhancing the natural environment is a statutory purpose of the Broads Authority. The Authority also has a legal duty under the Natural Environment and Rural Communities Act 2006<sup>2</sup> and the Wildlife and Countryside Act 1981<sup>3</sup> to protect and enhance biodiversity. Development proposals will therefore be expected to consider the protection and enhancement of biodiversity from the outset. In particular, proposals should take opportunities for the restoration and enhancement of priority habitats and species identified in the Broads BAP and the Norfolk Ecological Network Mapping Report (under preparation at the time of writing) and incorporate appropriate beneficial biodiversity conservation features.

Sites of nature conservation value will be strongly protected from development that is likely to damage the features that provide their special value. A Habitat Regulation Assessment will be

<sup>2</sup> **Natural Environment and Rural Communities Act, 2006.** Section 40 places a duty on public authorities to conserve biodiversity - for the first time. This section states that (1) Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity, and (3) Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat. This places a duty on all Local Authorities to conserve wider biodiversity in addition to the statutory protection given to certain sites and species. Also Section 55 changes the situation regarding the Local Authority role and SSSI protection. Guidance for Local Authorities on Implementing the Biodiversity Duty has been produced by Defra. Section 41 refers to the list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity.

<sup>3</sup> The legislative provisions in Great Britain for the protection of wild animals are contained primarily in the **Wildlife and Countryside Act, 1981**, Sections 9-12, the wild animals which are protected are listed in Schedules 5-7 of the Act and the provisions for the granting of licenses and enforcement are set out in Sections 16-27. In England and Wales, enforcement provisions were extended and some amendments for protection made by the Countryside Rights of Access Act 2000 (CRoW act) Section 81 and Schedule 12.

required for all proposals that are likely to have an effect on a SPA, SAC or Ramsar site. Proposals will only be permitted if they do not adversely affect the integrity of the site. Development that may have a damaging or negative impact upon a SSSI, National Nature Reserve, Local Nature Reserve, habitat identified in the UK, Norfolk or Suffolk Biodiversity Action Plan or local site of geodiversity must be accompanied by a suitable environmental assessment that identifies the impact of the development on the site and proposes mitigation measures that would be incorporated to minimise any impact. Natural England must provide approval for any unconsented operations within SSSI and NNRS.

Where protected species are likely to occur, development proposals should be accompanied by a protected species survey undertaken by a competent and suitably qualified ecologist and submitted with an application. The survey should include an appraisal and appropriate survey evidence of the likelihood and level of presence of the protected species and provide sufficient information to assess the effects of the development on the species, together with any proposed prevention, mitigation or compensation measures. A key test will be whether the viability of the species or habitat would be maintained at this site for the foreseeable future. Where the species is protected under the Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations)<sup>4</sup> it will also be necessary to demonstrate that any harm to the species is justified by reasons of overriding public interest. This public interest may relate to public health, public safety, beneficial consequence of primary importance to the environment, or other reasons of a social or economic nature.

Where development is likely to have an adverse impact upon a species not protected by the Habitats Regulations, and in particular where that species is identified on the UK priority species list (section 41 of the Natural Environment and Rural Communities Act 2006), there will still be an expectation that the development proposal will be accompanied by an impact study commensurate with the scale of the impact and the importance of the species and that mitigation and compensation measures are considered under an appropriate decision making hierarchy.

The Authority has produced a Biodiversity Enhancements guide which will help applicants in providing beneficial biodiversity features <<link>>.

### Geodiversity

'Geodiversity' is the variety of rocks, fossils, minerals, landforms and soils, along with the natural processes that shape the landscape that forms the earth heritage resource. Although there are currently no designated Regionally Important Geological or Geomorphological Sites (RIGS) in the Broads, there is one SSSI designated for its geological interest, Bramerton Pits. Local geodiversity interest is 'Holocene peatland and marine alluvium giving rise to open water, fen and carr habitats; broads developed in former early Mediaeval peat diggings; rivers including lower reaches of Bure, Waveney and Yare and their tributaries including Ant, Chet and Thurne<sup>5</sup>.' New development has the potential to result in the loss of geodiversity, including the valuable biodiversity and carbon stores

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<sup>4</sup> These animal and plant species are listed on Annex IV of the **Habitat Directive**. The animals (not birds) are protected under Regulation 41 of the Habitats and Species Regulations 2010 and are listed on Schedule 2 of these Regulations; plants are protected under Regulation 45 of the Habitats and Species Regulations 2010 and are listed on Schedule 5. The European Protected Species Guidance note advises developers and planners of their responsibilities towards European Protected species.

<sup>5</sup> <https://sites.google.com/site/norfolkgeodiversity/action-ngap/3-protecting/protected/parks-nnrs>

supported by peat soils, through operations such as landfill, destruction of geomorphology (landform) and mineral extraction. However, there is also potential to enhance geodiversity by recording sediments exposed during development and by the retention of geological sections. The Authority will therefore ensure development is managed to protect this important asset.

Brownfield Sites Brownfield sites can be havens for wildlife, supporting some of the UK's most threatened species. Brownfield sites are any piece of land which has been altered by human activity. Brownfield Sites are now listed as a Priority Habitat in Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC Act) under the name of 'Open mosaic habitat on previously developed land'. These habitats can be extremely diverse, supporting a wide range of terrestrial and aquatic habitats.

The NPPF says:

111. *'Planning policies and decisions should encourage the effective use of land by re-using land that has been previously developed (brownfield land), provided that it is not of high environmental value.'*

The NPPG expands on this by saying:

*'This means that planning needs to take account of issues such as the biodiversity value which may be present on a brownfield site before decisions are taken.'*

The Wildlife and Countryside Link discuss what 'high environmental value' means:

*'A site should be considered of 'high environmental value' in biodiversity terms if:*

- *It contains priority habitat(s) listed under section 41 Natural Environment and Rural Communities Act 2006*
- *The site holds a nature conservation designation such as Site of Special Scientific Interest, or is defined as a Local Wildlife Site (or equivalent) in local planning policy.'*

The policy's requirement for a survey in relation to brownfield/previously developed land needs to be undertaken by a competent ecologist and submitted with an application. This is not about preventing development on brownfield land, but it is about ensuring development considers the potential habitat and taking this into consideration in its design and delivery. This is not at the expense of other habitats. This recognises that the majority of development in the Broads tends to occur on brownfield land.

### Planning conditions

Wherever a proposed development may have a detrimental impact upon a designated site or protected species, conditions and/or planning obligations will be used to ensure that appropriate mitigation measures are implemented.

### Alternative Options

Comments received as part of the Issues and Options:

**IWA:** It needs to be born in mind that providing off-site compensation is not always possible for small private developers.

**Natural England:** advise that the Plan should ensure protection and enhancement of biodiversity and geodiversity. Distinction should be made between the protected sites hierarchy of European (i.e. Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar sites), national (i.e. Sites of Special Scientific Interest (SSSIs)) and local (e.g. Local Wildlife Sites (LWS)) sites. The Plan should also make clear that any proposal which would adversely affect a European site, or cause significant harm to a SSSI will not normally be granted permission. Criteria should also be set out to firstly avoid, then mitigate and, as a last resort compensate for adverse impacts on biodiversity and geodiversity.

**NCC:** There are clearly opportunities likely to arise for development to occur on brownfield sites within the lifespan of the emerging plan. This may reduce pressure on other sites within the LPA boundary, the brownfield sites can have significant biodiversity value in themselves.

**RSPB:** The Local Plan should acknowledge the possibility that brownfield sites could be of 'High Environmental Value' and should require the developer to establish whether that is the case as part of the application process.

**SWT:** support protecting the biodiversity value of brownfield sites.

Sustainability Appraisal Summary

Evidence used to inform this section

Monitoring Indicators

Policy x – Open Space on land, play, sports fields and allotments

- Existing Provision. See map x

Development that would result in the loss of existing sport, recreational, allotment or amenity open space will only be permitted if it can be demonstrated (through a local assessment):

- that there is an excess of recreational or amenity open space in the entire settlement (in and out of the Broads) and the proposed loss will not result in a current or likely shortfall during the plan period; and
- recreational facilities within the open space will be enhanced by the proposed development on an appropriate portion of the open space; or
- the community would gain greater benefit from the developer providing a suitable alternative recreational or amenity open space of an equivalent quality in an equally accessible and convenient location.

The development of existing open space with an ecological value (a known biodiversity or nature conservation interest) will not be permitted.

- New Provision

All new residential development (other than householder development) is expected to provide a contribution towards outdoor playing space. There will be a presumption that open space, play, sport and recreation facilities will be provided on the development site.

Where on-site provision is provided, the space should be of the appropriate type to serve the needs of the development, and well related to the proposed residential properties in accordance with relevant standards.

It is recognised that there may be scenarios where the direct provision of open space on-site is not the preferred option. Contributions in lieu of on-site provision will be the exception and will need to be supported by robust evidence from the applicant that on-site provision is not preferable. Any contribution will need to be to a specific deliverable scheme in consultation with the relevant parish council and the developer contributions policy in this document. The contribution will be required to name a specific scheme (site and type of provision).

In addition to the on-site and off-site contributions, a contribution will be required for maintenance of the facility. The contribution will be proportional to the type of facility provided.

- Standards

The Broads Authority will defer to the standards set by the relevant constituent district council.

- Cemeteries and burial grounds

Development proposals for new cemeteries and burial grounds that comply with other relevant policies will be permitted where they are:

- appropriately sited in a sustainable location.
- designed to make the most of opportunities to improve and/or create new biodiversity, habitats and green infrastructure; and
- will have no adverse impact on controlled waters including groundwater and surface water.

#### Reasoned Justification

The provision of public open space, sports fields, play space and allotments are essential in promoting active living and providing important physical, psychological and social health benefits for the community. They can also contribute to mental health and community wellbeing. The Authority therefore considers it important to retain open spaces, including children's play space and sports facilities, which are valued by local communities and/or add to the local character, unless a suitable alternative can be provided and to create new open spaces that are located within or close to housing developments, that are safe and accessible for all members of the community. This policy sets out criteria for assessing proposals relating to these land uses.

Because our constituent districts assess the entire district in relation to need for these uses, including that part which is the Broads, it is appropriate and reasonable to defer to the standards set in their Local Plans. To do

otherwise could skew open space need and does not reflect that these facilities are beneficial to and used by the entire community/settlement regardless of Local Planning Authority boundary.

Some of the Authority's constituent councils have adopted the Community Infrastructure Levy (CIL) and play, allotments and open space are part of the charging schedule. There is no CIL in the Broads Authority and therefore the Authority relies on S106 agreements (to which there are pooling restrictions now in place) to provide these.

With regards to off-site provision in the policy, the Authority acknowledges that open space may not represent an efficient use of land in the context of a particular site location or that there could be a deliverable opportunity to secure a more meaningful area of open space that better serves the whole community in close proximity to the application site.

The Authority will defer to standards and/or policies of constituent councils. Furthermore the Authority will liaise with the constituent councils regarding ongoing management of the space.

Regarding requiring off-site contribution, applications will be assessed on an individual basis in liaison with the relevant council and the Authority will use planning obligations where appropriate and viable to secure contributions.

If a proposal is below the threshold for on-site contributions and if the relevant council has CIL in place, the Authority will base off-site commuted sum on that Council's commuted sum rates which could be pre-CIL and adjusted for inflation.

With regards to the local assessment, this would be undertaken by the applicant and then assessed by the Authority in liaison with the relevant district council. The assessment must look at the entire settlement, including that part of the settlement outside of the Broads. The assessment will also assess whether alternative provision is available in the vicinity without causing an unreasonable reduction or shortfall in meeting the local need.

Cemeteries and burial grounds are a much valued and sensitive type of green infrastructure asset. All proposals for new cemeteries and burial grounds should be in a sustainable location with good links to suitable access networks. The development proposals should have due regard to the character of the surrounding area especially those relating to the special qualities and retain any existing landscape features such as hedges and trees. Any opportunities to improve and/or create new biodiversity, habitats and green infrastructure should also be taken. It will be necessary to demonstrate that the proposed cemetery will not have an adverse impact on ground or surface water.

The design of any open space and its integration into a proposed scheme, streetscape and landscape is an important consideration. Design standards as well as experience of the relevant council will be applied.

The maps at appendix x show areas of open space that were assessed as part of open space assessments which have been completed by our constituent districts. Whilst the districts assessed the entire district, including that which is the Broads, they only allocated open space in their Local Planning Authority area. Working with our districts we have allocated the open space assessed as part of their assessments, which falls within the Broads Authority Executive Area. It is important to note that this is a snap shot in time and reflects the open space at the time of writing. Many of our districts intend to update their assessments as part of their Local Plan production. The Authority will defer to the most up to date open space assessment.

### Alternative Options:

#### Comments received as part of the Issues and Options:

**South Norfolk Council** would support Option 3 to include a policy in the new Local Plan that refers/defers to existing and future play and open space policies in constituent districts policy documents. South Norfolk is planning to review its current open space standards in the near future and some early dialogue has taken place with the Broads Authority about being involved in this process. The issue of management of open space and play areas needs to be carefully considered and it should not be assumed that South Norfolk will automatically take on responsibility for management.

**Norfolk County Council:** Public Health welcome the acknowledgements given to the value of open spaces, play etc. to public health and the consideration given to approaches to address land-based open space, allotments and play requirements in the Broads.

