



Evidence Mapping

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1. Introduction

- 1.1 As part of the Local Plan process a desk top mapping study has been carried out to compile maps of the District showing designated sites of environmental and historic importance, flooding, noise, air pollution as well as the spread of Doctors surgeries and bus stops.
- 1.2 This mapping exercise shows constraints and opportunities that build up a number of geographical layers to produce a visual representation of areas that show less or more potential for growth.
- 1.3 It is important to note that this is an information exercise only. No decision regarding the direction for growth has been made. Even if an area may seem to have a number of designations this does not automatically rule out growth, growth can, in some instances, help a designated site to be enhanced and improved with the use of mitigation.
- 1.4 When looking at the potential spread of housing and employment in the District it is important to have a picture of all the information we hold. This information has been shown on maps to enable the reader to see how the designations etc. are located within the District. This report will form part of the local plan evidence base.
- 1.5 As part of this process meetings took place with ECC Ecology team, ECC Historic Environment team, Natural England, Historic England and Essex Wildlife Trust. Meeting notes can be found in appendix 3. During these meetings discussions took place regarding all the mapping data we currently hold, any gaps in this data and how best to use and display it. These consultees will be consulted with throughout the plan process.
- 1.6 Throughout the document reference is made to a number of studies, these can be viewed at www.uttlesford.gov.uk/backgroundstudies.
- 1.7 To enable a clear view of the designations in Uttlesford some of the maps have split the District into 6 mapping areas as shown in appendix 1. These mapping areas have been chosen to broadly reflect the Areas of Search.

2. Natural Environment Designations (Maps 1A-1F)

- 2.1 Local Plans have the potential to affect biodiversity of an area, outside as well as inside the designated area of importance for biodiversity. A strategic approach should be taken to protect and enhance the natural environment in

Local Plans in accordance with local evidence. It is also important to recognise that well planned development proposals could have a positive impact on biodiversity and help improve designated sites. The Planning Practice Guidance emphasises this point in paragraph 008 Ref:8-008-20140306:

Equally they should consider the opportunities that individual development proposals may provide to enhance biodiversity and contribute to wildlife and habitat connectivity in the wider area.'

2.2 The NPPF stresses the importance of protecting and conserving the natural environment, paragraph 17 bullet point 7: and also biodiversity in paragraph 118 bullet point 1:

'Contribute to conserving and enhancing the natural environment and reducing pollution. Allocations of land for development should prefer land of lesser environmental value, where consistent with other policies in this Framework'

If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, than planning permission should be refused..'

2.3 However, the NPPF also recognises that sites designated for their environmental importance are not a total constraint on development. This is clearly stated in paragraph 113:

'Local Planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged. Distinctions should be made between the hierarchy of international, national and locally designated sites, so that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks.'

2.4 Environmental designations can be split into two categories:

- Statutory designations
- Non-statutory designations

Statutory Designations

2.5 Statutory designated sites are those sites which are protected by law. They represent England's finest landscapes and the best of wildlife. Their conservation and enhancement secures vital elements of our natural and cultural heritage.

2.6 Statutory designations consist of the following:

- Sites of Special Scientific Interest (SSSIs)
- National Nature Reserves
- Metropolitan Green Belt

Sites of Special Scientific Interest

2.7 There are 12 SSSI's located within the District and four SSSIs which, whilst outside the District boundary, abut it and therefore impact upon these should also be considered.

2.8 Sites of Special Scientific Interest (SSSIs) are protected by law to conserve their wildlife or geology. Natural England holds responsibility for identifying and protecting SSSIs in England under the Wildlife and Countryside Act 1981 (as amended)

2.9 Most SSSI's are privately owned or managed; others are owned or managed by public bodies or non-government organisations.

2.10 Public bodies must take reasonable steps to conserve and enhance the special features of SSSIs both when carrying out statutory duties and when giving others permission for works, e.g. planning applications.

2.11 The potential impact on the SSSI must be assessed before development can be approved, methods which cause as little damage as is reasonably practicable must be used and ensure the site can be restored to its former condition, where practicable, if works do cause damage.

2.12 The NPPF highlights the importance of SSSI's in paragraph 118 bullet point 2:

"When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:.....

