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Bramford to Twinstead Reinforcement

Volume 6: Environmental Information

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Approach and Identification of Setting Study

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1. Introduction

1.1 Overview

- 1.1.1 This report considers the ‘setting’ of the Dedham Vale Area of Outstanding Natural Beauty (AONB) in the context of the proposed Bramford to Twinstead Reinforcement (‘the project’). The document has been produced to accompany the Environmental Statement (ES) as part of the application for development consent.
- 1.1.2 Its purpose is to identify areas of the landscape considered to be part of the ‘setting’ of the northern part of the AONB in the vicinity of the project, in order to inform the assessment of effects of the project on the defined natural beauty of the Dedham Vale AONB. This is particularly where views from or to the designated landscape are identified as important, or where the landscape character of land within and adjoining the AONB complements that of the adjacent designated area.
- 1.1.3 National Grid has a ‘duty of regard’ under the Countryside and Rights of Way Act 2000 (CROW Act) and planning policy to consider AONB when routeing, designing and assessing electricity transmission infrastructure. This duty also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. Further details can be found in ES Chapter 2: Regulatory and Planning Policy Context (**application document 6.2.2**).
- 1.1.4 Paragraph 5.9.9 of the Overarching National Policy Statement (NPS) for Energy (EN-1) (Department of Energy and Climate Change (DECC), 2011a), states that *‘National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty’*. Paragraph 5.9.12 states that *‘the duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid compromising the purposes of the designation.’*
- 1.1.5 No detailed judgements are made within this report as to the level of effects of the project on the AONB or its setting; this is reported in ES Chapter 6: Landscape and Visual (**application document 6.2.6**).
- 1.1.6 This report has been reviewed by Natural England and the Dedham Vale AONB and Stour Valley Partnership and this version addresses comments made in October 2022.

1.2 Background

- 1.2.1 Areas of Outstanding Natural Beauty are nationally designated for the purpose of ensuring that the natural beauty of the finest landscapes in England and Wales are conserved and enhanced when authorities are making decisions or carrying out activities relating to/or affecting land within these areas. In policy terms they are accorded the highest status of protection, for example paragraph 5.9.9 in the Overarching NPS for Energy (EN-1) (DECC, 2011a). The NPS for Electricity Networks (EN-5) (DECC, 2011b) states at paragraph 2.8.9 that when deciding on overhead or underground options the Infrastructure Planning Commission (now the Planning Inspectorate) should consider *‘the landscape in which the proposed lie will be set’*.

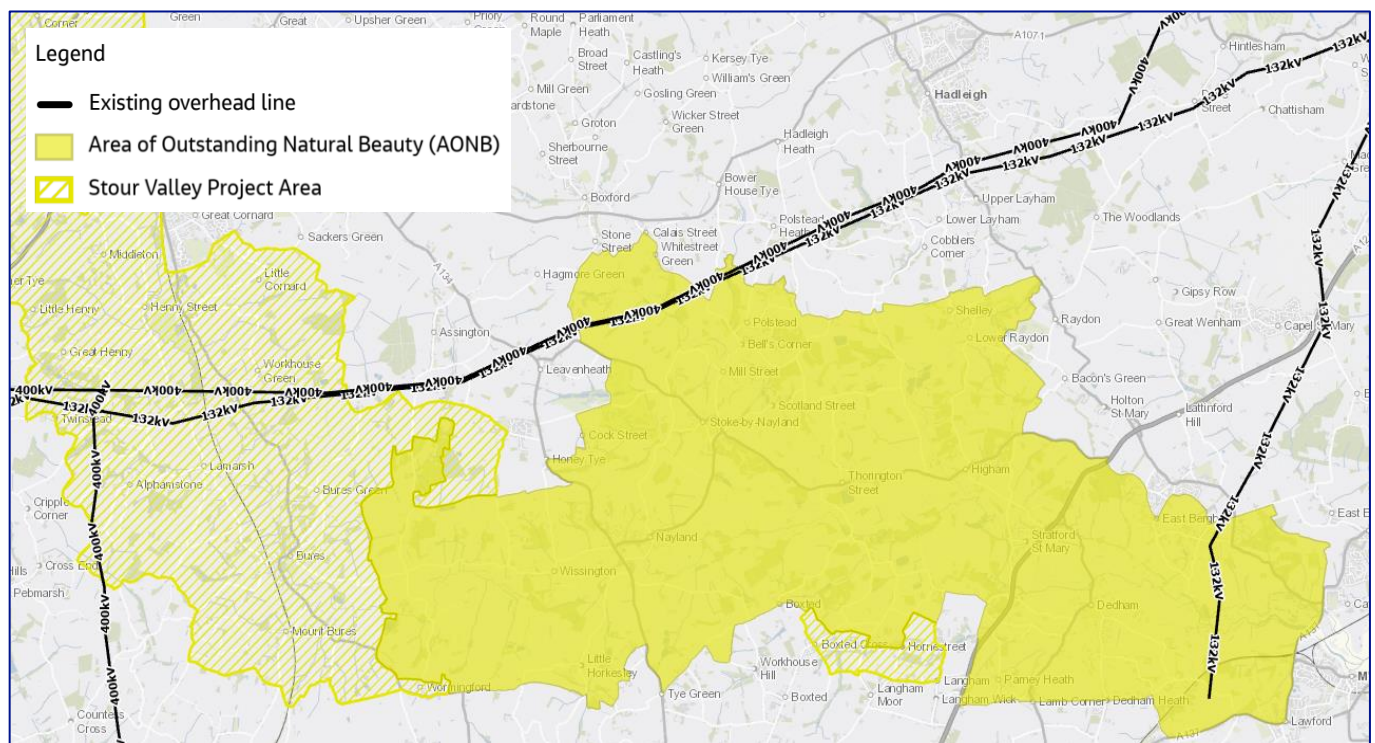
1.2.2 The revised National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government (MHCLG), 2021)) also introduced a new clause (paragraph 176) that development within the setting of designated landscapes should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas. In introducing this clause, the NPPF is clear that it is not the setting itself that is being protected but the impact of any changes on the designated area. The key issue is whether the proposed change beyond the boundary compromises the statutory purposes of the designation (i.e., the conservation and enhancement of natural beauty).

1.3 Dedham Vale AONB and the Stour Valley Project Area

Existing Baseline

1.3.1 The locations of the Dedham Vale AONB and Stour Valley Project Area (SVPA) are illustrated on Figure 1.1 in relation to the existing overhead electricity transmission network.

Figure 1.1 – Dedham Vale AONB and Stour Valley Project Area



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1.3.2 Dedham Vale AONB was designated to conserve and enhance the natural beauty of the landscape and increase the awareness and understanding of its special qualities. The River Stour is the key landscape focus for the valley, its course being defined by river-bank trees, water meadows and a wide variety of wildlife habitats. Much of the eastern end of the AONB is associated with the celebrated landscape artist, John Constable, and many of the views he painted remain recognisable today.

1.3.3 The landscape of the area is described in Natural England's National Character Assessment 86 (Natural England, 2014b), the summary of which states:

'It is an ancient landscape of wooded arable countryside with a distinct sense of enclosure. The overall character is of a gently undulating, chalky boulder clay plateau, the undulations being caused by the numerous small-scale river valleys that dissect the plateau. There is a complex network of old species-rich hedgerows, ancient woods and parklands, meadows with streams and rivers that flow eastwards.

Traditional irregular field patterns are still discernible over much of the area, despite field enlargements in the second half of the 20th century. The widespread moderately fertile, chalky clay soils give the vegetation a more or less calcareous character. Gravel and sand deposits under the clay are important geological features, often exposed during mineral extraction, which contribute to our understanding of ice-age environmental change.'

- 1.3.4 The SVPA largely lies to the northwest of the AONB and includes the mid and upper part of the Stour Valley. It extends across the Essex/Suffolk border from the western boundary of the AONB near Bures to Great Bradley on the Cambridgeshire border. It extends 3km to 4km either side of the River Stour with extensions along the Bumpstead Brook, Belchamp Brook and River Glem. The origins of the SVPA date to the 1970s and are based on the constituent local authorities desire to protect the area from inappropriate development by gaining AONB status.