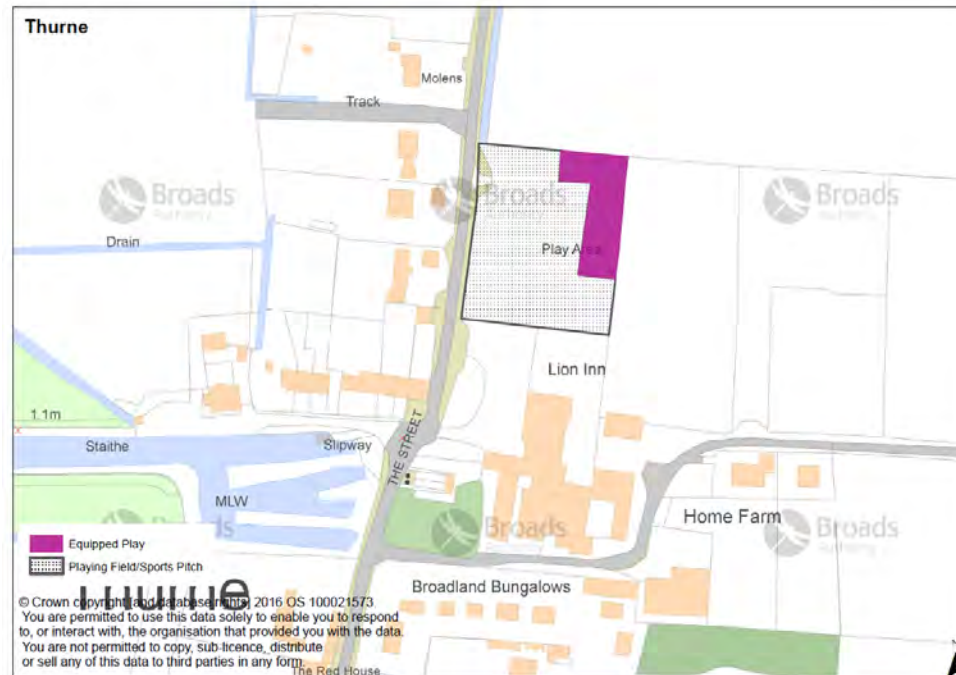
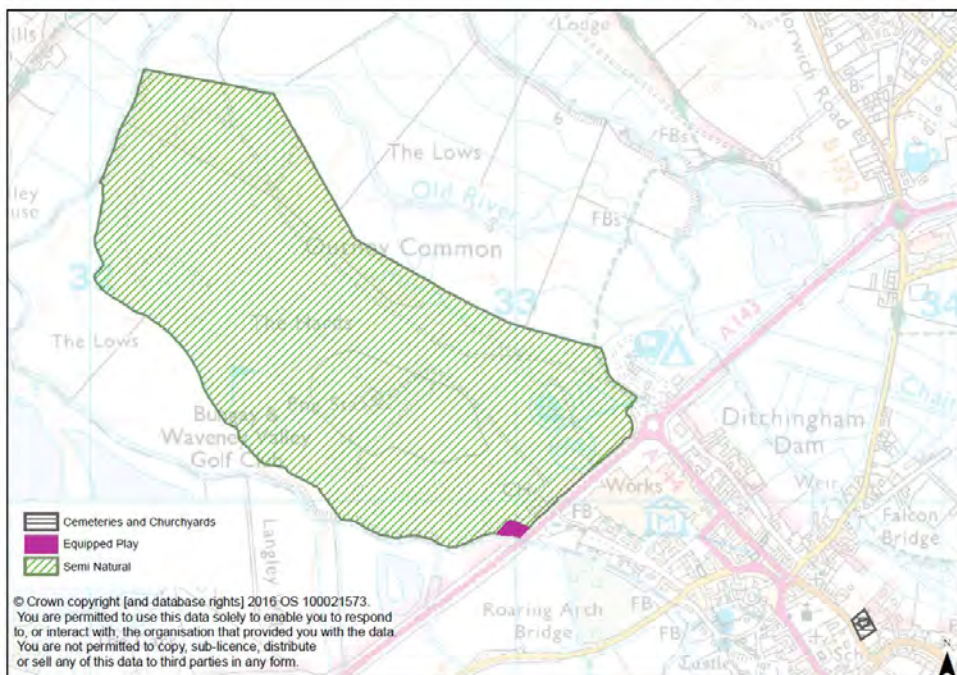
The **RSPB** considers that there does need to be a guiding principle established as to the requirement for open space and play areas to be included in the design of developments. It should be clear what would be expected to be provided, although the scale of provision could be determined by the planning process.

Sustainability Appraisal Summary

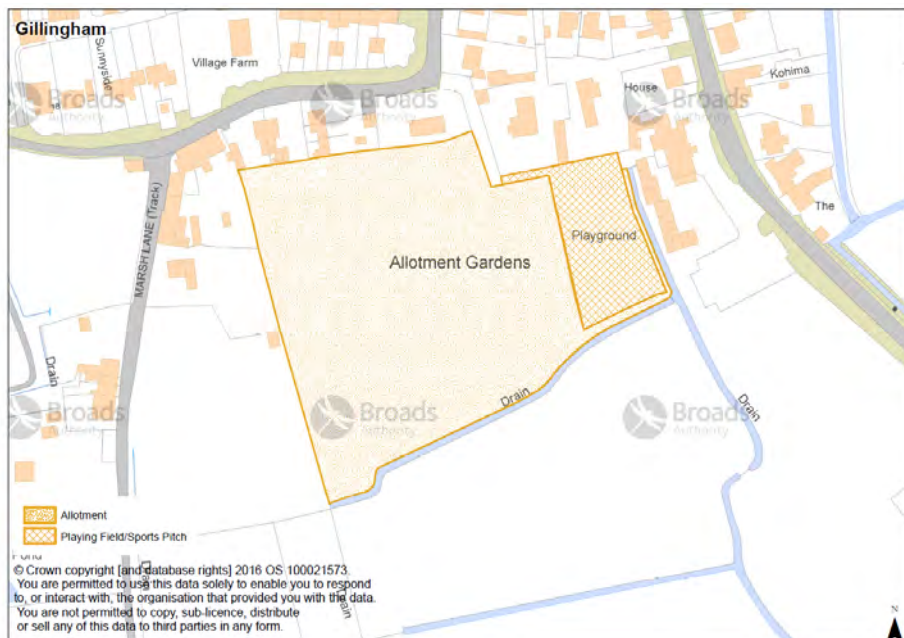
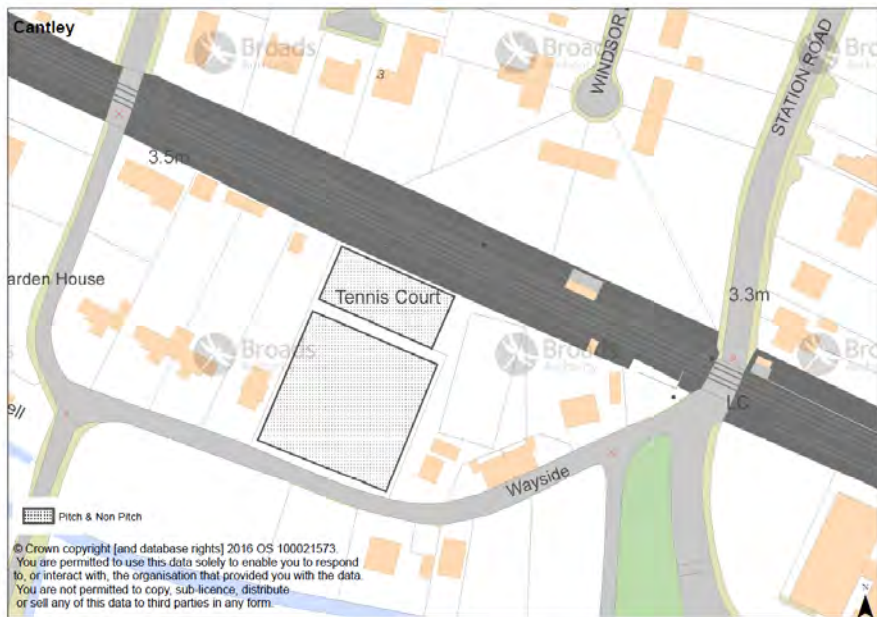
Evidence used to inform this section

Monitoring Indicators

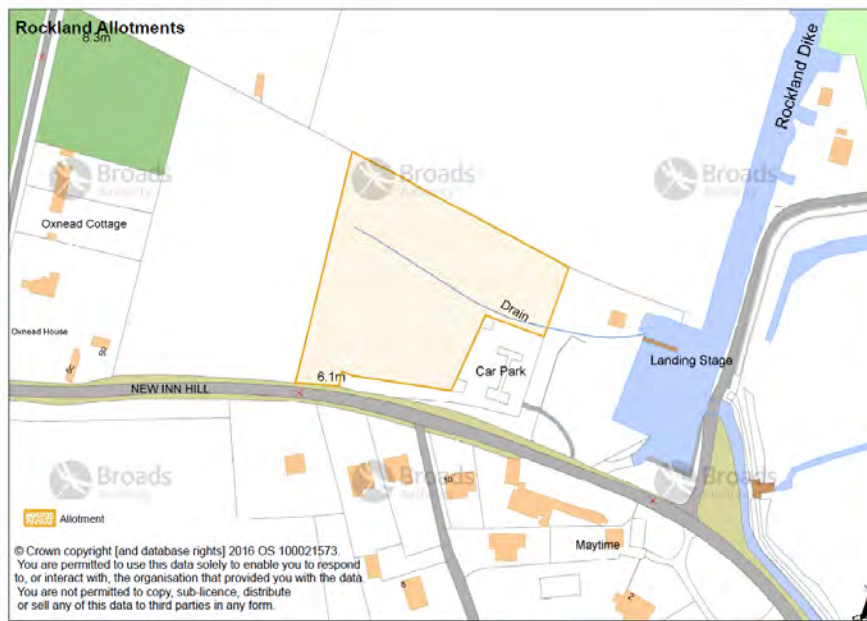
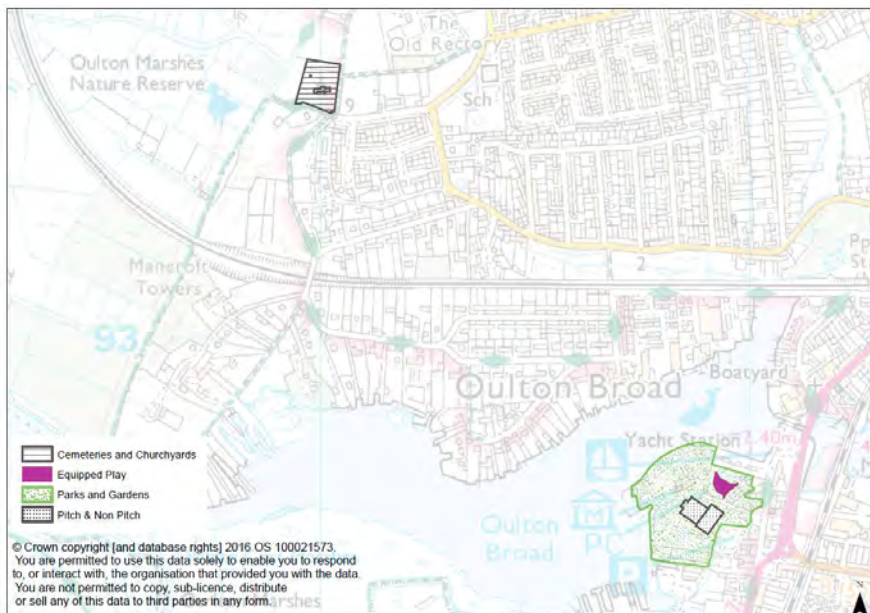
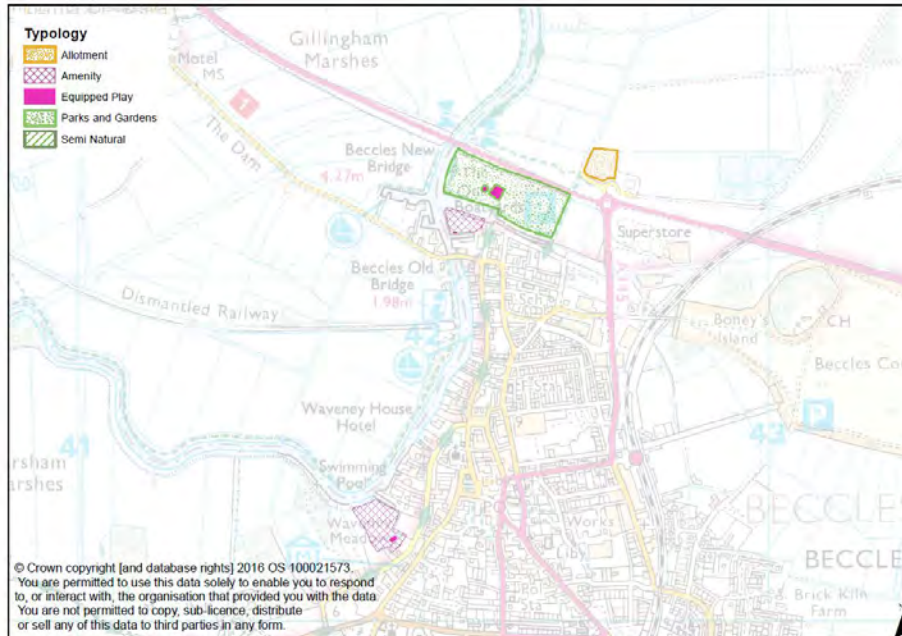
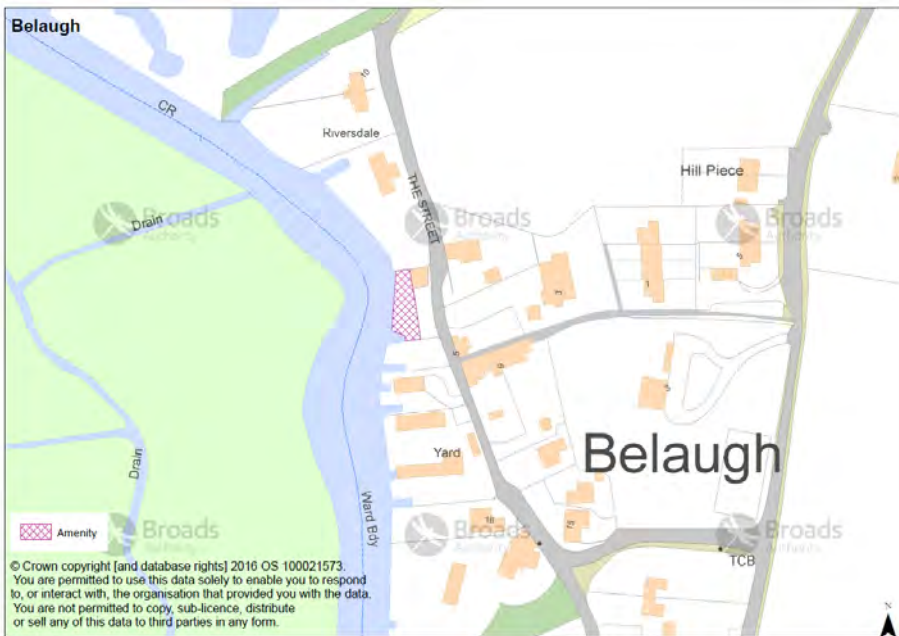
Appendix x: Open Space maps. Note that these are draft maps and the symbols will be amended to make consistent.