- *Proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the special scientific interest and any broader impacts on the national network of Sites of Special Scientific Interest.....*

National Nature Reserve

2.13 There are 2 National Nature Reserves in the District, Hales Wood near Ashdon and Hatfield Forest. National Nature Reserves are sites of outstanding wildlife or geological importance managed by, or on behalf of Natural England. They are declared by Natural England under the National Parks and Access to the Countryside Act 1949 or the Wildlife and Countryside Act 1981.

Non Statutory Environmental Designated Sites

2.14 There are a number of non-statutory designations, mostly designated by local authorities in the development plans. They are selected under locally developed criteria and are a material consideration in the planning application process. Non-statutory sites include Ancient Woodlands, Important Woodlands and Local Wildlife Sites.

2.15 They are sites which, whilst are recognised for their importance, are not protected by law.

Local Wildlife Sites

2.16 There are 280 locally important nature conservation areas which are designated as Local Wildlife Sites in the District. Many of these are ancient woodlands there are also good examples of grassland habitats. Local Wildlife Sites are usually selected by the relevant Wildlife Trust, along with representatives of the local authority and other local wildlife conservation groups.

Ancient Woodland and Important Woodland

2.17 Important Woodland designations are local designation which officers deemed important due to their landscape value. There are 177 Important Woodlands in the District.

2.18 Ancient Woodlands are a national designation and the best examples are protected by SSSI and other statutory status, however the remainder are not protected by statute.

2.19 There are 119 Ancient Woodlands in the District, 11 of which are protected by SSSI status. Ancient Woodland is any wooded area that has been wooded continuously since at least 1600 AD. It includes:

- Ancient semi-natural woodland mainly made up of trees and shrubs native to the site, usually arising from natural regeneration

- Plantations on ancient woodland sites areas of ancient woodland where the former native tree cover has been felled and replaced by planted trees, usually of species not native to the site

2.20 The NPPF paragraph 118 bullet point 5 recognises the importance of ancient woodland:

'planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland, unless the need for, and benefits of, the development in that location clearly outweighs the loss...'

Protected Lanes and Special Verges

2.21 There are 118 Protected Lanes in the District. In 2012 ECC Historic Environment Team were commissioned by UDC to undertake an assessment of the Districts Protected Lanes.

2.22 There are 42 Special Verges in the District which are protected for their flora.

3. Historic Designations (Map 2A-2F)

3.1 Uttlesford has a rich historic environment. Some of the form is hidden in the form of archaeological deposits; other elements are highly visible, such as the historic landscape. The built part of the historic environment is rich in towns, villages and hamlets. There is a wealth of fine buildings, many of which are listed.

3.2 Protecting and enhancing the historic environment is an important component of the NPPF drive to achieve sustainable development. The appropriate conservation of heritage assets forms one of the 'Core Planning Principles' that underpins the planning system. The NPPF stresses the importance of conserving the historic environment in paragraph 126:

'Local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. In doing so, they should recognise that heritage assets are an irreplaceable resource and conserve them in a manner appropriate to their significance. In developing this strategy, local planning authorities should take into account:

- *The desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;*
- *The wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;*
- *The desirability of new development making a positive contribution to local character and distinctiveness; and*
- *Opportunities to draw on the contribution made by the historic environment to the character of a place.*

And paragraph 132:

When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.'*

3.3 Evidence mapping for historic designations include:

- Historic Parks and Gardens
- Listed Buildings
- Conservation Areas
- Ancient Monuments
- Geological Sites

Historic Parks and Gardens

3.4 There are 15 registered Historic Parks and Gardens in the District. The Register of Historic Parks and Gardens of special historic interest in England provides a listing and classification system for historic parks and gardens similar to that used for listed buildings. The register is managed by Historic England under the provisions of the National Heritage Act 1983.

Listed Buildings

3.5 There are over 3700 Listed Buildings or structures in the District. This represents about one quarter of the number of listed buildings in Essex which is itself one of the most richly endowed of all English counties.

3.6 The Planning (Listed Buildings and Conservations Areas) Act 1990 provides specific protection for buildings and areas of special architectural or historic interest.