The AONB Partnership and Proposed Extension to the AONB

- 1.3.5 To ensure the efficient and co-ordinated management of the AONB and SVPA, a Joint Advisory Committee and Partnership (the Partnership) was formed in 1993 and is made up of a diverse range of organisations with an interest in the area. It works together to support the conservation and enhancement of the environmental, economic, and social wellbeing of the area. The Partnership produces a Management Plan (see Section 2.3 for further details) every five years on behalf of the relevant planning authorities that operate across the Protected Landscape. This sets out the special characteristics and qualities of the Dedham Vale AONB and SVPA and formulates the local authorities' policies for its management and for carrying out their functions in relation plan-making and decision taking as part of development management.
- 1.3.6 Since 2009, the Partnership has had an aspiration to extend the Dedham Vale AONB to cover parts of the SVPA. The AONB Partnership commissioned several studies to support the extension including an Alison Farmer Associates (AFA) report on the Special Qualities of the Dedham Vale AONB Evaluation of Area between Bures and Sudbury Area (2016). This study identified an area that in the opinion of the consultant (AFA) met the criteria for designation as AONB.
- 1.3.7 Natural England, confirmed in March 2021 that the Partnership's proposal to vary the boundary of the Dedham Vale AONB had been registered. In June 2021, Natural England announced proposals for new protected areas across England, alongside a new programme to examine how more areas could benefit from landscape improvements and deliver more for people and nature. Under these proposals, Natural England announced that extensions are being considered to two existing AONB (Surrey Hills AONB and the Chilterns AONB) as well as two new AONB (Yorkshire Wolds AONB and Cheshire Sandstone Ridge AONB). There is no current programme available regarding consideration of the proposed extension to the Dedham Vale AONB.

1.4 Structure of this Report

1.4.1 This report comprises five chapters:

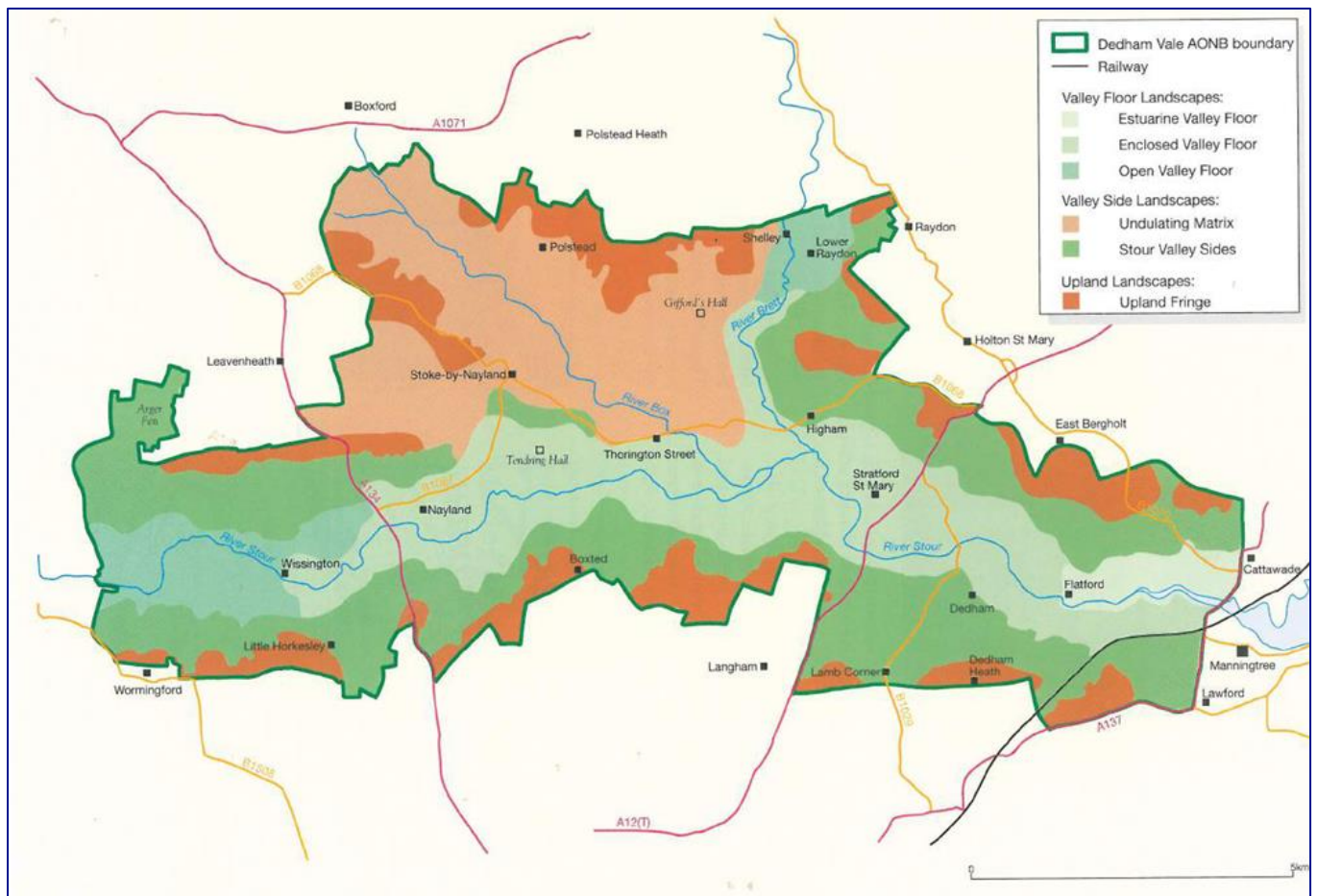
- Chapter 1: Introduction – overview and background (this chapter);
- Chapter 2: Dedham Vale AONB – an overview of the landscape and special qualities of the Dedham Vale AONB;
- Chapter 3: Approach to Defining the Setting of the AONB – an explanation of what is meant by the ‘setting’ of the AONB and the approach to defining it within the context of the project;
- Chapter 4: The Setting of the Dedham Vale AONB – identification of complementary landscapes and intervisibility with the AONB; and
- Chapter 5: Conclusion – a conclusion on what areas of the landscape constitute ‘setting’ in the context of the project.

2. Dedham Vale AONB

2.1 Overview of the Landscape

2.1.1 Dedham Vale AONB is situated on the Essex/Suffolk border in the East of England. Designated in 1970, it covers the lower reaches of the River Stour eastwards as far as the Cattawade Marshes where the river becomes tidal. The western boundary extends between Bures and Wormingford. The northern and southern boundaries are situated a few kilometres either side of the river, at times following the Rivers Box and Brett which are tributaries of the Stour (Figure 2.1).

Figure 2.1 – Landscape Character Types across the Dedham Vale AONB (Figure 3 ‘The Dedham Vale Landscape’ from Landscape Design Associates, 1997)



2.1.2 Dedham Vale AONB is the fourth smallest AONB in England at 90km² (around 35 square miles). It is a farmed landscape, with a population of around 10,000. Much of the natural beauty of Dedham Vale can be attributed to the gentle landforms of the valley landscape and the interlocking patterns of settlement and land use which over the centuries have created a small-scale domesticated landscape made up of hedgerows, woods, copses, riverside pollards, and a medieval settlement pattern. It is particularly valued for its landscape and scenic qualities, and cultural and artistic associations, which combine to create what many describe as the traditional English lowland landscape.

2.1.3 A complex pattern of underlying drift and solid geology, which has been eroded and moulded by the River Stour and its tributaries, has created three main types of landscape

the valley floor landscapes, the valley side landscapes and the upland landscapes. These are shown in Figure 2.1, which also shows how these three main types can be subdivided into smaller units. Further information and descriptions of the landscape character types is provided in *The Dedham Vale Landscape: An AONB* (Landscape Design Associates, 1997), from where the plan is extracted. The following text summarises the descriptions in this report and has been verified in the field.

Valley Floor Landscapes

- 2.1.4 The lush lowland character of the floodplain meadows and pastures adjacent to the Rivers Stour, Brett and Box epitomise the Dedham Vale landscape and express many of the aspects and elements depicted by artists including John Constable, Sir Alfred Munnings, Thomas Gainsborough, and John Nash.
- 2.1.5 Landscape elements such as pollarded willows, lines of bat willows, expanses of water, meadows and pastures are common throughout the flat or gently undulating valley floors of the Rivers Stour and Brett. The floodplain landscape varies considerably depending on the time of year. In winter it is an open and remote landscape with brown reeds lining water channels and frost on the branches of willow and alder. By contrast in summer, the landscape becomes green and more enclosed, populated not only by cattle grazing in the meadows but also by tourists boating, walking, and picnicking. The river channels generally have well-vegetated margins, in places with overhanging willows forming tunnels of shady green.