**Policy XNS 6: Waterside Pubs Network**

Main Map (NE, NW and S), and Inset Maps 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13

The following establishments, identified on the Adopted Policies Map, will be protected in their public house use as key parts of a network of community, visitor and boating facilities, as well as for their individual contribution to such facilities.

The Authority will support appropriate proposals which

- contribute to the viability of these businesses;
- improve the visual impact;
- provide benefits to river/water users (such as canoe slipways and electric charging points);
- provide well designed cycle parking facilities;
- upgrade/improve foul drainage arrangements;
- improve resilience to flood risk; and
- address light pollution.

~~Environmental improvements at such premises will be encouraged for their visual impact and contribution to the viability of these businesses. Opportunities to upgrade/improve foul drainage arrangements and also improve resilience to flood risk should be taken.~~

**YARE**

Rushcutters, Thorpe Green  
 River Garden, Thorpe Green  
 Town House, Thorpe Green  
~~Woods End~~ Water's Edge, Bramerton  
 Ferry House, Surlingham  
 Coldham Hall, Surlingham  
 Yare, Brundall Riverside  
 New Inn, Rockland  
 Beauchamp Arms, Claxton  
 Reedcutters, Cantley  
 Reedham Ferry Inn, Reedham  
 Lord Nelson, Reedham  
 Berney Arms, Berney Arms  
 The Ship, Reedham

**BURE**

Norfolk Mead Hotel, Coltishall  
 King's Head, Coltishall  
 Rising Sun, Coltishall  
 King's Head, Hoveton  
 Hotel Wroxham, Hoveton  
 Swan, Horning  
 New Inn, Horning  
 Ferry Inn, Horning  
 Bridge Inn, Acle

**ANT**

Cross Keys Inn, Dilham  
 Wayford Bridge Hotel, Wayford Bridge  
 Sutton Staithe Hotel, Sutton Staithe  
 White Horse, Neatishead  
 Dog, Johnson Street (Ludham Bridge)

**THURNE**

Pleasure Boat, Hickling  
 Broadshaven Hotel, Potter Heigham Bridge  
 Lion, Thurne

**TRINITY**

~~Eels Foot Inn~~ The Boathouse, Ormesby  
 Filby Bridge Inn, Filby

**WAVENEY**

Locks Inn, Geldeston  
 Waveney House Hotel, Beccles  
 Waveney Inn, Burgh St. Peter  
 Duke's Head, Somerleyton  
 Bell Inn, St Olaves  
 Fisherman's Bar, Burgh Castle

**OULTON BROAD**

Wherry Hotel, Oulton Broad



Hermitage, Acle  
 Ferry Inn, Stokesby  
~~Pontiac Roadhouse, Stracey Arms~~  
 Maltsters, Ranworth

Commodore, Oulton Broad  
 Ivy House Hotel, Oulton Broad

#### PARISHES AFFECTED

Acle CP, Beccles CP, Bramerton CP, Brundall CP, Burgh Castle CP, Burgh St. Peter CP, Cantley CP, Carleton St. Peter CP, Coltishall CP, Dilham CP, Fritton and St. Olaves CP, Geldeston CP, Halvergate CP, Hickling CP, Horning CP, Hoveton CP, Ludham CP, Ormesby St. Michael CP, Potter Heigham CP, Reedham CP, Rockland St. Mary CP, Rollesby CP, Somerleyton, Ashby and Herringfleet CP, Stalham CP, Stokesby with Herringby CP, Surlingham CP, Sutton CP, Thorpe St. Andrew CP, Thurne CP, Woodbastwick CP, (and also Oulton Broad, not parished).

#### CONSTRAINTS & FEATURES

Almost all these premises are in zones of high flood risk.

Some are in conservation areas, or areas of archaeological interest. Some themselves are of historic interest, including listed buildings.

Some are within or close to SAC, SPA, SSSI, Ramsar, CWS, etc.

#### SUSTAINABILITY APPRAISAL CONCLUSION

To follow

#### PLANNING SUMMARY ASSESSMENT

The waterside pub network is very important especially for recreational boating, but also to local communities and non-boating visitors. Whilst this can be said about a very wide range of establishments and locations, public houses have, for a variety of reasons, been especially vulnerable to closure in recent years.

~~Core Strategy policy CS9 and CS23 seek to support a network of tourism, recreational and community facilities throughout the Broads system (CS23 specifically in relation to waterside sites) and protect against loss of existing services.~~

The loss of any particular pub (or other establishment) can sometimes be difficult to resist. By specifying in the ~~development~~ Local plan that these are part of a defined network will strengthen the planning case against any individual closure. Importantly, it will also signal the planning stance and help ensure consistent messages are received by owners and prospective developers of the identified establishments to guide their own plans.

The policy seeks the retention of the pubs as public houses and gives support to appropriate improvements to the pub that will ensure the pub stays viable. Such improvements could include the appearance of the pub as well as provision of specific facilities for water and road users (such as canoe slipways and well-designed and located Sheffield Stand cycle parking).

Due to the seasonality, proximity to the watercourse and the nature of the effluent which can pose a significant local risk to the water environment, drainage is an issue which this policy seeks to address. Ensuring that there is no deterioration in water quality is an

important requirement under the Water Framework Directive which applies to all surface water bodies and groundwater bodies.

As set out in policy x, addressing light pollution in the Broads is an important aspect of the Local Plan. These establishments can be in rural areas, sometimes away from or on the edge of settlements and any external lighting can have a significant impact on the tranquillity of the area. Proposals need to address light pollution.

In cases where owners wish to pursue other forms of use of the public houses, they will be required to submit a report undertaken by an independent Chartered Surveyor that meets the tests as set out in the CAMRA Public House Viability Test<sup>1</sup> with any planning application.

**MONITORING INDICATORS**

*To follow*

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<sup>1</sup> <http://www.camra.org.uk/documents/10180/36197/PHVT/725c3a01-9c07-4b2b-b263-a1842bef09b7>



**Renewable & Low Carbon Energy Topic Paper**  
**Broads Authority Local Plan**  
**July 2016**

## 1. Introduction

The NPPG says that:

*'When drawing up a Local Plan local planning authorities should first consider what the local potential is for renewable and low carbon energy generation.'*

*Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable.*

*Local planning authorities are responsible for renewable and low carbon energy development of 50 megawatts or less installed capacity (under the Town and Country Planning Act 1990). Renewable and low carbon developments over 50 megawatts capacity are currently considered by the Secretary of State for Energy under the Planning Act 2008, and the local planning authority is a statutory consultee.*

*Microgeneration is often permitted development and may not require an application for planning permission.*

*In considering that potential, the matters local planning authorities should think about include:*

- *The range of technologies that could be accommodated and the policies needed to encourage their development in the right places;*
- *The costs of many renewable energy technologies are falling, potentially increasing their attractiveness and the number of proposals;*
- *Different technologies have different impacts and the impacts can vary by place;*
- *The UK has legal commitments to cut greenhouse gases and meet increased energy demand from renewable sources.*

*Whilst local authorities should design their policies to maximise renewable and low carbon energy development, there is no quota which the Local Plan has to deliver.*

This Topic Paper brings together literature on renewable energy in general as well as relating specifically to the Broads Authority Executive Area.

## 2. Renewable Energy Demands of the Broads

The Broads Authority commissioned a study to review renewable energy solutions in the Broads (Hickey, 2013). The study concluded that:

*'The most efficient and immediate solution for renewable energy generation in the Broads is a combination of GSHP (Ground Source Heat Pumps), ASHP (Air Source Heat Pumps), SG (Solar Greenhouses) and AD-CHP (Anaerobic Digestion Combined Heat and Power). SG or integrated amorphous technology (thin film a-Si) or Solar Slates offer the best form of domestic electricity generation taking the aesthetic constraints of the Broads into consideration.'*

## 3. Solar panels and solar farms

The Broads Landscape Sensitivity Study assessed the impact of solar photovoltaics on roofs (panels) as well as in fields (farms). The maps have been copied into this report:

- Figure 4.11: Solar PV – overall landscape sensitivity
- Figure 4.12: Sensitivity to roof mounted solar PV requiring planning permission
- Figure 4.13: Sensitivity to roof mounted solar PV of up to 1 hectare area
- Figure 4.14: Sensitivity to small scale field mounted solar PV of up to 1 hectare area
- Figure 4.15: Sensitivity to medium scale field mounted solar PV of 1-5 hectares area

### i) Solar PV

It can be seen from the assessment on the maps that the Broads landscape’s sensitivity to solar PV tends to be fairly high, both in terms of landscape character and representation of special qualities. Reflecting these attributes, the assessment has found that there are no landscapes in the Broads which score low or moderate-low to the development of solar PV schemes.