3.7 Listed buildings have not been shown on the maps due to the scale they would not be visible.

3.8 The NPPF recognises the importance of conserving and protecting listed buildings in paragraph 132, as referenced above.

Conservation Areas

- 3.9 There are 37 individual Conservation Areas in the District. They are designated for their special architectural and historic interest. Conservation Areas are designated by the local authority; Uttlesford DC has recently completed conservation area appraisals for all 37 of its Conservation Areas.
- 3.10 The Planning (Listed Buildings and Conservations Areas) Act 1990 provides specific protection for buildings and areas of special architectural or historic interest.
- 3.11 The NPPF recognises the importance of Conservation Areas in paragraph 132, as referenced above.

Ancient Monuments

- 3.12 There are 70 Scheduled Ancient Monuments in the District. Scheduled Ancient Monuments are a selection of nationally important archaeological sites, which would benefit from close management. Scheduling derives its authority from the Ancient Monuments and Archaeological Areas Act 1979.

Geological Sites

- 3.13 There are 24 Geological sites in the District. These are sites that are considered worthy of protection for their educational, research, historical or aesthetically importance.
- 3.14 paragraph 117 bullet point 4 of the NPPF states:

“To minimise impacts on biodiversity and geodiversity, planning policies should:

- *Aim to prevent harm to geological conservation interests.....”*

- 3.15 Due to the scale of the maps Geological sites are not shown.

Historic Military Airfields

- 3.16 There are 6 historic military airfields in Uttlesford:
- Andrewsfield Stebbing
 - Easton Lodge Great Dunmow
 - Hadstock
 - Debden
 - Great Sampford
 - Stansted

Undesignated Archaeological Sites

- 3.17 Essex County Council also holds information on undesignated archaeological sites. There are approximately 4500 records specifically related to sites in Uttlesford which range from major landscapes through to chance finds. This data is not mapped due to the number of sites; however, discussions at a later stage in the plan making process will take place with Essex Historic Environment Team regarding these sites.

4. Flooding (Map 3A-3F)

Flood Zones

- 4.1 Land is graded by zones, with Zone 1 having the lowest probability of flooding and Zone 3 the highest. Just over 96% of the District lies within Flood Zone 1.
- 4.2 The NPPF states that inappropriate development in areas at risk of flooding should be avoided, but where it is necessary making it safe without increasing flood risk elsewhere.
- 4.3.1 The Technical guidance to the NPPF covers flood risk and paragraph 5 states:

'The overall aim should be to steer development to Flood Zone 1. Where there are no reasonably available sites in Flood Zone 1, local planning authorities allocating land in local plans or determining planning applications for development at any particular location should take into account the flood risk vulnerability of land uses and consider reasonably available sites in Flood Zone 2, apply the Exception Test if required. Only where there are no reasonably available sites in Flood Zones 1 or 2 should the suitability of sites in Flood Zone 3 be considered, taking into account the flood risk vulnerability of land uses and applying the Exception Test if required.'

Surface Water Flooding

- 4.4 Surface water flooding happens when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.
- 4.5 The surface water flooding map assesses flooding scenarios as a result of rainfall with the following chance of occurring in any given year (annual probability of flooding is shown in brackets):
- 1 in 30 (3.3%)
 - 1 in 100 (1%)
 - 1 in 1000 (0.1%)

Groundwater Source Protection Zones

4.6 Groundwater is at risk from both point source pollution (a leaking oil storage tank, petrol station) and diffuse pollution (fertilisers leaching from lane). The Water Framework Directive provides for a range of measure to protect groundwater quality and has led to setting up protected areas for groundwater including source protection zones.

Some activities represent a particular hazard to groundwater due to a combination of the activity type, its duration and the potential for failure of measures taken to mitigate impacts.

4.7 There are 22 Source Protection Zones in Uttlesford. These zones show the risk of contamination from any activities that might cause pollution in the area. The closer the activity, the greater the risk.

4.8 The shape and size of zone depends on the condition of the ground, how the groundwater is removed and other environmental factors.

4.9 The maps show three zones:

- Zone 1 – This zone has a minimum radius of 50 metres
- Zone 2 – This zone has a minimum radius of 250 or 500 metres around the source
- Zone 3 – Defined as the area around a source within which all groundwater recharge is presumed to be discharged at the source.