Valley Side Landscapes

- 2.1.6 To either side of the valley floors are the gently convex slopes of the valley side landscapes. The sands and gravels of the valley sides have created deep, well-drained fine loamy and sandy soils, which support a small-scale pattern of pasture, arable fields, and woodland. To the north and south of the Vale, the landform is more complex and undulating as the valley side landscapes are dissected by several small tributaries of the Stour, as well as the more substantial River Box.
- 2.1.7 The distinction of land uses associated with the valley side (arable, woodland and settlement) and valley floor (pastures and grazing marsh) reinforces the legibility of the valley form.

Upland Fringe Landscapes

- 2.1.8 The upland fringe landscape is found around the fringes of the AONB and forms part of a plateau of South Suffolk and North Essex Claylands that extends across Essex and Suffolk. It supports mainly medium to large-scale arable farmland and has many similarities to the wider landscape context of the Vale.
- 2.1.9 Lying around 50m above ordnance datum, the landform is slightly undulating but appears flat in contrast to the valley side landscapes. The elevation affords extensive views across the higher ground and there is little sense of enclosure. Views to the Stour Valley itself are not generally possible. Hedgerow removal and the impact of Dutch Elm disease in the 1970s reinforces the more open and exposed character of the landscape.
- 2.1.10 The upland fringe is more intervisible with the areas outside the AONB than the valley floor or valley side landscapes which are more inward looking. This means that factors causing change outside the AONB are likely to extend their influence within the AONB.

This includes tall masts and communications towers on the plateau surrounding the AONB, the existing pylon lines, and the water tower at Raydon which serves as a landmark.

- 2.1.11 It is worth noting that existing 400kV and 132kV overhead lines were features in the landscape before the AONB was designated in 1970. These include the existing 400kV (4YL) overhead line which runs from Bramford to Twinstead Tee and was constructed in 1966, and the existing 400kV (4YLA) overhead line, which runs south from Twinstead Tee and was constructed in 1967. The date of construction of the 132kV overhead line is unknown but it appears on 1937-61 OS 1:25,000 mapping which confirms it was constructed prior to the 400kV overhead lines.

2.2 Landscape Character Assessment

- 2.2.1 Dedham Vale AONB is covered by two separate county level Landscape Character Assessments: the Suffolk Landscape Character Assessment (2022) (Suffolk County Council, 2011), and Essex Landscape Character Assessment (Chris Blandford Associates (CBA), 2003).
- 2.2.2 The Suffolk Landscape Character Assessment recognises five distinct types of landscape across the AONB: Valley Meadowlands; Rolling Valley Farmlands; Ancient Rolling Farmlands; Plateau Farmlands; Ancient Estate Claylands. The Essex Landscape Character Assessment recognises three distinct types of landscape across the AONB: River Valley Landscapes; Wooded Hills/Ridges Landscapes; and London Clay Landscapes. Figures 2.2 and 2.3 show the Landscape Character Types for the Dedham Vale AONB and the SVPA respectively. These have been extracted from Dedham Vale AONB and SVPA State of the AONB Report (Land Use Consultants, 2018).

Figure 2.2 – Landscape Character Types Across Dedham Vale AONB (Figure 3.1 from State of the AONB Report, Land Use Consultants, 2018)

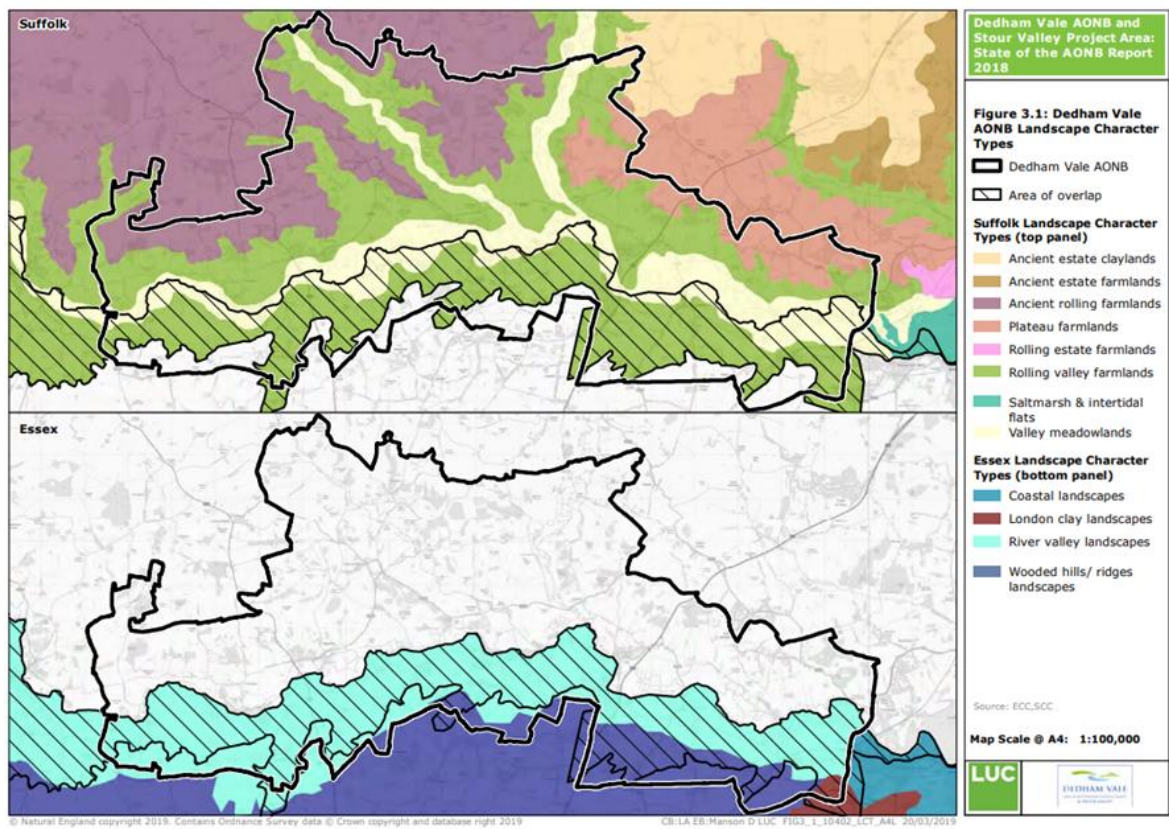
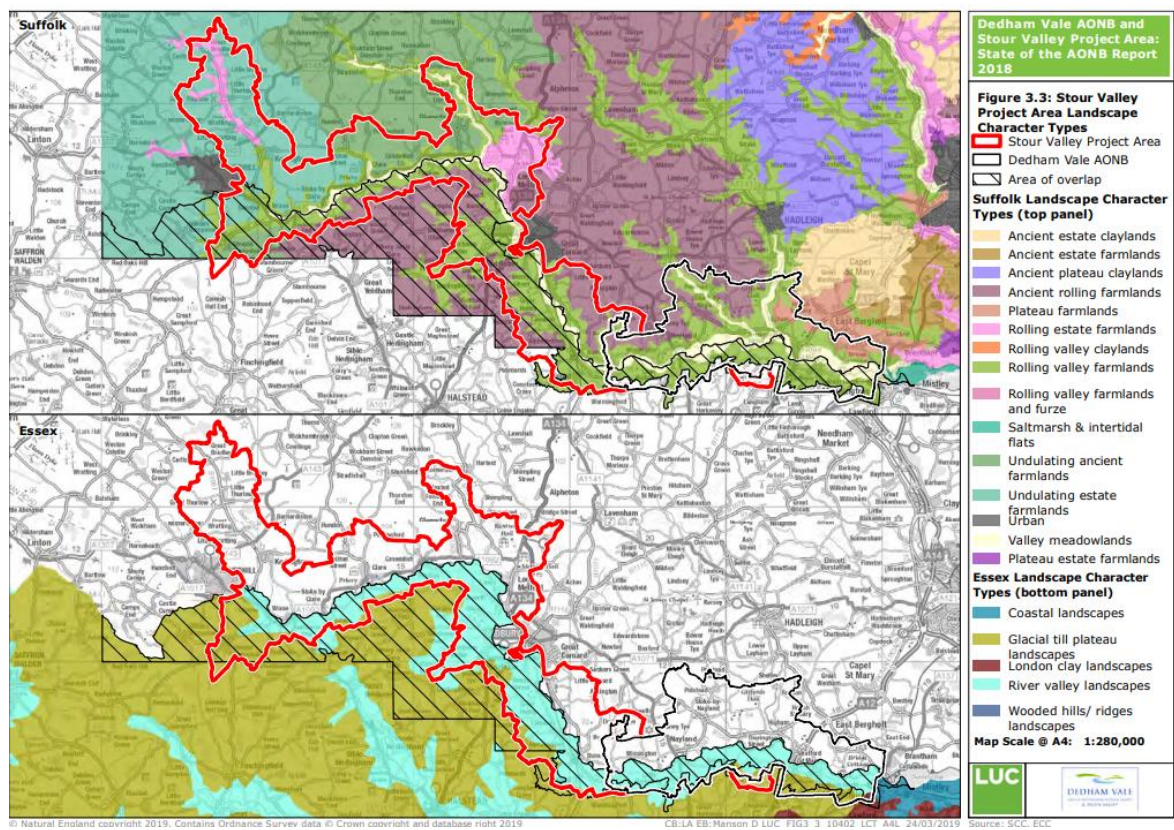


Figure 2.3 – Landscape Character Types across the SVPA (Figure 3.3 from State of the AONB Report, Land Use Consultants, 2018)



2.3 The Dedham Vale AONB and SVPA Management Plan

2.3.1 The Partnership produces a Management Plan (the AONB Management Plan) every five years on behalf of the relevant planning authorities that operate across the AONB covering both the designated AONB and the SVPA. The current version (Dedham Vale AONB and SVPA Partnership, 2021) covers 2021-2026. This sets out the defined natural beauty of the AONB and SVPA.