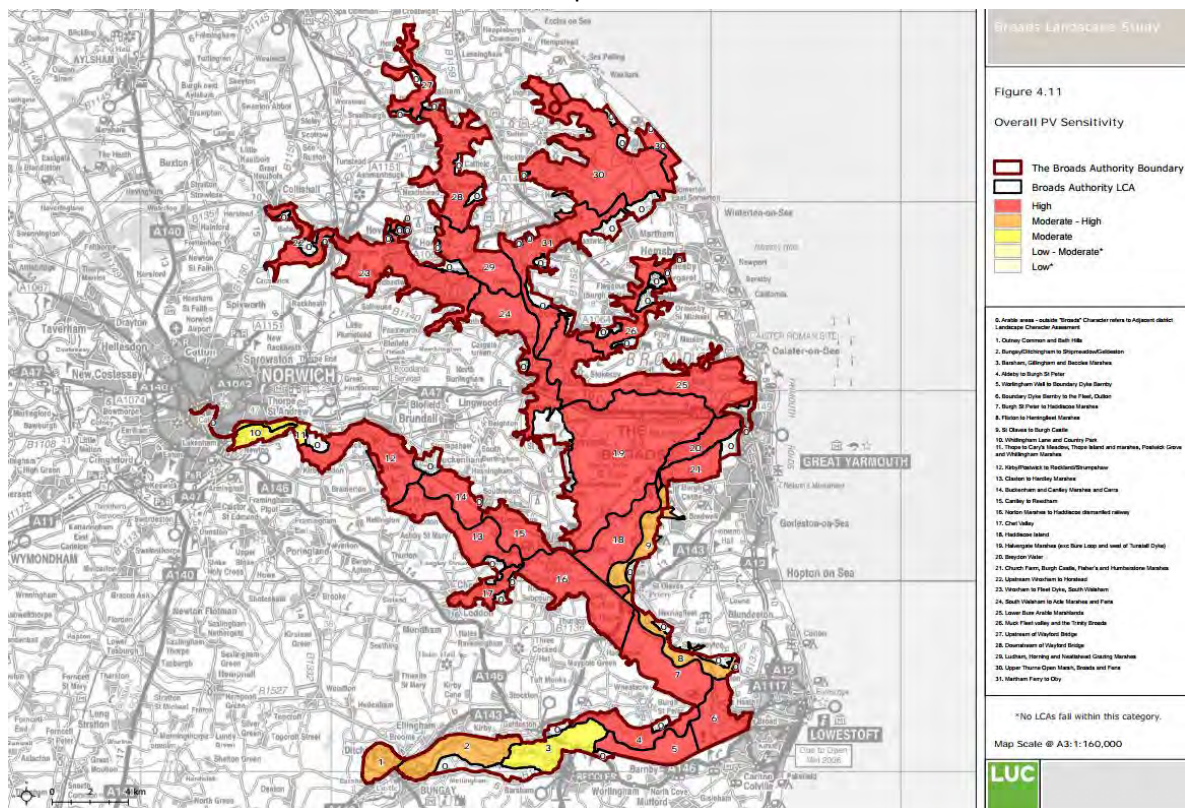


Figure 4.11: Solar PV – overall landscape sensitivity



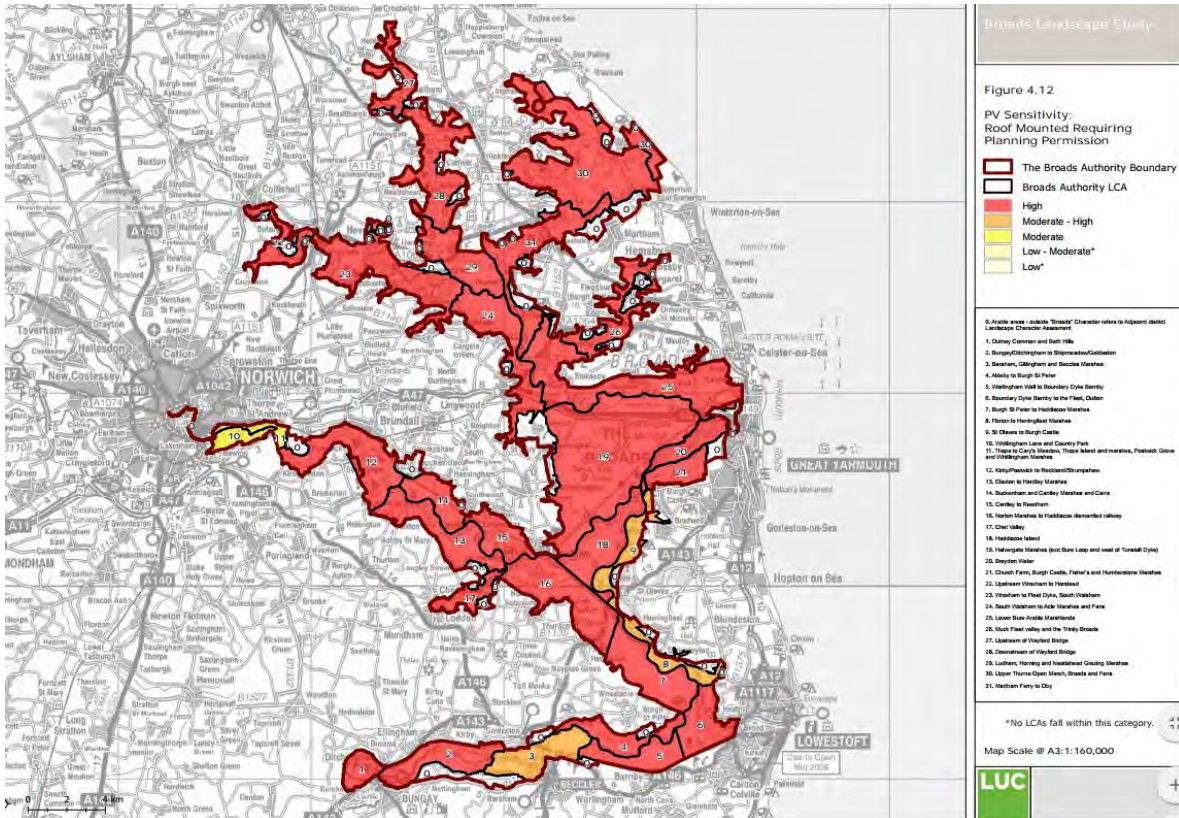


Figure 4.12: Sensitivity to roof mounted solar PV requiring planning permission

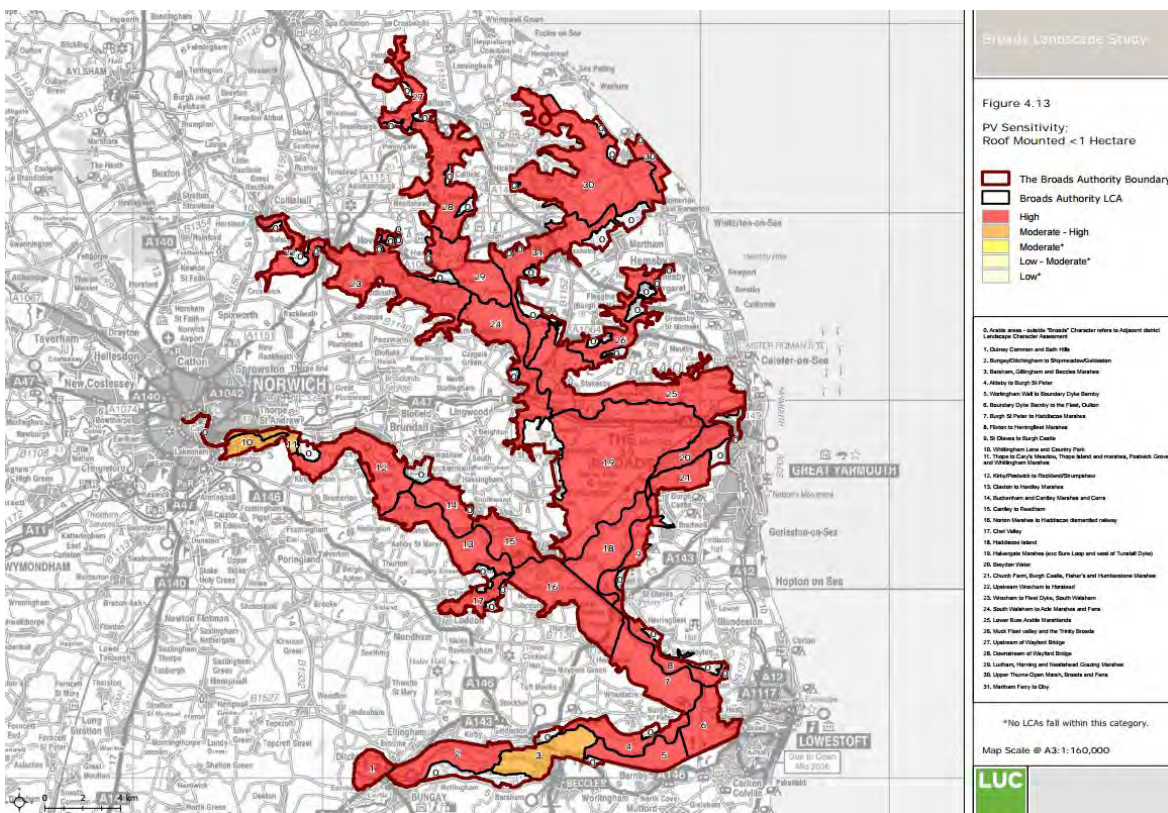


Figure 4.13: Sensitivity to roof mounted solar PV of up to 1 hectare area



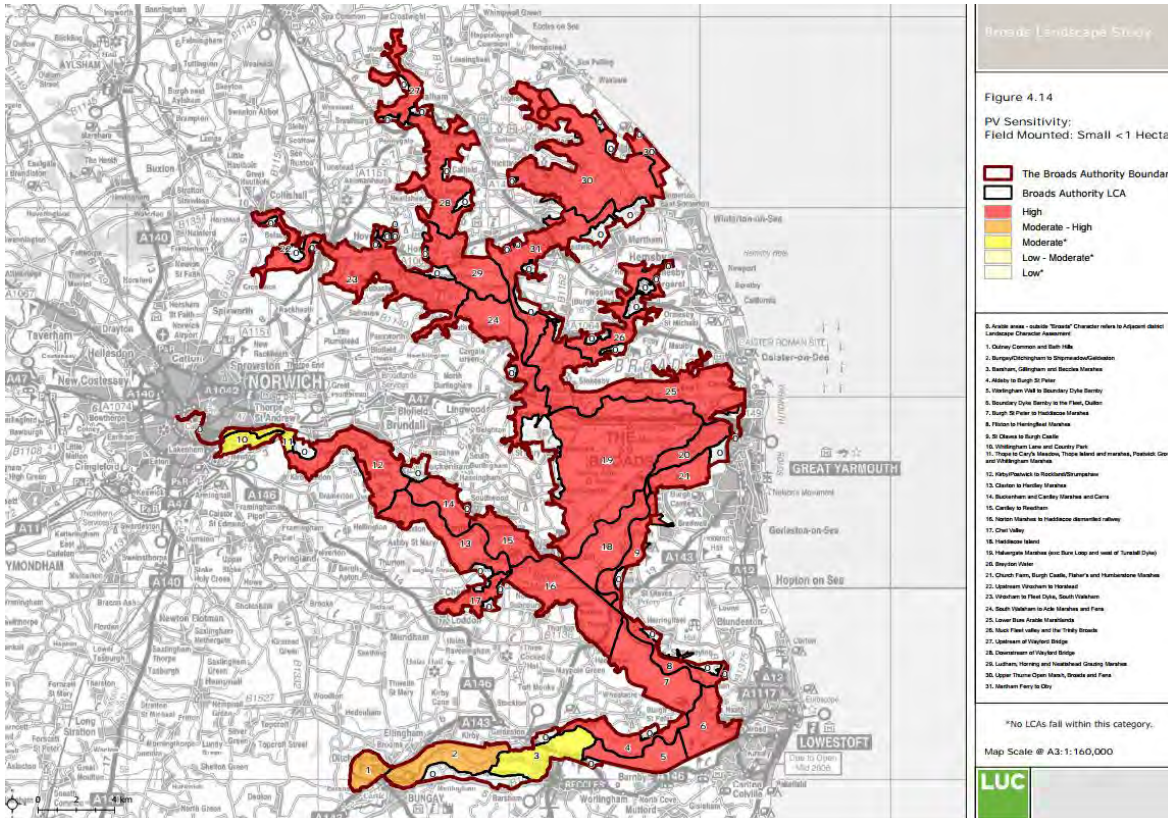


Figure 4.14: Sensitivity to small scale field mounted solar PV of up to 1 hectare area

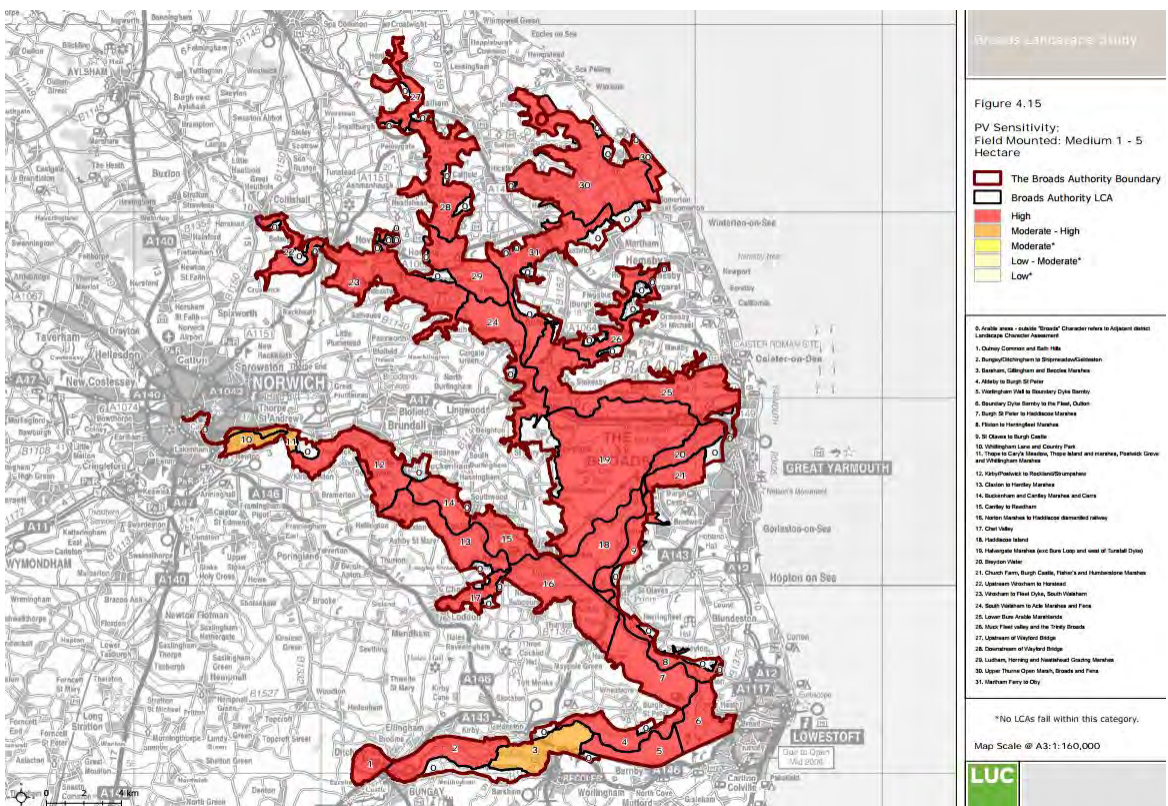


Figure 4.15: Sensitivity to medium scale field mounted solar PV of 1-5 hectares area

ii) Solar panels in the Broads

Solar tiles or solar slates are mounted on the roof, in place of the roof tiles. Being integrated into the roof of buildings, as well as potentially of a similar colour to the roof tiles, they can have less of an impact on the street scene and landscape than larger panels which are mounted on the roof tiles. In comparison to solar panels they may be considered appropriate on Listed Buildings or in Conservation Areas. Solar tiles or solar slates are however less economically viable than solar panels and this could inhibit their use.

#### **4. Battery storage capacity<sup>1</sup>**

The application areas discussed here were determined by examining the applications of battery storage most directly related to wind and solar PV power integration. Batteries can be deployed to aid the integration of renewable energy, especially solar and wind power. These are variable renewable energy sources as the energy produced fluctuates depending on the availability of the resource.

Any deployment of battery storage is highly likely to be closely associated with either solar energy systems or wind energy, and therefore the suitability would be restricted to where these technologies would be considered appropriate, please see sections 3 and 7.

#### **5. Heat pumps**

There are three types of heat pumps currently available, Air Source Heat Pumps (ASHP), Ground Source Heat Pumps (GSHP) and Water Source Heat Pumps (WSHP).

##### *Air Source Heat Pumps*

An ASHP can offer a full central heating solution and domestic hot water up to 60 degrees. They are significantly easier to install than a GSHP, given no excavation or heavy machinery is required. The installation of a microgeneration ASHP benefits from permitted development rights within the curtilage of a dwellinghouse or a block of flats (subject to conditions).

##### *Ground Source Heat Pumps*

They utilise the same principle methods as ASHP but require a degree of ground works to lay the necessary cables. The installation, alteration or replacement of a microgeneration ground source heat pump within the curtilage of a dwellinghouse or a block of flats benefits from permitted development rights.

##### *Water source heat pumps*

Water source heat pumps at a microgeneration scale would benefit from permitted development rights if they are located within the curtilage of a dwellinghouse. As the required water source is unlikely to be considered as part of the curtilage of a dwelling there would be limited opportunities for permitted development rights to be implemented. It is highly likely that planning permission would be required for WSHP.

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<sup>1</sup> Go here for more information: [http://www.irena.org/documentdownloads/publications/irena\\_battery\\_storage\\_report\\_2015.pdf](http://www.irena.org/documentdownloads/publications/irena_battery_storage_report_2015.pdf)

Water source heat pumps have not been widely adopted and are relatively new form of renewable energy in comparison to solar and wind. Further research would be required into the potential impacts that the required network of piping would have on navigation, dredging and biodiversity.

The Authority is aware that Norwich City Council has recently commissioned a study relating to water source heat pumps and will seek to understand its findings and any potential implications for the Broads.

### **6. Anaerobic digestion combined heat and power**

Constructing an AD-CHP plant would require a 2-3 acre site, which needs to balance minimizing transmission losses to domestic units, and ease of access to raw organic waste. These would be best sited on existing agricultural units.