5.0 Air Quality (Map 4A District Area)

5.1 Improving air quality is largely driven by EU legislation. The 2009 Ambient Air Quality Directive sets legal limits for concentrations in outdoor air of major air pollutants that impact public health.

5.2 The spatial planning system has an important role to play in improving air quality and reducing exposure to air quality issues, it has a role to play so that any likely scheme impacts are reasonably mitigated. The NPPF states that development should not be affected by air pollution in paragraph 109, bullet point 4:

'Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability...'

Poor Air Quality Zones

- 5.3 There are poor air quality zones along the M11 (100 meters on either side of the central reservation) and the A120 (35 metres either side). These zones have been defined by Uttlesford's Environmental Health and the levels are checked regularly. Adopted local plan policy ENV13 has restricted development, specifically residential, in these zones. These are not shown on a map as they just follow the road network of the A120 and M11.

Air Quality Management Area

- 5.4 A large area within Saffron Walden is designated as an Air Quality management area (AQMA) because of poor air quality resulting from high levels of nitrogen dioxide at particular road junctions. Paragraph 124 of the NPPF states:

Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.

6.0 Waste and Minerals (Maps 5A, C, D and E)

- 6.1 Essex County Council are the Waste and Minerals planning authority, however, Uttlesford must take account of the allocations within the Waste and Minerals Plan when planning development in the District.

Mineral Safeguarding Areas

- 6.2 Minerals Safeguarding Areas are a way of protecting proven deposits of minerals which are, or may become, of economic value. They help to restrict non-mineral related development which would compromise the extraction of the mineral deposit in the future.
- 6.3 There are 6 Minerals Safeguarding Areas in the District.
- 6.4 The NPPF recognises the importance of MSA in paragraph 143, bullet point 3:

'define Minerals Safeguarding Areas and adopt appropriate policies in order that known locations of specific minerals resources of local and national importance are not needlessly sterilised by non-mineral development, whilst not creating a presumption that resources defined will be worked; and define Minerals Consultation Areas based on these Minerals Safeguarding Areas;'

Waste Sites

6.5 Waste sites are allocated in the Essex Waste Local Plan 2001. The Replacement Waste Local Plan was recently out on consultation which included site allocations. Maps 5A, C, D and E show waste sites which have planning permission.

7.0 Agricultural Land Classification (Map 6 district wide)

7.1 The Agricultural Land Classification provides a method for assessing the quality of farmland to enable informed choices to be made about its future use within the planning system.

7.2 There are five grades, with Grade 3 subdivided into 3a and 3b. The best and most versatile land is defined as Grades 1, 2 and 3a. This is the land which is most flexible, productive and efficient which can best deliver future crops for food and non-food uses.

7.3 The District contains significant amounts of Grade 2 (very good quality) agricultural land. The implications of losing high grade agricultural land are recognised in the NPPF, paragraph 112:

'Local planning authorities should take into account the economic and other benefits of the best and most versatile agricultural land. Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality.'

8.0 Landscape Character Assessment (Map 7 district wide)

8.1 In 2006 Uttlesford published a Landscape Character Assessment which is used to inform planning decisions. The assessment provided a description of landscape character by type, identified key issues, sensitivities to change and management objectives.

8.2 There are four river valley landscape areas identified in the District all of which are classed as having high sensitivity to change. The key characteristics of River Valley Landscapes are:

- V-shaped or u-shaped landform which dissects Boulder Clay/Chalky Till plateau
- Main river valley served by several tributaries
- Flat or gentle undulating valley floor
- Intimate character in places
- Wooded character in places

8.3 There are 12 identified Farmland Plateaus five of which have been identified as having sensitive to change, four are moderate to high, two moderate and

one low to moderate sensitivity to change. The main characters of these areas are:

- Elevated gently rolling Boulder Clay/Chalky Till plateau landscape which is incised by river valleys
- Network of winding lanes and minor roads
- Medium to large scale enclosed predominantly arable fields
- Long distance views across valets from certain locations
- Well wooded in places (with several areas of semi-natural and ancient woodland)