Statement of Significance

2.3.2 The following statement of the significance of the Dedham Vale AONB is set out in Section 2.10 of the AONB Management Plan:

‘The Dedham Vale AONB is a predominately agricultural landscape that exhibits a subtle lowland river valley with an assemblage of features associated with this landscape still in place and intact. These features include a gently winding river and tributaries; gentle valley sides with scattered woodlands; sunken rural lanes; picturesque villages with imposing churches and historic timber framed buildings; scattered farmsteads and agricultural buildings; small fields enclosed by ancient hedgerows; riverside grazing meadows with associated drainage ditches and visible and hidden archaeology providing evidence of human habitation over previous millennia.

The area remains mostly free of incongruous development and large scale industrial developments. Despite some intrusions of human activity in the twentieth and twenty first centuries, the area retains a rural charm and tranquillity and is largely free of infrastructure associated with modern life.

The essential character of the Dedham Vale AONB was established in the middle of the previous millennium and has remained intact despite social, technological events. The fundamental beauty of the area and the scenes of a working landscape were captured by England’s finest landscape artist, John Constable. The sites of his paintings are still recognisable in the heart of what is now the AONB’.

2.3.3 Section 3 of the AONB Management Plan includes a series of objectives which are aimed at conserving and enhancing the natural beauty of the AONB and SVPA. The following are relevant to this study:

- Land use management decisions should pay regard to the purpose of the AONB, to conserve and enhance its natural beauty;
- Decision makers should consider the purposes of the AONB when working on development proposals; and
- The natural features, of the AONB and SVPA, including its wildlife, should be conserved and enhanced.

The Natural Beauty of the AONB

2.3.4 The natural beauty and special qualities of the Dedham Vale AONB are summarised in the former Countryside Commission’s publication The Dedham Vale Landscape (Landscape Design Associates, 1997). This document comments (page 39) that the AONB landscape is ‘...important because of its unspoilt rural character. It has remained remarkably free from the intrusion of modern development...’

- 2.3.5 It goes on to explain that the *‘Rich agricultural landscapes and woods are complemented by the consistent use of local building materials and colours in the villages and isolated cottages. The visual harmony gives the AONB its strong sense of unity, which is vital to its aesthetic appeal and sense of place. Within this overall character, the landscape is greatly enhanced by rich contrasts in scenery and characteristic details’*.
- 2.3.6 In 2016, AFA on behalf of the Partnership produced a report entitled Dedham Vale AONB Natural Beauty and Special Qualities and Perceived and Anticipated Risks (AFA, 2016). This report presents evidence on the defined natural beauty characteristics of the Dedham Vale AONB and articulates why it is one of England’s nationally valued landscapes. It includes a detailed assessment of the factors which contribute to the natural beauty of the Dedham Vale AONB and the relationship between them. It comments on the natural beauty indicators (or natural beauty characteristics) used as considerations as part of the Dedham Vale’s AONB designation process.
- 2.3.7 In addition to understanding natural beauty and the factors which contribute to it, the term 'special qualities' is also frequently used in management plans for designated landscape, Landscape Character Assessment and in planning policy. An understanding of special qualities can enable what is particularly valued about a specific landscape to be encapsulated. Inevitably, however, there can be significant overlap between a description of a landscape's natural beauty and its special qualities, and the terms are frequently used interchangeably. For example, whilst the former Dedham Vale AONB and SVPA Management Plan (2016-2021) identified the ‘special qualities’ of the AONB, the current version (2021-2026) refers instead to ‘natural beauty indicators’.
- 2.3.8 These are reproduced in Section 2.6 of the AONB Management Plan as follows:
- Landscape quality - intactness of landscape and generally free of incongruous features;
 - Scenic quality - iconic lowland river valley with assemblage of features;
 - Relative wildness - sense of remoteness, historic human and agricultural activity;
 - Relative tranquillity - limited, but significant, incursions from human activity;
 - Natural heritage features - functioning river, with associated habitats and species; and
 - Cultural heritage - historic villages, visible archaeology, and artistic associations.
- 2.3.9 The report provides supporting evidence on how the Dedham Vale meets these indicators and discusses current, perceived and anticipated risks to the natural beauty of the AONB.

3. Approach to Defining the Setting of the AONB

3.1 Introduction to Setting

- 3.1.1 The legislative/policy basis for considering the setting of designated landscapes in relation to development is clearly set out in the NPPF (MCHLG, 2021), which states in paragraph 176 that, *'Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and AONB which have the highest status of protection in relation to these issues.... The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas'*.
- 3.1.2 The NPPF does not, however, define what is meant by 'setting' from a landscape perspective.
- 3.1.3 In terms of heritage, Annex 2 of the NPPF defines setting as *'The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of the asset, may affect the ability to appreciate that significance or may be neutral'*.
- 3.1.4 This definition clearly implies a two-way effect, with the setting providing the distinctive context and benefiting the heritage asset and the heritage asset contributing to the character and qualities of the wider environment. Each adds value to the other. A similar situation exists on the edge of an AONB, especially where the landscapes and landforms visually or functionally, join the surroundings to the AONB.
- 3.1.5 Historic England in its report *The Setting of Heritage Assets* (Historic England, 2017a) discusses the concept of setting (with reference to a previous version of NPPF) and explains in Part 1, paragraph 9 that its importance lies in what it contributes to the significance of the heritage asset or to the ability to appreciate that significance. Paragraph 9 also notes that *'where the significance of a heritage asset has been compromised in the past by unsympathetic development affecting its setting, to accord with NPPF policies consideration still needs to be given to whether additional change will further detract from, or can enhance, the significance of the asset'*.

3.2 Development in the Setting of the Dedham Vale AONB

- 3.2.1 As part of its commitment to conserving and enhancing the AONB and as an action within the AONB Management Plan, the Partnership has produced position statements on key issues affecting the AONB. Of the six position statements, the Dedham Vale AONB Position Statement: *Development in the Setting of the Dedham Vale AONB* (the Partnership, 2016) ('the Position Statement') is relevant to the project.
- 3.2.2 The Position Statement is produced as an advisory document, intended to provide further guidance on issues of setting for relevant planning authorities, landowners, and other interested parties. It sets out on what should be considered in terms of development outside the AONB, focussing on ensuring avoidance of harm and the conservation and

enhancement of the defined natural beauty of the AONB, through good design and the incorporation of appropriate mitigation measures.

3.3 The Setting of Dedham Vale AONB

- 3.3.1 As discussed in Section 3.1, the term 'setting' in relation to protected landscapes implies and is generally taken to mean the land surrounding the designated area which, whilst not designated, has a complementary relationship and is intervisible with the designated landscape. The setting contributes to the understanding of the significance of the landscape. For Dedham Vale AONB, this is the defined natural beauty that forms the basis for designation.
- 3.3.2 This is the basis of the definition of setting in paragraph 4 of the Position Statement:
'The AONB Partnership considers the setting of the AONB to be the area within which development and land management proposals, by virtue of their nature, size, scale, siting materials or design can be considered to have an impact, positive or negative, on the natural beauty and special qualities of the Dedham Vale AONB. This is particularly the case where long views from or to the designated landscape are identified as important, or where the landscape character of land within and adjoining the designated area is complementary.'
- 3.3.3 Paragraph 11 of the Position Statement explains that the setting of the AONB does not have a defined geographical border, noting that the location, scale, materials or design of a proposed development or land management activity will determine whether it affects the defined natural beauty of the AONB.
- 3.3.4 In most cases, the setting of the AONB comprises land outside the protected area which is visible from the AONB and from which the AONB can be seen. Setting can also affect views within the AONB, for example a development outside the AONB could be visible between different parts of the AONB, affecting the integrity of internal views of the AONB landscape.
- 3.3.5 Setting can extend beyond the visual and include the experience of the landscape. For example, noise from a development may affect aspects such as tranquillity or the perception of remoteness.
- 3.3.6 In some cases, the setting area will be compact and close to the AONB boundary, perhaps because of natural or man-made barriers or because of the nature of the proposed change. Conversely, the setting area maybe substantial for example if the development is very tall, or where there is a strong contrast in topography between higher and lower ground.
- 3.3.7 An area of setting does not have to be contiguous with the designated area, for example, the top of a tall structure outside and possibly some distance from the AONB may be visible beyond a key ridgeline when viewed from within the AONB, potentially affecting its natural beauty.