Biomass renewable energy generation in the Broads can be used in conjunction with the findings of the GHG (Greenhouse Gas) reduction strategy as presented by the University of East Anglia (University of East Anglia, Broads Authority. Towards a GHG Reduction Strategy for the Broads – Identifying and Prioritising Actions - May 2010). This report has highlighted that the primary asset for both electricity generation and GHG reduction is farm waste (N2O). Renewable energy generation reduces the net GHG of the region by displacing emissions that would be produced buy fossil fuel sources. By using the waste assets of the land, GHG is offset and electricity is generated. Biomass assets of the land include –

- Fen, Wetland Vegetation
- Reed Beds
- Scrub
- Mixed Organic Waste
- Slurry
- Woodland

### **7. Reed as biomass**

A 2010 study<sup>2</sup> investigated options for use of harvested fen. The aim of this report was to identify how fen harvesting could be made sustainable by finding a productive and hopefully commercial end-use for the arisings. Two of the most viable options are:

- The products of pyrolysis include biodiesel and biochar. The latter is an almost pure form of carbon with a wide range of uses. All fen products can be pyrolysed, although the technology is currently at an early stage of development.
- Combustion fuels. These include woodchips, bales of scrub, and reed pellets. The first two are well established processes. Consideration of reed pellets formed the majority of the report.

### **8. Hydro**

Although the Broads is largely characterized by low-lying wetland and flood plains, there is a potential to extract energy from hydroelectricity. Some of the hydrodynamic assets of the Broads include –

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<sup>2</sup> New Opportunities For The Sustainable Management Of Fens: Reed Pelleting, Composting And The roductive Use Of Fen Harvests.



- Tidal - (River Yare)
- Weirs

The River Yare provides a tidal current, which could accommodate a tidal barrier / energy harvester. As regards potential weirs for small-scale hydro electricity, three potential sites have been identified:

- Bungay - 52°27'23.25"N 1°26'36.95"E
- Pirnhow - 52°27'29.82"N 1°27'26.39"E
- Mill Pool Lane - 52°28'16.95"N 1°28'46.97"E

## 9. Wind Energy in the Broads

The NPPG says:

*'The Written Ministerial Statement made on 18 June 2015 is quite clear that when considering applications for wind energy development, local planning authorities should (subject to the transitional arrangement) only grant planning permission if:*

- *the development site is in an area identified as suitable for wind energy development in a Local or Neighbourhood Plan; and*
- *following consultation, it can be demonstrated that the planning impacts identified by affected local communities have been fully addressed and therefore the proposal has their backing. Whether the proposal has the backing of the affected local community is a planning judgement for the local planning authority.'*

### 9.1. Broads Landscape Sensitivity Study (2012)

The Broads Authority has a landscape sensitivity study relating to wind power (and solar farms). This study has identified the sensitivity of the Broads landscape to wind turbines and provides guidance for new development. It concludes that few areas will easily accommodate large turbines.

It is landscape areas 10 and 11 which are assessed as having moderate sensitivity to small and medium single turbines in the Broads Executive Area. All other areas are rated as moderate to high or high sensitivity. Area 10 is Whitlingham Lane and County Park and area 11 is Thorpe to Cary's Meadow, Thorpe Island and Marshes, Postwick Grove and Whitlingham Marshes. The study concludes for these areas:

*Overall landscape sensitivity of this area group to wind turbines is moderate. This is due to the disjointed landscape pattern and historic character (severances created by large scale settlement edges and by transport corridors such as the Norwich Bypass), the degree of visual containment created by valley sides and woodlands and the presence of large scale settlement edge influences to area 10 in particular. Against this are balanced sensitive features such as relict historic landscape patterns created by parkland as at Whitlingham and Trowse Newton, and the sense of tranquillity within Whitlingham Country Park and the Great Broad.*

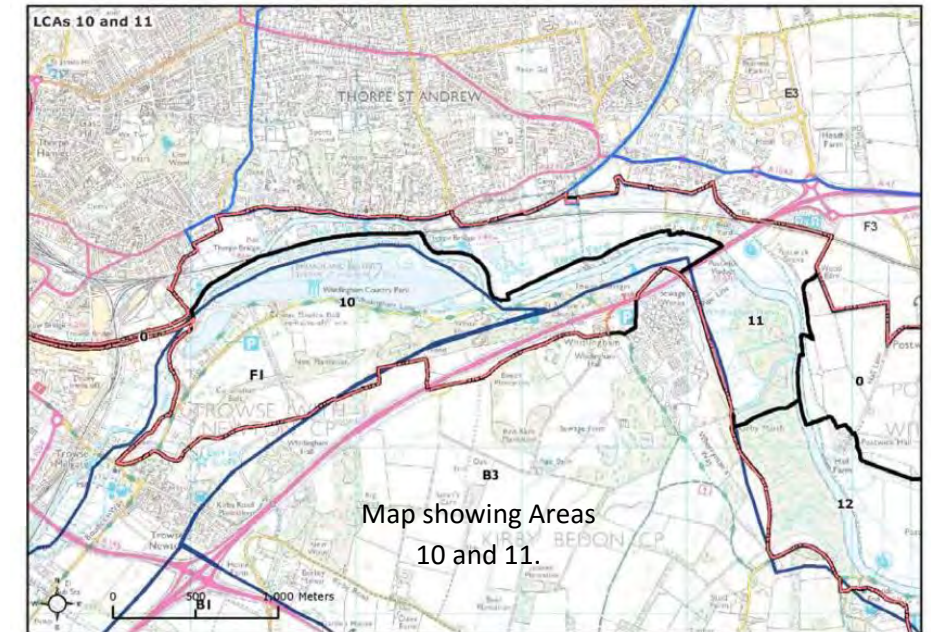


The following maps show the Landscape Sensitivity Assessment for Wind Turbines for Area 10 and Area 11.

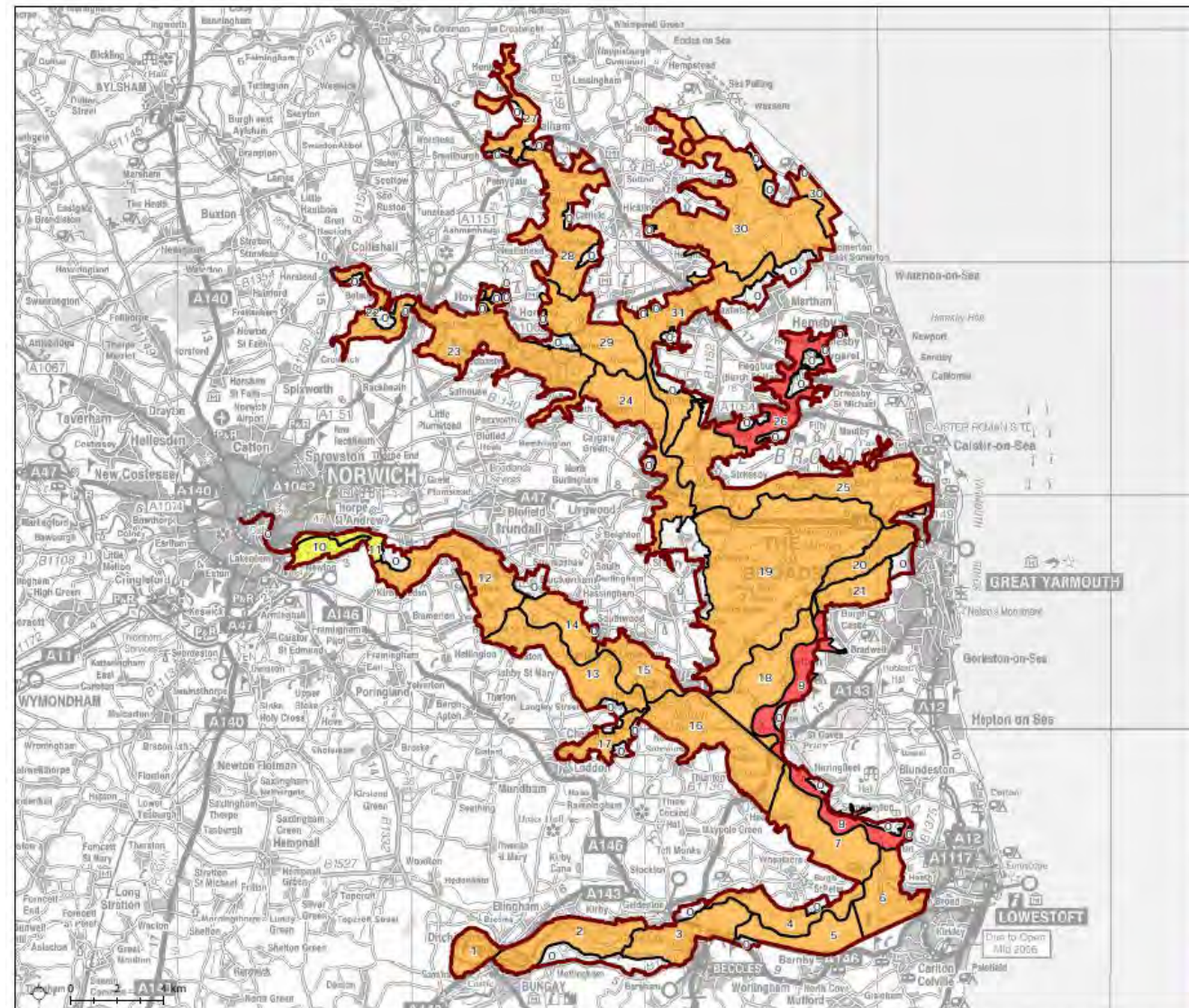
Sensitivity Level	Definition
High	The key characteristics and qualities of the landscape are highly sensitive to change from the type and scale of renewable energy being assessed.
Moderate – High	The key characteristics and qualities of the landscape are sensitive to change from the type and scale of renewable energy being assessed.
Moderate	Some of the key characteristics and qualities of the landscape are sensitive to change from the type and scale of renewable energy being assessed.
Low – Moderate	Few of the key characteristics and qualities of the landscape are sensitive to change from the type and scale of renewable energy being assessed
Low	Key characteristics and qualities of the landscape are robust and are less likely to be adversely affected by the type and scale of renewable energy development being assessed

The Landscape Sensitivity Study defines turbine size as

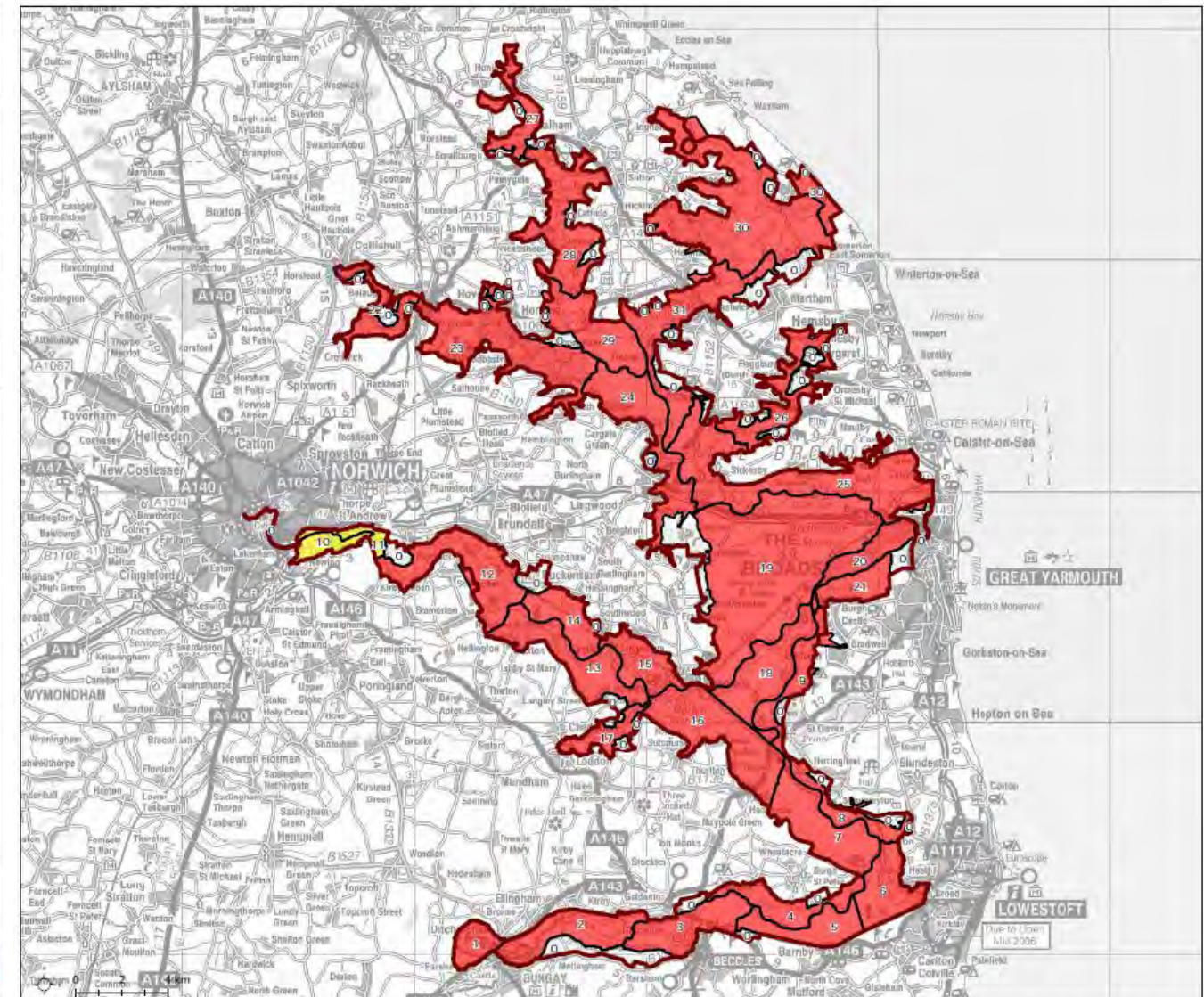
- small turbines - 0-20m height
- medium turbines - 20-50m height