8.4 Four Chalk Upland Landscapes have also been identified, two of which have high sensitivity to change and two have been classed as moderate to high sensitivity. Their characteristics are:

- Strongly rolling landform of broad roundbacked ridges
- Large scale arable farmland
- Distinctive elevated, expansive and generally open character
- Panoramic views from ridgetops
- Dispersed blocks of woodland and isolated copses
- Sparse settlement pattern, small linear villages alongside stream courses, and hamlets with greens

9.0 Stansted Airport (Maps 8 and 9)

Public Safety Zones (Map 8)

9.1 Aircraft can take off and land on Stansted's single runway in either direction. At both ends of the runway the Civil Aviation Authority maintains a Public Safety Zone (PSZ), which is based on risk contour mapping. PSZ policy is set out in Department for Transport Circular 1/2010. The PSZ comprise two risk contours as shown on map 8. Within a PSZ there is a general presumption against most new development.

9.2 The 1:100,000 contour is the part of the PSZ where the theoretical risk of an individual residing permanently being killed by an aircraft is greater than 1:100,000. Within the 1:10,000 contour this theoretical risk is increased and only a few non-residential or non-workplace are likely to be acceptable. Within the 1:10,000 contour, an airport operator is required to make an offer to purchase property, with such offers being kept open indefinitely.

Aircraft Noise (Map 9 Day and Map 9 Night)

9.3 Aircraft movements are a major source of noise in the District. Map 9 shows the actual day and night contours for Stansted Airport in 2013.

9.4 Noise exposure is shown on the map as a series of stepped contours in 3dBA increments. The 57 dBA level denotes the approximate onset of significant community annoyance during the day (07:00 – 23:00 BST), although individual tolerance to noise does vary and noise is more acutely felt at night.

10.0 Metropolitan Green Belt (Map 15)

10.1 The Metropolitan Green Belt (MGB), situated in the south west of the District, covers only 6% of the Uttlesford. The fundamental aim of Green Belt policy is to prevent urban sprawl. Government policy is to steer development away from the Green Belt except in very special circumstances.

10.2 The NPPF emphasises the important role the MGB plays and sets out its five purposes:

- To check the unrestricted sprawl of large built-up areas;
- To prevent neighbouring towns merging into one another;
- To assist in safeguarding the countryside from encroachment;
- To preserve the setting and special character of historic towns; and
- To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

10.3 However, local planning authorities need to, as part of their evidence base, carry out a Green Belt assessment to assess the need and appropriateness of their Green Belt. A Green Belt assessment will be necessary to enable the Council to identify sufficient land to meet future housing requirements.

11.0 Other Mapping

11.1 When preparing a local plan it is important to have an understanding of other factors in the plan area, such as population and access to services.

Population (Map 11 District Wide)

11.2 The District has a population of 79,443 (2011 census). To show the spread of population in the District by Parish please refer to Map 11.

11.3 The highest concentration of population is in Saffron Walden followed by Great Dunmow and then Stansted Mountfitchet Parish.

11.4 The population of the District has grown by 13% since 2001.

Doctors Surgeries (Map 12 District Wide)

11.5 There are 13 Doctors surgeries in Uttlesford. According to the NHS Service Search website all of them are accepting new patients.

Bus Stops (Map 13 District Wide)

- 11.6 There are a number of bus stops spread across the District. The bus services offered vary from one to location to another. In some rural areas of the District there is no service at all, where as in other villages, for example Thaxted has 5 different buses travelling through at different times of the week.
- 11.7 In a rural District such as Uttlesford which has high car dependency access to good public transport is crucial to help create a more sustainable communities.
- 11.8 The NPPF stresses the importance of public transport in paragraph 17 bullet point 11 of the Core Planning Principles:

“actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable; ...”

12.0 Summary

- 12.1 This report gives a broad overview of all the mapping information and data that we hold at present, and over time as new data is collected this will also be mapped and used to help inform and guide decision making.
- 12.2 At this stage it is not being used to make any decisions regarding the location of development. However, at a later stage in the Local Plan process this evidence mapping will help us understand potential constraints and potential for enhancements/ improvements when looking at specific sites and the environmental designations and infrastructure that are located nearby.