4. The Setting of the Dedham Vale AONB

4.1 Introduction

4.1.1 When identifying areas that may be considered to form part of the setting of the Dedham Vale AONB, the focus of this report is on the western and northern parts of the AONB as this is the area most likely to be affected by the project whether in terms of views or change of landscape character. East of Hadleigh, the project moves away from the AONB and becomes too distant to potentially affect its natural beauty.

4.1.2 As discussed in Chapter 3 of this report, there is no specific or formally agreed official definition of the term 'landscape setting' in relation to nationally designated landscapes. The definition set out in the Position Statement (2016) and reproduced in Section 3.3.2 of this report implies that there are two separate but linked aspects which need to be considered when identifying the setting of the Dedham Vale AONB:

- Complementary setting – areas outside the AONB where the landscapes and landforms visually or functionally link with the AONB. Such landscapes are likely to display similar characteristics and contribute to the character, qualities, and sense of place of the landscape within the AONB thereby supporting the delivery of the AONB's statutory purpose i.e., to conserve and enhance the area's natural beauty; and
- Development defined setting – identification of areas where the project would be visible in views to, from or within the AONB and where it may therefore influence the defined natural beauty of the AONB.

4.1.3 These aspects are explored further below in relation to Dedham Vale AONB. A starting point is the work that has been undertaken by the Partnership in the SVPA.

4.2 Complementary Setting

The Stour Valley Project Area

4.2.1 The Partnership supports the view that parts of the SVPA are within the setting of the AONB, stating in paragraph 2.9 of the AONB Management Plan that:

'Much of the SVPA shares similar characteristics to the Dedham Vale AONB, particularly the area nearest the existing AONB'; and

'The SVPA is predominately rural with a medieval settlement pattern. The area has many of the characteristics associated with the AONB including the patterns of woodland on the valley sides, the River Stour running gently through it and a scattering of historic picturesque villages'.

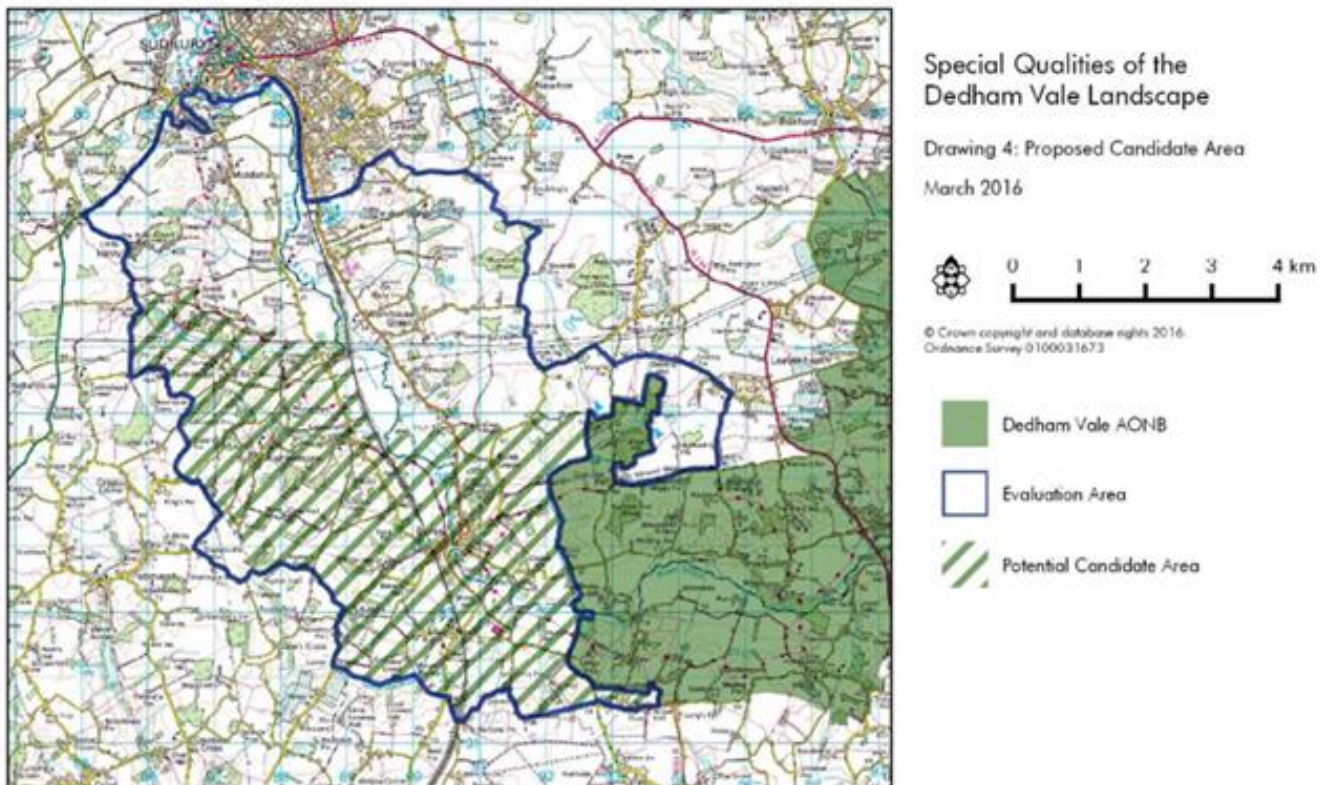
4.2.2 Alison Farmer Associates prepared a report entitled Special Qualities of the Dedham Vale AONB, Evaluation of Area Between Bures and Sudbury (AFA, 2016). Commissioned by the Partnership, this independent review of the SVPA, used Natural England Guidance (Natural England, 2011b) to appraise its suitability for designation as AONB.

4.2.3 The AFA report (2016) identifies an area between the existing AONB boundary and Lamarsh as being worthy of designation and refers to it as 'the Candidate Area'. This is because it is of contiguous and complementary landscape character and quality to the

AONB and contribution it makes to the special qualities by which the designation is itself appreciated and valued. The findings of desk studies and site visits undertaken as part of the Bramford to Twinstead Reinforcement baseline landscape and visual appraisals have verified the findings of the AFA report (2016).

4.2.4 On this basis and for the purposes of this report, the Candidate Area shown in Figure 4.1 is considered as falling within the complementary setting of the AONB.

Figure 4.1 – The Candidate Area (Drawing 4, AFA, 2016)



4.2.5 A subsequent study was undertaken by AFA and the findings reported in Valued Landscape Assessment: SVPA (AFA, 2020). This study considers the AONB in terms of its special qualities, especially where these qualities can be seen to reflect those within the AONB. Its purpose is to better protect the SVPA against inappropriate development and provide evidence which can be used to inform responses to planning applications/appeals in the context of the NPPF (2021).

4.2.6 The 2020 study covers the SVPA but excludes the Candidate Area shown in Figure 4.1 because its special qualities were already well documented.