Landscape Sensitivity to Small Turbines



Landscape Sensitivity to Medium Turbines

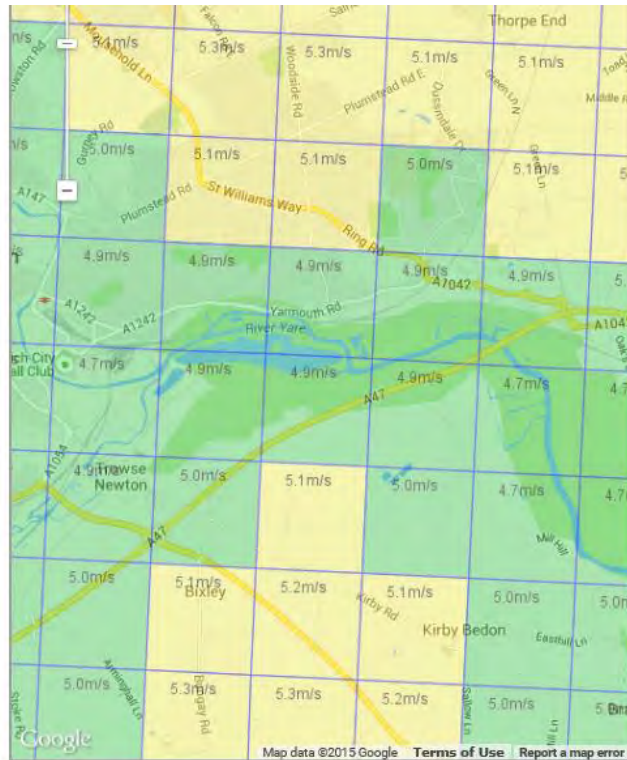




9.2. Wind Speed

No specific work has been completed to assess wind speed to inform this topic paper. The Rensmart website<sup>3</sup> gives an indication of wind speed. Typical wind speeds for the Whitlingham area (areas 10 and 11 of the landscape sensitivity study) are set out in the table below. The screenshot (from Rensmart website and map data from Google) also shows wind speeds.

Height Above Ground	Wind Speed
At 10 meters	4.9 m/s 11 mph
At 25 meters	5.6 m/s 12.5 mph



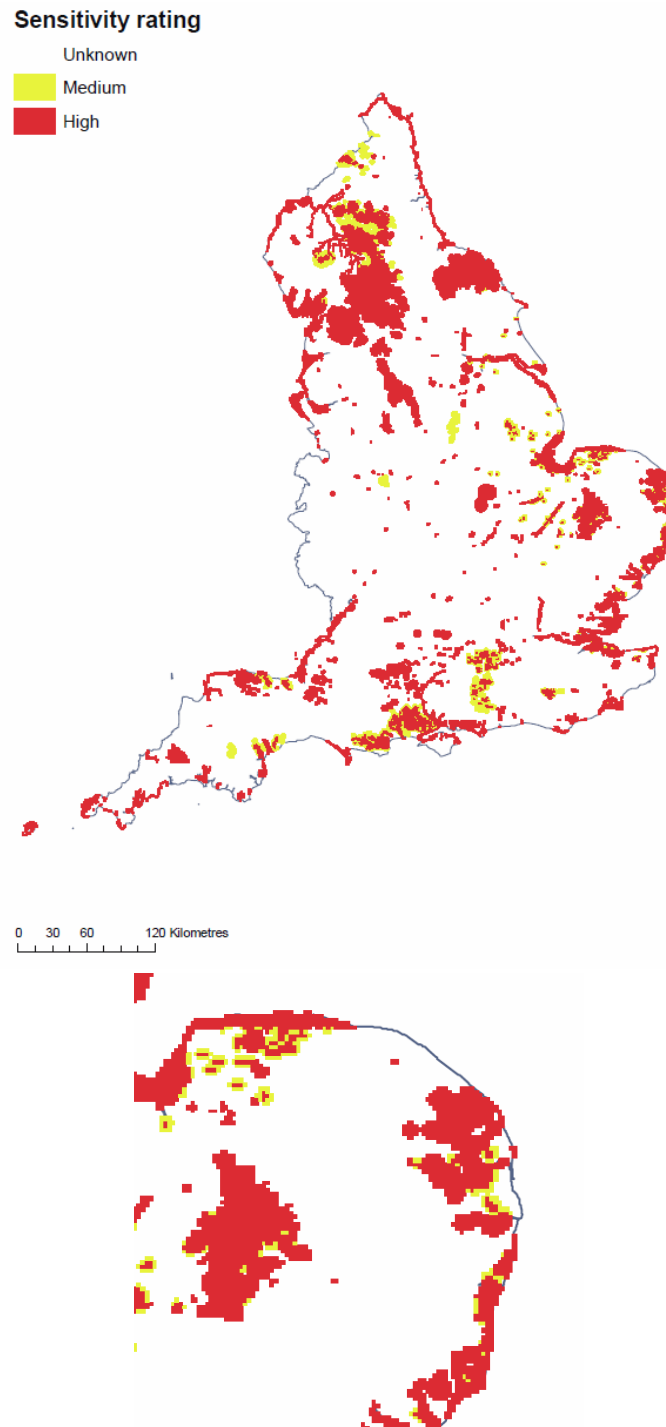
It is important to note that a site’s suitability for wind turbines reflects the specifics of the site (for example a tree to the south west of the site is likely to impact efficient energy generation) as well as the economics (for example the announcement in July 2015 that the Government intends to cease onshore windfarm subsidies).

9.3. RSPB and Natural England work relating to birds

In 2009 RSPB and Natural England commissioned a GIS map and written guidance to aid the planning process for onshore wind energy development in England. The map is based on distributional data for twelve sensitive bird species, plus statutory SPAs (Special Protection Areas), and sites containing nationally important populations of breeding waders and seabirds, or wintering waders or wildfowl.

The map indicates a greater incidence of bird sensitivities in coastal and estuarine areas and upland areas in the north of England. The Broads Executive Area is generally rated as having a high sensitivity with some areas of medium sensitivity (see inset map, zoomed into the Broads area).

<sup>3</sup> This interactive map gives estimated wind speed for each square kilometre of the UK. The data is taken from the NOABL wind database. The BERR Wind Speed Database is the result of an air flow model that estimates the effect of topography on wind speed. There is no allowance for the effect of local thermally driven winds such as sea breezes or mountain/valley breezes. The model was applied with 1km square resolution and takes no account of topography on a small scale or local surface roughness (such as tall crops, stone walls or trees), both of which may have a considerable effect on the wind speed. The data can only be used as a guide and should be followed by on-site measurements for a proper assessment.



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 © Crown Copyright and database right [2009]. Ordnance Survey licence number 100022021.

**Figure 1. Map of sensitive bird areas in relation to onshore wind farms in England.**  
 Based on the highest sensitivity rating, for any of the species or sites included, in each constituent 1-km square.

#### 9.4. Using the Existing Mills in the Broads

The restoration and re-use of disused mills is likely to be more acceptable in the Broads than modern wind turbines. These features are part of the cultural landscape already and some are redundant and in need of repair. So by improving these mills such heritage assets will be maintained in working

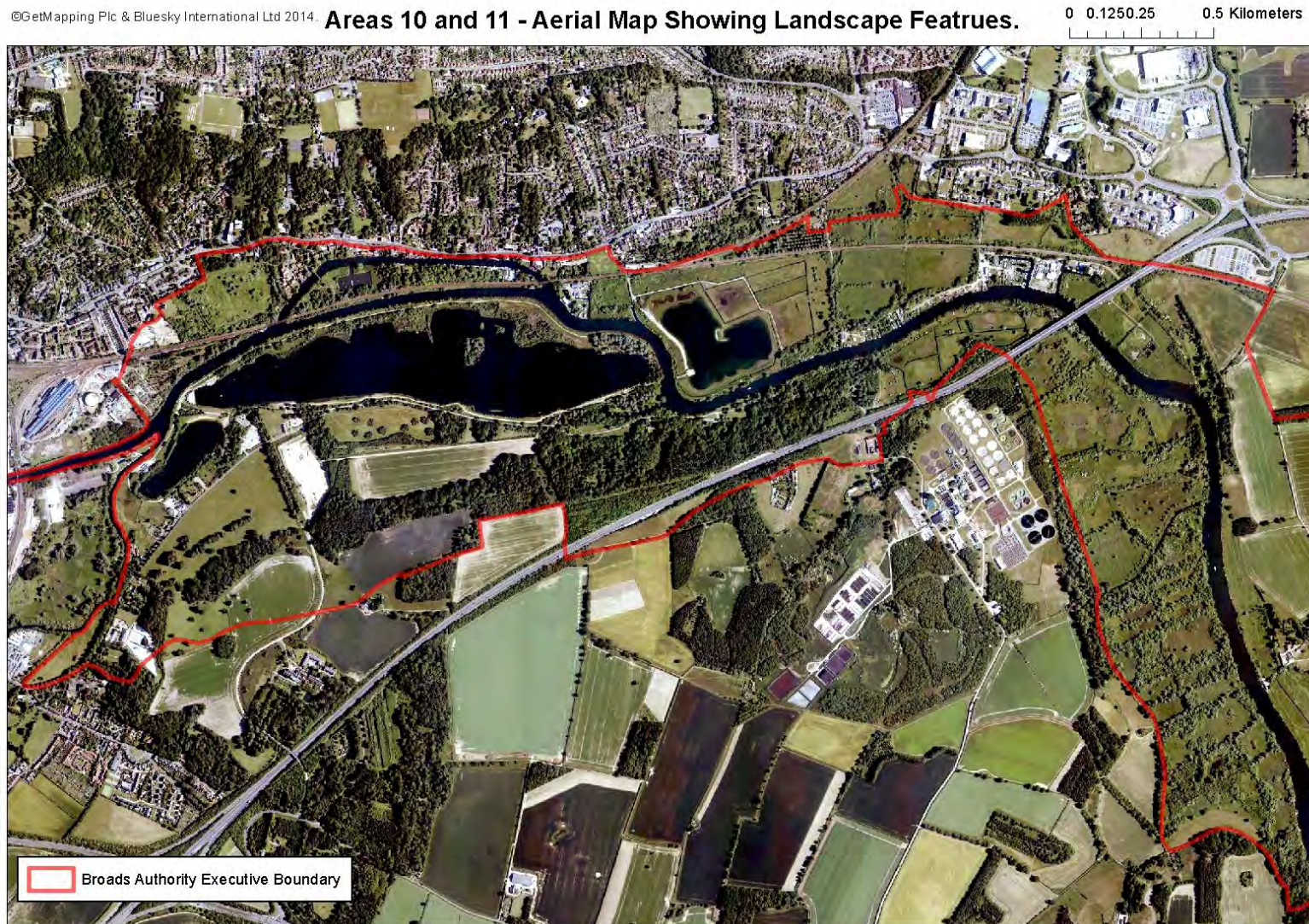


order and will generate renewable energy. That being said, the traditional design of mills is not the most effective for requirements of electricity generation. The existing building would need to be remodelled and adapted. Many buildings do not have electricity near to them thus requiring much infrastructure work to facilitate electricity transfer and the ongoing maintenance is likely to be onerous. Finally many mills would have to be renovated to extract enough electricity to feed a populated area.

Studies conclude that it is approximately 93% more expensive to restore each kWh of wind energy in comparison to generating each kWh of energy from a new anaerobic digestion plant. (Watson, Thomson, Clayton, Scott May 2014).

9.5. Constraints in Areas 10 and 11

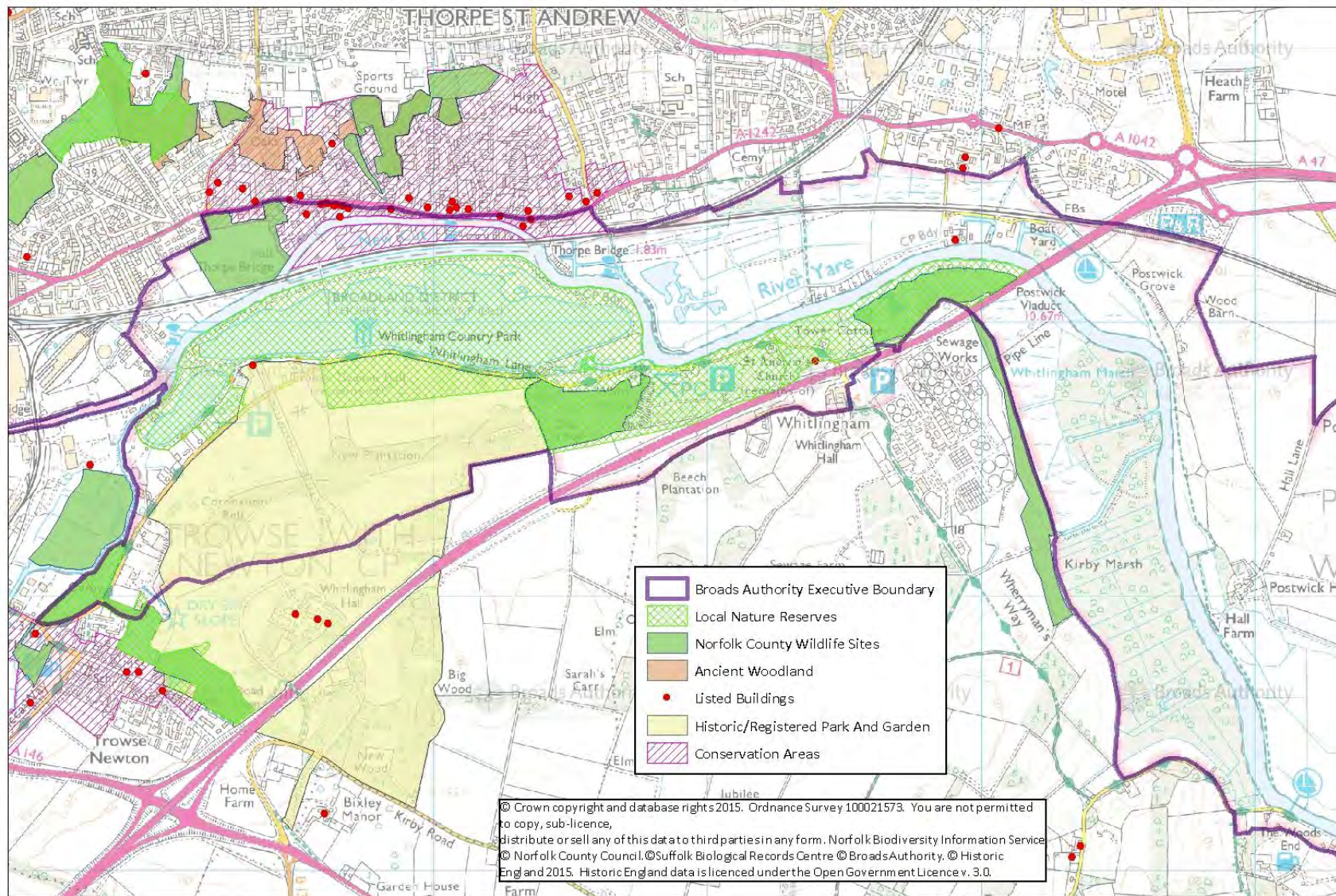
The following maps show landscape features and designations in Areas 10 and 11.