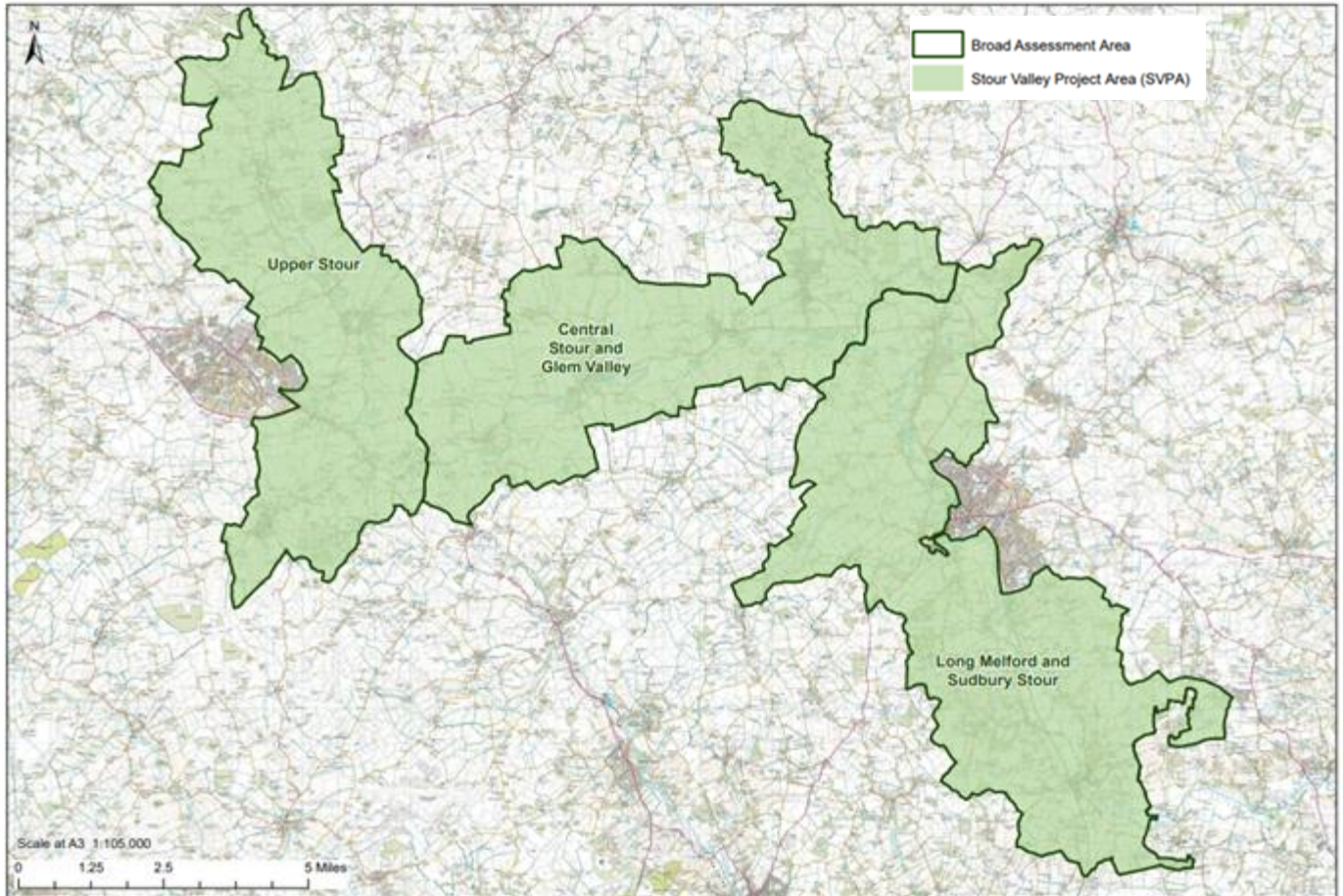
4.2.7 It defines three separate geographic areas, which are shown in Figure 6. It describes the special qualities of these three areas and explains the reasons why they are of landscape value. It notes that, whilst these areas share many of the special qualities of the AONB, there are some differences:

- The Stour Valley, as it extends into its upper reaches, becomes less pronounced and smaller in scale;
- Some of the settlements within the valley have undergone substantial expansion; and

- There are large conurbations on the edge of the area which exert an urbanising influence.

4.2.8 The 2020 study makes no reference to any parts of the three geographical areas (outside of the Candidate Area) forming part of the setting of the AONB. Equally, none of the identified special qualities includes reference to views to or from the AONB.

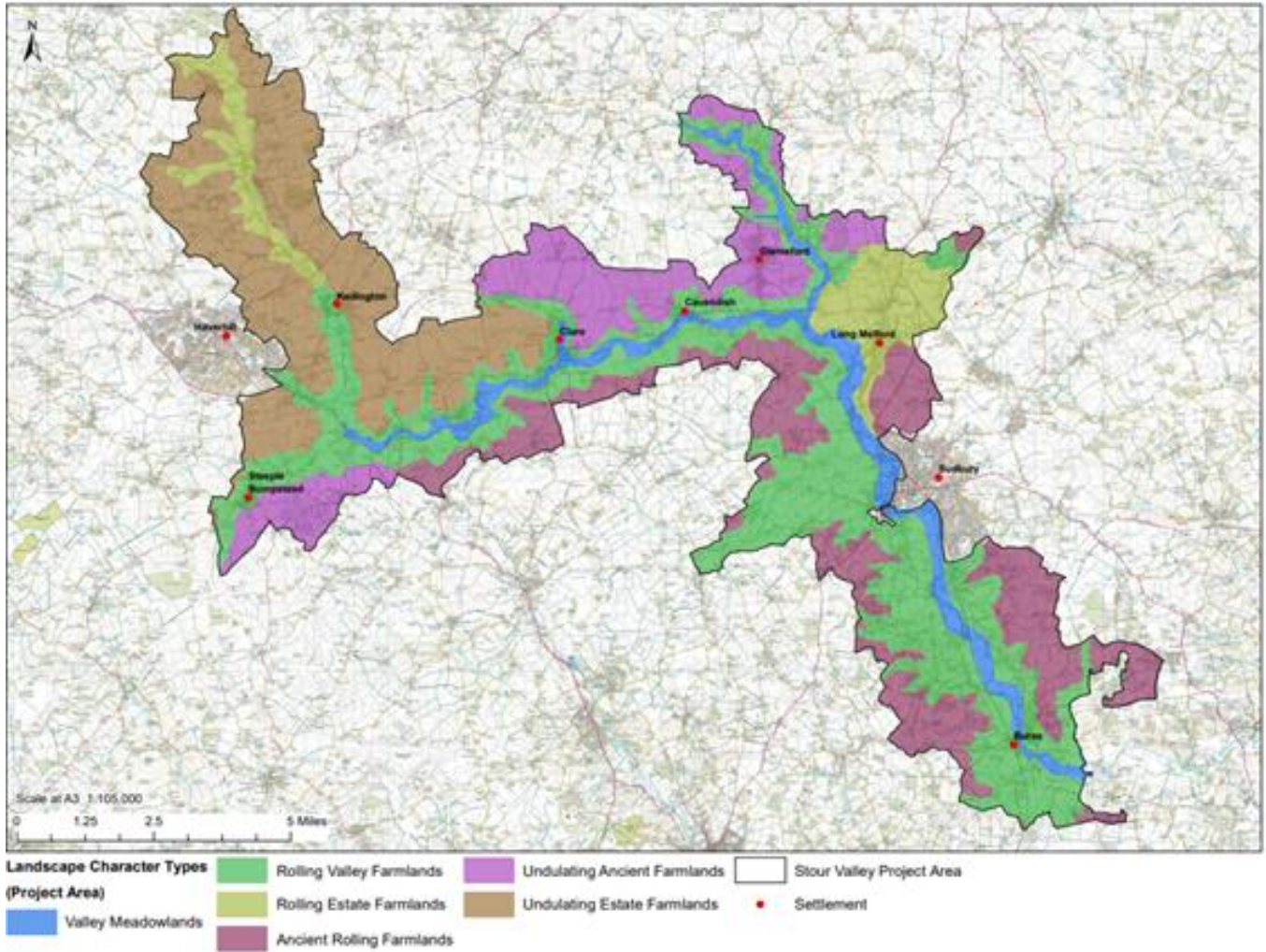
Figure 4.2 – Geographic Areas within the Stour Valley Study Area (Figure 4, AFA, 2020)



Additional Work Within the SVPA

- 4.2.9 To understand whether any parts of the SVPA (outside the Candidate Area) display similar characteristics and contribute to the character, qualities, and sense of place of the landscape within the AONB and therefore be considered as part of its complementary setting, additional desk and site-based studies have been undertaken.
- 4.2.10 The focus of this work was the part of the Long Melford and Sudbury geographic area shown in Figure 4.2. This is the closest area to the Dedham Vale AONB.
- 4.2.11 As shown in Figure 4.3, this area is classed as Ancient Rolling Farmland in the Suffolk County Landscape Character Assessment (2022) (northern/eastern part of Stour Valley only).

Figure 4.3 – Landscape Character Types Across the SVPA (Figure 3, AFA, 2020)

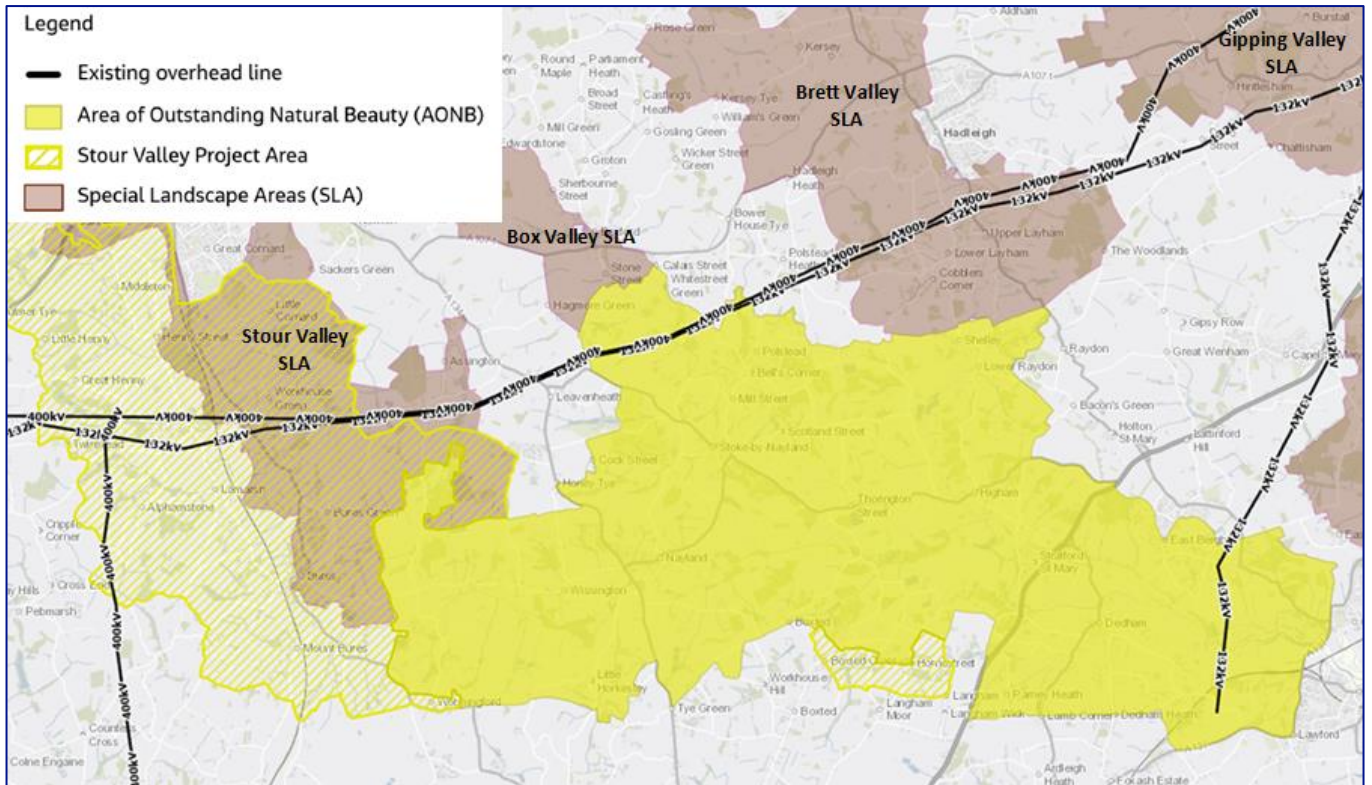


- 4.2.12 The Ancient Rolling Farmland landscape type is found above the Stour Valley to the west and south-west of Leavenheath and adjoining the AONB, where it comprises a flat to gently rolling plateau incised with stream and river valleys, creating very articulated and diverse landforms. It is generally in arable cultivation, with some pasture and dotted with blocks of ancient woodland and small hamlets. Although the A134 is a major route through this area, elsewhere there are narrow lanes edged with holly and field maple, with large field oaks and an occasional conifer plantation.

- 4.2.13 This area is identified in the adopted Mid Suffolk Local Plan (Mid Suffolk District Council, 1998) as part of a wider Special Landscape Area (SLA) - a landscape designation which is currently omitted in the emerging Babergh and Mid Suffolk Joint Local Plan (Babergh and Mid Suffolk District Councils, 2022). Areas identified as SLA are shown on Figure 4.4.

- 4.2.14 The omission of SLA from policy once the Joint Local Plan is adopted does not mean that the qualities of the landscape that led to designation have changed. The past inclusion of the area within an SLA is therefore relevant to this study and forms part of the area’s designation history.

Figure 4.4 – Special Landscape Areas Shown in Relation to the AONB and SVPA



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4.2.15 Site visits undertaken in July 2022 have considered whether the landscape near Leavenheath and the wider SVPA can be considered contiguous to the AONB. The findings of this work conclude that localised areas of Ancient Rolling Farmlands above the Stour Valley to the west and south-west of Leavenheath are intervisible with the AONB and display some similar characteristics and can therefore be considered part of the setting.

Complementary Landscapes Outside of the SVPA

4.2.16 Outside of the SVPA, there are no published studies which define the setting of the AONB. The character of the landscape was therefore appraised through both desk and site-based work in July 2022 to understand which parts of it can be considered within the complementary setting of the AONB. This included identifying the areas outside the AONB which are visible from within the AONB and areas from where the AONB can be seen.

4.2.17 The conclusion of this work is that there is not a strong contrast between the landscape outside of the AONB and the landscape within its northern boundary. The change along much of the boundary is expressed as a subtle increase in elevation and woodland cover within the AONB. This means that the AONB is not prominent in views from the north and likewise there are no key views out of the AONB to the north.

4.2.18 In some places the setting area is compact and close to the AONB boundary. This is because of man-made features such as settlement, for example Boxford and Leavenheath, where the landscape becomes more heavily influenced by modern

development (including the Boxford Fruit Farm), and the components of the landscape and its elements are quite different in character to that of the AONB. In other places it lies close to the AONB boundary because the landform and/or woodland creates a visual barrier between the AONB and the surrounding landscape for example east of Upper Layham and south of Polstead Heath.

- 4.2.19 Locations where the setting of the AONB is more pronounced include the landscape of the Brett Valley and Box Valley, both of which are designated as SLA (shown on Figure 4.4) in the adopted Mid Suffolk Local Plan (Mid Suffolk District Council, 1998), and reflect the landscape character within the Dedham Vale AONB.

Brett Valley

- 4.2.20 The Brett Valley south of Hadleigh is characterised in the Suffolk Landscape Character Assessment (CBA, 2003) as Rolling Valley Farmlands and Valley Meadowlands, both of which extend south across and into the AONB, suggesting there is not a pronounced change in character. As a tributary of the River Stour, the River Brett has formed a small valley with gently sloping and rolling valley sides. The valley is settled and contains several small villages, including Upper and Lower Layham some of which have an historic and vernacular character. In its middle reaches, the southern residential edge of Hadleigh extends into the valley and imparts a more suburban character to the landscape.

- 4.2.21 Land cover is typically arable land on the valley sides, which gives way to pockets of pasture on the valley floor. Woodland forms a distinctive feature in the land beyond the valley and is often present on the upper slopes where it frames outward views from the valley. The landscape is broadly intact, although hedgerow loss and gappy hedgerows are relatively frequent, with field amalgamation and loss of historic field patterns. This has created a relatively open landscape and affords good intervisibility across the northern boundary of the AONB. The valley landscape provides a complementary foreground in views of the AONB to the south, which means that it can be considered to form part of the setting of the AONB. The extent of this intervisibility and therefore the northern extent of the setting area within the valley is contained along the route of the existing overhead lines which follows a low ridgeline to the south of Hadleigh. This ridgeline obscures longer views to the north.

Box Valley

- 4.2.22 Like the Brett Valley, the Rolling Valley Farmlands (CBA, 2003) of the Box Valley extend across the northern boundary of the AONB but, unlike the Brett Valley, the Valley Meadowlands are found entirely within the AONB. The River Box is a small tributary of the River Stour which has created a small, secluded valley with gently sloping sides. Land cover within the valley mainly consists of pastures with some broadleaved woodlands to the valley sides. On the western side of the valley are orchards and related infrastructure which form part of the large Boxford Fruit Farm. This influences the landscape character both inside and outside the AONB. North of the fruit farm, the landscape is mainly intact, although there is localised evidence of hedgerow loss and field amalgamation.