Areas 10 and 11 - Showing Constraints

0 0.1250.25 0.5 Kilometers



## 9.6 Conclusions

If single small and medium wind turbines were placed in the Trowse/Thorpe St Andrew area on the outskirts of Norwich, there would be a moderate impact on **landscape sensitivity**. This means that some of the key characteristics and qualities of the landscape are sensitive to change from this scale of wind energy.

**Wind speeds** in the Trowse/Thorpe St Andrew area could be suitable for wind turbines.

In the Trowse/Thorpe St Andrew area, there are many **existing constraints**. The trees could impact on wind speeds and other constraints, such as the conservation area, nature reserves, water bodies and listed buildings could impact on where wind turbines could be placed in the ground.

The **existing mills** of the Broads theoretically provide an ideal location for generating energy from wind. They are already accepted and treasured features of the landscape, they can be in areas with few objects to impact wind speeds and such a use could bring some mills into a better state of repair. That being said, it could be costly to generate electricity from these mills due to isolation from transmission infrastructure and the cost related to enabling the mills to generate electricity.

In conclusion, whilst being rated as having a moderate sensitivity to single small or medium wind turbines, there will still be an impact on key characteristics and qualities of areas 10 and 11. Coupled with the constraints in the area, allocating area 10 and 11 for wind turbines in the Local Plan is not appropriate.

## 10. Draft Local Plan Policies

### **DP8-Policy x – Renewable Energy**

Renewable energy proposals should be of a scale and design appropriate to the locality and should not, either individually or cumulatively, have an unacceptable impact on the distinctive landscape, cultural heritage, biodiversity or recreational experience of the Broads. The impact of ancillary infrastructure, including power lines, sub-stations, storage buildings, wharves and access roads, will form part of the evaluation. Wherever possible, renewable energy proposals should utilise previously developed sites and result in environmental improvements over the current condition of the site.

#### Reasoned justification

*The NPPG says that ‘When drawing up a Local Plan local planning authorities should first consider what the local potential is for renewable and low carbon energy generation.’*

It is widely acknowledged that tackling the challenges posed by climate change will necessitate a radical increase in the proportion of energy we use that is generated from renewable sources. The UK Renewable Energy Strategy (2009) includes the UK’s legally binding renewable energy target of 15% by 2020. This is part of a wider suite of strategies within the UK Low Carbon Transition Plan. The Authority must ensure that the causes of climate change are addressed at the local level. This will however need to be undertaken within the context of the special circumstances pertaining to the Broads.

A range of renewable energy technologies may be suitable for the Broads, including solar photovoltaic cells, ground and air source heat pumps and wind turbines. However, the sensitivity of the Broads landscape means that large-scale renewable energy developments will generally be inappropriate. In accordance with the NPPF paragraph 97 local planning authorities should ‘design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts’. The NPPF also states that ‘great weight should be given to conserving landscape and scenic beauty in...the Broads...which have the highest status of protection in relation to landscape and scenic beauty.’

Wind turbine developments in particular have the potential to impact significantly on the special character of the Broads. Wind turbines are tall structures that have the potential to detract from the mainly open and low-lying character of the Broads landscape, particularly when they are in large groups or sited in prominent locations. Proposals for wind turbines must therefore be accompanied by a landscape and visual impact assessment, which assesses the impact of the development from a full range of viewpoints, including from the waterways. When considering such proposals, the Authority will take into account: the scale of the wind farm (in terms of turbine groupings and heights); the condition of the landscape; the extent to which topography and/or trees screen the lower part of turbines; the degree of human influence on the landscape; and the presence of strong visual features and focal points. The Authority’s Landscape Character Assessment will be used to assist in assessing the impact of individual proposals.



The operation of the turbines can also adversely affect ecological interests, particularly birds and bats. If a proposal is considered likely to have an effect on internationally designated sites, it will need to be considered in the context of the Conservation of Habitats and Species Regulations 2010 (the Habitats Directive) and a project level Appropriate Assessment undertaken. Development that could affect the integrity of a European site would not be in accordance with Policy CS2 of the Core Strategy.

The Authority will not support proposals for renewable energy development sited outside but close to the Broads boundaries that would have a significant adverse impact on the Broads environment and the special landscape setting and character.

**11. Evidence that has informed this topic paper**

Broads Landscape Sensitivity Study (2012)	<a href="http://www.broads-authority.gov.uk/news-and-publications/publications-and-reports/planning-publications-and-reports/landscape-sensitivity-studies">http://www.broads-authority.gov.uk/news-and-publications/publications-and-reports/planning-publications-and-reports/landscape-sensitivity-studies</a>
Mapped and written guidance in relation to birds and onshore wind energy development in England, Bright et al (2009)	<a href="http://www.rspb.org.uk/Images/EnglishSensitivityMap_tcm9-237359.pdf">http://www.rspb.org.uk/Images/EnglishSensitivityMap_tcm9-237359.pdf</a>
New Opportunities For The Sustainable Management Of Fens: Reed Pelleting, Composting And The Productive Use Of Fen Harvests.	<a href="http://www.broads-authority.gov.uk/_data/assets/pdf_file/0017/416411/New_Opportunities_For_The_Sustainable_Management_Of_Fens_Reed_Pelleting_Composting_And_The_Productive_Use_Of_Fen_Harvests.pdf">http://www.broads-authority.gov.uk/_data/assets/pdf_file/0017/416411/New_Opportunities_For_The_Sustainable_Management_Of_Fens_Reed_Pelleting_Composting_And_The_Productive_Use_Of_Fen_Harvests.pdf</a>
Ren Smart website	<a href="http://www.rensmart.com/Weather/BERR.">http://www.rensmart.com/Weather/BERR.</a>
Broads Landscape Sensitivity Study (2012)	<a href="http://www.broads-authority.gov.uk/news-and-publications/publications-and-reports/planning-publications-and-reports/landscape-sensitivity-studies">http://www.broads-authority.gov.uk/news-and-publications/publications-and-reports/planning-publications-and-reports/landscape-sensitivity-studies</a>
Areas 10 and 11 summary of Landscape Sensitivity Study	<a href="http://www.broads-authority.gov.uk/_data/assets/pdf_file/0005/423797/WindTurbines10,-11-App-3-Part-1.pdf">http://www.broads-authority.gov.uk/_data/assets/pdf_file/0005/423797/WindTurbines10,-11-App-3-Part-1.pdf</a>
Watson, S., Thomson, M., CREST, Loughborough University. Feasibility Study: Generating Electricity from Traditional Windmills Final Report – May 2005	
Clayton, K. The Possibility of Converting Unmanned former Wind-Pumps to Produce Electricity with Computer Control: potential visitor interest and income - May 2005	<a href="http://www.docstoc.com/docs/28114802/The-possibility-of-converting-unmanned-former-wind-pumps-to">http://www.docstoc.com/docs/28114802/The-possibility-of-converting-unmanned-former-wind-pumps-to</a>
Scott, M. Conserving the Drainage Mills of the Norfolk Broads – Assessing the Appropriateness of Adapting the Historic Machinery to Generate Electricity – May 2005	<a href="http://www.docstoc.com/docs/74914883/C_-_Conserving-the-Drainage-Mills-of-the-Norfolk-Broads---Assessing-">http://www.docstoc.com/docs/74914883/C_-_Conserving-the-Drainage-Mills-of-the-Norfolk-Broads---Assessing-</a>

## Retail

Whilst the Broads Authority Executive Area may not include town centres, there are some important shopping areas in the larger villages. Five areas have been identified as having a degree of retail provision:

Location	Description
The Bridge area of Wroxham/Hoveton	Contains tourist related shops, restaurants, banks and some of the Roy's complex of shops. Contains a good range and number of shops capable of meeting most of the day-to-day needs of residents. This centre is of more than purely neighbourhood significance and draws in some shoppers from outside of the immediate community as well as catering for visitors in this important tourist hub. To the north east of this area, North Norfolk District Council allocates the area as a Town Centre.
Potter Heigham Bridge	QD (formerly Latham's) is the largest retail outlet in this area selling every day goods as well as clothes and electrical appliances. There are restaurants, an arcade and tourist/recreation related shops. Contains a good range and number of shops capable of meeting most of the day-to-day needs of residents. This centre is of more than purely neighbourhood significance and draws in some shoppers from outside of the immediate community as well as catering for visitors in this important tourist hub. There are no North Norfolk retail related policies at Potter Heigham Bridge.
Lower Street, Horning	Restaurants, a newsagent, post office, deli and tourist related shops (no supermarket, but a large village). There are no North Norfolk retail related policies in Horning.
Bridge Road, Oulton Broad	Restaurants, newsagents, takeaways (no supermarket, but a large village). The area to the east of this road is classed as a District Shopping Area by Waveney District Council in the Development Management DPD.

Following discussions with Waveney and North Norfolk District Councils, it has been proposed that the authorities will work together with the Broads Authority to produce a consistent retail policy approach between the authorities in relation to the areas listed above.

At the time of writing the Preferred Options version of the Local Plan, Waveney District Council had completed their retail evidence base but were not in a position to draft a policy and North Norfolk District Council had not yet commissioned retail evidence, but were intending to do so in the near future.

As such, there is no draft policy included in the Preferred Options relating to retail. Instead, this policy will be part of the publication version of the Local Plan.

Comments received as part of the Issues and Options consultation.

**Waveney District Council:** The document identifies the Bridge Road shopping area in Oulton Broad as a district shopping centre. With both the Waveney Local Plan and Broads Local Plan being

reviewed at the same time there is an opportunity to ensure a consistent approach is delivered to protect the wider shopping area which straddles both sides of Bridge Road. While it is a single shopping area it is split between two planning authorities.

**South Norfolk Council:** Issue 34: How to address retail issues in the Broads Local Plan: A retail policy is necessary to accord with national policy which directs retail development to defined centres. The absence of a policy would be of concern to South Norfolk Council because of the potential impact unplanned retail development could have on town centres in South Norfolk such as Loddon where we are working hard to retain retail activity, through the Market Town Initiative. South Norfolk Council would support a combination of Options 2, 3, 4, 5 to fulfil the requirements of the NPPF. The policy needs to protect town centres outside the Broads Local Plan Area such as Loddon and engagement with the Loddon and District Business Association on this matter may be beneficial and allow them to represent the feelings of businesses in the area.

**Broadland District Council:**As the NPPF supports a prosperous rural economy it is recommended that a combination of the following options be considered further:

[Agree] Option 2: set primary and secondary frontages

[Agree] Option 3: Retail hierarchy

[Agree] Option 5: Safeguard existing retail units

It is understood that this could involve a retail study. This approach is in line with the NPPF which suggests using a proportionate evidence base.

**Inland Waterways Association:** How to address retail issues in the Broads Local Plan: Option 4 Retail impact assessment requirement. What account is BA going to take of demand- such as hire boaters, outside the area? How is BA going to provide for retail changes through the plan period such as more home delivery of on-line shopping from outside the area which makes existing retail unsustainable, and how might BA try to encourage outlets such as service providers like pubs and restaurants, linked to tourism/ boating?

**Residential Boat Owners Association:** RBOA policy identifies residential moorings in appropriate locations as supporting the local retail centres, particularly out-of-centre developments away from the main tourist areas and outside the main tourist seasons.



Policy x - Water Efficiency

All new/replacement/converted dwellings served by Anglian Water Services will be designed to have a water demand equivalent to 110 litres per head per day.

Reasoned Justification

All new homes already have to meet the mandatory national standard set out in the Building Regulations (125 litres/person/day). The NPPG says:

*Where there is a clear local need, local planning authorities can set out Local Plan policies requiring new dwellings to meet the tighter Building Regulations optional requirement of 110 litres/person/day<sup>1</sup>.*

The NPPG goes on to say that the following sources of information could inform changes to policy relating to water resources:

Document	What it says about the Broads Executive Area
The Water Stressed Areas Classification (Environment Agency, 2013).	The summary table shows that the area of Essex and Suffolk Water and Anglian Water are water stressed.
Essex and Suffolk Water Resource Management plan (2014)	Some of the Broads are in the Northern and Central Water Resource Zone. Demand in the WRZ is heavily influenced by the large population centres of Lowestoft and Great Yarmouth.  Essex and Suffolk Water were contacted to clarify the following. No Water Resource Zones in Essex and Suffolk Water’s area are in deficit. Currently, they are not supportive of 110 l/h/d mainly because of the area not being in deficit but also customer experience of using water facilities and the customer could become frustrated and replace the efficient water fittings. They consider 125 l/h/d to be reasonable
Anglian Water Services Water Resource Management Plan	North Norfolk Coast and Norwich and the Broads Water Resource Zone.  North Norfolk Coast: No deficits are forecast in the North Norfolk Coast RZ. No significant climate change or levels of service sensitivities have been identified. One likely sustainability reduction has been included for a maximum quantity of 1.3Ml/d in 2024/25.  Norwich and the Broads: Large AMP6 deficits are forecast in the Norwich and

<sup>1</sup> The ‘optional’ enhanced national standard is defined within the 2015 Approved Document G, Building Regulations ‘Sanitation, hot water safety and water efficiency’ March 2015, page 15, G2(3). At 2015 this is defined as consumption 110 litres per person per day to be demonstrated  
[http://www.planningportal.gov.uk/uploads/br/BR\\_PDF\\_AD\\_G\\_2015.pdf](http://www.planningportal.gov.uk/uploads/br/BR_PDF_AD_G_2015.pdf)

Document	What it says about the Broads Executive Area
	<p>the Broads RZ. These result from a sustainability reduction and at the end of the forecast period are equivalent to 51.9MI/d under dry year annual average conditions and 57.6MI/d under critical period conditions.</p> <p>Excluding the WFD no-deterioration and worst case climate change risks, the plan for maintaining the supply-demand balance combines source relocation with water efficiency, enhanced metering and additional leakage control. In the long-term, additional supplies will also be required.</p>
Anglia District River Basin Management Plan.	<p>According to some maps, the status of the Broads area varies generally, depending on type of assessment:</p> <ul style="list-style-type: none"> <li>• Groundwater quantitative status – poor.</li> <li>• Abstraction and other artificial flow pressures (rivers) – varies from ‘not at risk’ to ‘probably at risk’.</li> <li>• Abstraction and Flow Regulation - Impact on surface water (groundwater) – at risk.</li> <li>• Abstraction and Flow Regulation - Impact on water balance (groundwater) – probably at risk.</li> </ul>

Another source of information is existing water cycle studies completed by our districts. Further work is likely to be commissioned during 2016.

District	Evidence	Policy
<b>Broadland</b>	WCS (2007) was produced for Norwich, SN, BDC, Norfolk County Council and the Broads Authority. 2015 version of the GNGB Water Efficiency Guidance Note	The study resulted in JCS policy 3 being produced, which set more demanding standards for water efficiency in new development than the Building Regulations. However the government has recently required that the most demanding standards be dropped (former code level 6 i.e. 80 litres per person per day for development as of 500 dwellings+) on the grounds that this approach is too expensive. The policy is still valid for developments of less than 500 dwellings and for all of its other aspects.
<b>Norwich</b>		
<b>South Norfolk</b>		
<b>North Norfolk</b>	Not aware of any evidence.	Core Strategy and Development Management DPD policy relates to Code for Sustainable Homes.
<b>GYBC</b>	The Water Cycle Scoping Study was a stage 1 report and was completed in 2009. This was not taken any further as the issues raised in the Scoping study were not significant to development plans at the time. This did include the Broads Authority Executive Area.	No policy on reducing water usage to 110 l/h/d. General reference to using water wisely.
<b>Waveney</b>		Following the changes to National Policy, Waveney DC have produced a position statement: <a href="http://www.waveney.gov.uk/site/scripts/download_info.php?fileID=6779">http://www.waveney.gov.uk/site/scripts/download_info.php?fileID=6779</a>

Following discussions with Essex and Suffolk Water, it is apparent that they do not consider a need for reducing water consumption to 100 l/h/d. Anglian Water Services however do support this proposed policy.

The policy therefore seeks 110 l/h/d in areas served by Anglian Water Services as shown on map x. New development in the Anglian Water Services area should therefore incorporate measures to minimise water consumption. Water management systems, including grey water recycling and rainwater harvesting, should be incorporated into new development unless proven unfeasible.

The Authority will consider site constraints, technical restrictions, financial viability and the delivery of additional benefits to the Broads where requirements of the policy cannot be met. The Authority will expect developers to make a case on a site by site basis.

### Alternative Options:

#### Comments

At this stage **South Norfolk Council** is happy to support the Broads Authorities desire to explore the potential to reduce water usage in new development beyond Building Regulations with the caveat that water issues are likely to be considered through the Norfolk Strategic Framework. South Norfolk Council would support the consideration of water consumption of non-residential development through the Broads Local Plan as all types of development should be seeking to maximise water efficiency.

**Anglian Water:** It is considered that the New Local Plan should include a revised version of Policy DP3 or a new policy which includes reference to water efficiency standards, sewage treatment, the foul sewerage network and the surface water hierarchy. Please see more detailed comments relating to these issues as set out below. It is noted that the Broads Authority is considering whether to require the optional higher water efficiency standard (110 litres per person per day) for new dwellings. We would support the inclusion of the optional higher water efficiency standard subject to an assessment of financial viability of the whole Local Plan by the Broads Authority. Anglian Water would welcome water efficiency measures being included as a requirement for non-residential development subject to an assessment of financial viability of the whole Local Plan by the Broads Authority

**EA:** As a contribution to securing sustainable development, we would be supportive of the Local Plan seeking the higher water efficiency standard for new residential development. We would also suggest that the promotion of water efficiency for non- residential development should also be considered.

**IWA:** This seems a good idea, and standards for equivalent industries, premises or processes may be suitable for using as 'good practice' which BA might expect to be achieved. Equally, BA could contact local or national water companies to see whether they have standards which could be applied. Care will be needed to ensure the effect is not to simply accelerate the closure of businesses.

### Sustainability Appraisal Summary

#### Evidence used to inform this section

#### Monitoring Indicators

**Policy X: Water Quality**

Development will only be permitted where it can be demonstrated that it will not have an adverse impact on waterbodies, including surface and ground water, in terms of quality and quantity. This should include the requirements of the Water Framework Directive and Habitats Regulations.

Applicants are required to demonstrate there is adequate sewage treatment provision to serve the development or that this can be made available in time for the commencement of the development and demonstrate that there is available capacity within the foul sewerage network or that capacity could be made available.

Development is required to be connected to a foul sewer unless proven not to be appropriate. If connection to a foul sewer is proven to be inappropriate, only then will other arrangements of package sewerage treatment works and septic tanks be considered and only in that order. These will only be permitted if the Authority is satisfied that these systems will work for the expected use and there would be no harmful effects on the environment.

The Authority encourages proposals to consider the use of reed beds as a filtration system to remove nutrients before the waste water from small sewage treatment plants, package treatment works and septic tanks enters waterbodies.

All new development and replacement buildings generating foul water and extensions increasing occupancy are required to submit a foul drainage assessment with applications.

Extensions that increase occupancy are required to improve the existing method of drainage of the entire property if appropriate.

To ensure the protection of designated sites, no new development requiring connection to the public foul drainage system within the Horning Knackers Wood Catchment, is allowed to take place until it is confirmed capacity is available within the foul sewerage network and at the Water Recycling Centre to serve the proposed development.

Reasoned Justification

The water bodies and wetland environments of the Broads are particularly sensitive to water pollution. Diffuse pollution, including from sewage treatment, is an increasing problem for the Broads. This has the potential to have a detrimental impact on water quality and biodiversity and thereby adversely affect the Authority's ability to meet its obligations under the Water Framework Directive and Natural Environment and Rural Communities Act 2006.

This policy applies to new build as well as replacement dwellings and extensions. In the case of replacement dwellings, the current foul water drainage system is expected to be improved in line with Government Guidance, with the ultimate aim being to connect to the public sewer. The policy

also requires betterment for an entire property as a result of an extension that will increase the occupancy of the building. By increasing the occupancy it is likely that there will be more foul water generated. The works associated with an extension or replacement to a building provides an opportunity to improve the foul water drainage system.

Government guidance contained within the National Planning Practice Guidance<sup>1</sup> sets out a hierarchy of drainage options that must be considered and discounted in the following order:

1. Connection to the public sewer
2. Package sewage treatment plant
3. Septic Tank

Due to the low lying nature of the area and remoteness of some settlements connection to a public sewer is not always possible in the Broads. The alternative non-mains drainage proposals, including the use of septic tanks, can have an adverse effect on the quality of controlled waters, the environment and amenity, particularly if the dwelling is close to watercourses, there is a high water table at any point of the year or if the site is susceptible to flooding.

To minimise the likelihood of development having an adverse impact on water resources, new development will only be permitted if it can be properly serviced. If an application proposes to connect a development to the existing drainage system, details of the existing system are expected to be provided and confirmation provided that sufficient capacity exists. If the development would necessitate any alterations to the system or the creation of a new system, detailed plans of the new foul drainage arrangements must also be provided. The costs of providing these systems will, where appropriate, fall on the developer. Anglian Water will have the responsibility for the provision and adoption of any new foul sewers provided as part of a new development.

Where development involves the disposal of trade waste or the disposal of foul sewage effluent other than to the public sewer, a foul drainage assessment will be required to demonstrate why the development cannot connect to the public mains sewer system and to provide details of the method of effluent storage, treatment and disposal. The statement should include a thorough examination of the impact of disposal of the final effluent, whether it is discharged to a watercourse or disposed of by soakage into the ground. An Environmental Permit or exemption will be required from the Environment Agency if it is proposed to discharge treated sewage effluent to controlled waters or ground. Further guidance on the information that should be incorporated into this statement is available on the EA website<sup>2</sup>. Where development proposes non-mains drainage, early liaison with the Environment Agency is expected.

With regards to reed bed filtration systems, this is a more natural way of treating sewerage which provides habitat as landscape benefits as well as being a low energy and low carbon option. Whilst it may take more space than other treatment options, the end discharge from a reed bed system could be similar and when combined with other methods, could be even better quality than other methods on their own.

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<sup>1</sup> <http://planningguidance.communities.gov.uk/blog/guidance/water-supply-wastewater-and-water-quality/water-supply-wastewater-and-water-quality-considerations-for-planning-applications/>

<sup>2</sup> <https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits>

Horning Knackers Wood Water Recycling Centre discharges to the River Bure and contributes nutrient loads to the downstream watercourses as well as the Bure Broads and Marshes Site of Special Scientific Interest (SSSI), a component of the Broads Special Area of Conservation (SAC)/ Broadland Special Protection Area (SPA). Restrictions on development without benefit of adequate mains sewerage are added on the advice of the Environment Agency in light of the potential for harm to nearby environmentally designated sites and the current shortcoming of the mains sewerage in the locality.

Both Anglian Water and the Environment Agency agree that the Horning Knackers Wood Water Recycling Centre (WRC) does not currently have capacity to accommodate further foul flows. Anglian Water Services (AWS) have undertaken investigations to identify why the WRC is receiving excessive flows. This work has indicated infiltration from groundwater into the sewer network as the main reason. AWS have developed a scheme to address the infiltration, and by relaying and relining sewers should resolve the issue and provide modest capacity for further foul flows. This scheme was completed in March 2015 and was monitored for a subsequent period of 12 months to assess the efficacy of the scheme and whether there is capacity to accept additional flows.

Comments received as part of the Issues and Options:

**AWS:** Policy DP3 – Water Quality and Resources refers to a connection to a foul sewer being the preferred option for new development unless it is proven that this is not appropriate. Where there are no public foul sewers within the area it is open to residents to make a ‘Section 101A’ application to Anglian Water which is for the provision of a new public sewer. This is typically done at the village scale. There is an application process for this which can take up to four months<sup>3</sup>.

Where it is proposed that a connection will be made to a public sewer the New Local Plan should include a requirement to demonstrate there is adequate sewage treatment to serve the development or that this can be made available in time for the development. It would also be helpful if the New Local Plan included a policy which required applicants to demonstrate that there is available capacity within the foul sewerage network or that capacity could be made available.

**EA:** While many of the activities mentioned such as abstractions and discharges into waters may need permits from the Environment Agency, other activities or those of a smaller scale will not. It is important that the Plan includes an appropriately robust framework to ensure that these issues are appropriately addressed through planning.

The Water Framework Directive (WFD) is mentioned here, but there are also other relevant directives that will need to be taken into account, such as the Habitats directive protecting sensitive areas such as SACs and SPAs.

As the Plan preparation progresses, all opportunities to protect and improve water quality should be considered.

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<sup>3</sup> Further information is available here:

[www.anglianwater.co.uk/assets/media/your\\_guide\\_to\\_first\\_time\\_sewerage\\_v4\(1\).pdf](http://www.anglianwater.co.uk/assets/media/your_guide_to_first_time_sewerage_v4(1).pdf).

Diffuse water pollution plans have been written. These address those Broads that are not in 'favourable condition', as defined by Natural England, where this is thought to be due to diffuse pollution. The plans attribute actions to help improve water quality and habitats. The Local Plan should also acknowledge these and seek to contribute to the actions within them where appropriate.

We would also highlight that addressing rural runoff from verge erosion can help in reducing diffuse pollution. Soil pulled off fields onto roads by inappropriate passing places contributes sediment and often phosphate (a nutrient) to the local watercourses. These can have a negative impact on the water quality. Working with the highways departments of local councils and developers to identify and resolve these issues as part of development proposals would help improve water quality. For example, there may be an opportunity to require the construction of metalled passing places if traffic will increase as a result of development.

We would support an approach that highlighted the hierarchy of preferred treatment methods and also gave advice on the suitability and maintenance of non-mains systems. We do have some concerns over the inclusion of reed bed filtration systems. Whilst they can provide a very useful polishing for treatment plant effluent, we are less certain that they can always clean effluent adequately on their own. Given the sensitivity of the Broads, the role of such systems should be carefully considered.

**RSPB:** Tertiary treatment of waste water has been a long standing discussion in The Broads. It is the RSPB's understanding that there are current technological limitations to improving effluent discharge to the rivers and reedbeds as an additional filtration system may provide a solution to helping meet Water Framework Directive, Natura 2000 and SSSI targets. The development of additional reedbed habitat could deliver multiple benefits, especially helping to maintain and enhance ecological networks and landscape character.

### Sustainability Appraisal Summary

Preferred Option: xx

No policy: xx

More detailed and prescriptive policy: xx

### Evidence used to inform this section

### Monitoring Indicators