- 4.2.23 Although complementary to the landscape within the AONB, the landscape of the Box Valley is small scale, narrow and enclosed by the gently sloping valley sides and woodland. This imparts an intimate feel to the landscape and limits intervisibility with the AONB to the area south of Boxford. The extent of the setting area is therefore more tightly contained in the Box Valley than in the Brett Valley.

4.3 Development Defined Setting

4.3.1 The second consideration in the Position Statement noted in paragraph 4.1.2 of this report is the identification of the areas outside the AONB where the project would be visible in views to, from or within the AONB and where it may therefore influence the defined natural beauty of the AONB by:

- Blocking or interfering in views out of the AONB particularly from public viewpoints;
- Blocking or interfering in views towards the AONB from public viewpoints outside the AONB (and by inference views between parts of the AONB towards new development in its setting); and
- Introducing an abrupt change of landscape character due to the presence of development.

4.3.2 The scale, height, siting, use, materials, and design of a development are all factors that determine whether the project will potentially affect the natural beauty of the AONB. Incompatibility with its surroundings, movement, reflectivity, and colour are also likely to play a part.

4.3.3 In most cases, the further away a development is from the AONB boundary, the more the effect is likely to be reduced.

4.3.4 As noted in the introduction to this report, the assessment of the level of effect of the project either on the AONB or the landscape within its setting is reported in ES Chapter 6: Landscape and Visual (**application document 6.2.6**). The purpose of this report is to identify areas where the project would be present in views and therefore may impact on its defined natural beauty. The aim is also to identify where the presence of the project would introduce an abrupt change in landscape character which would in turn affect the defined natural beauty of the AONB.

Zone of Theoretical Visibility

4.3.5 To understand the issue of intervisibility in relation to the AONB and 400kV overhead line infrastructure development in general, a Zone of Theoretical Visibility (ZTV) exercise was undertaken. ZTV analysis is the process of determining the non-visibility and the theoretical visibility of an object in the landscape. It is an objective process where the results are determined by computer software which uses an algorithm to analyse digital height data. It is important to understand that ZTV analysis is not used to determine actual visibility, only theoretical visibility i.e., it shows areas where the study point *may* be seen and areas where it *cannot* be seen. Also, it does not convey the nature or magnitude of visual effects.

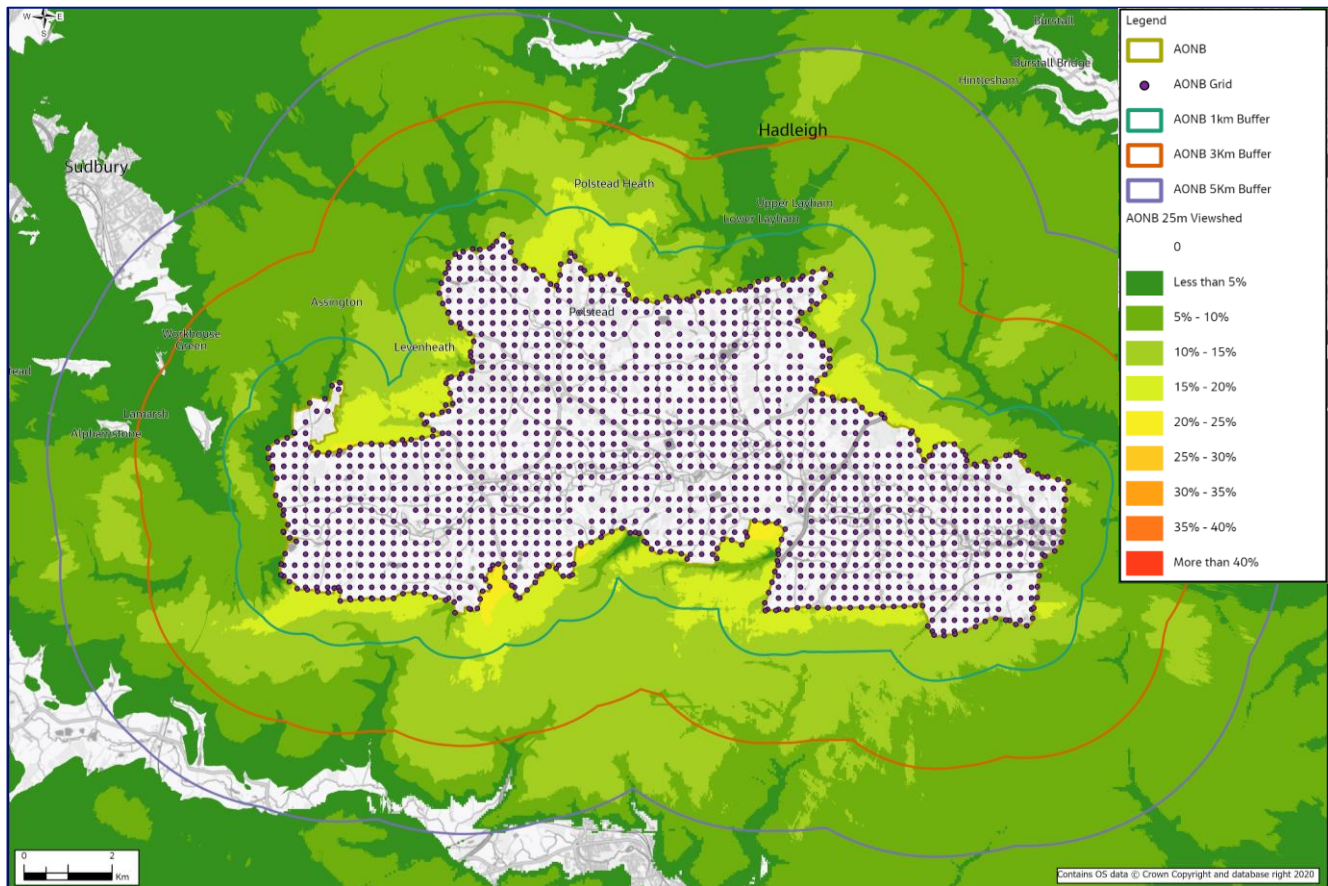
4.3.6 In this case the ZTV analysis considered views from within the AONB looking out. GIS was used to calculate the areas outside the AONB where the top half of 50m high structures would potentially be visible from within the AONB and therefore helps identify the distances at which typical 50m high pylons would be potentially visible from within the AONB.

4.3.7 The difference between this ZTV and more typical ZTVs, including those undertaken to inform the landscape and visual impact assessment as part of the EIA process, is that there are no fixed structure location points. This is because the aim is not to assess the effect of the proposed overhead line (which as noted above will be undertaken as part of

the EIA process), but rather to identify anywhere within the AONB from where the top half of a structure (25-50m high) located outside the AONB may be visible.

- 4.3.8 The top half of the structure (25-50m) is mapped rather than just its top, as it is considered that a glimpse of the top of a pylon is unlikely to influence the defined natural beauty of the Dedham Vale AONB, particularly since views of pylons and other man-made features are an existing feature of the AONB.
- 4.3.9 As a starting point, a grid of AONB viewer points (viewer grid points) were distributed within and along the AONB boundary at 250m centres. These represent non-specific views from within the AONB and are based on 1.5m observer eye level. A combination of OS Terrain 5 and Terrain 50 Digital Terrain Model was used.
- 4.3.10 The landscape in the AONB is characterised by a high level of tree cover, therefore the ZTV takes larger woodland blocks within the AONB into account as these serve as visual barriers. These were defined by desk study using the National Forest Inventory mapping dataset. They were assigned a 15m height, which is considered a conservative approach to represent the likely screening/filtering effects of mature woodland within the AONB. Once the woodland blocks had been identified, viewer grid points within them were removed. There are represented as blank areas in Figure 4.5.
- 4.3.11 The resultant heat map shown as Figure 4.5 illustrate the areas outside the AONB where the top half (25 – 50m) of a structure would theoretically be visible. The percentage value relates to the percentage of the receptor points within the AONB which would theoretically be able to see the top half of a pylon.
- 4.3.12 Whilst this heat map shows that 50m high structures could be theoretically visible over a wide area, it does not mean that their presence in views would influence the defined natural beauty of the AONB. This is because the modifying effect of distance must be taken into account as the further away the pylons are from the AONB boundary, the more the impact is likely to be reduced. As an example, at 3km, a 50m high pylon would have an apparent height (Gillespies, 2014) of around 10mm. At 5km this would reduce to 6mm. It is also because the ZTV does not take into consideration smaller areas of woodland, hedgerows, hedgerow and field trees which all play a part in screening, filtering and directing views and will be accounted for in the viewpoint assessment undertaken as part of the EIA.
- 4.3.13 The heat map helped focus and inform the site survey in respect of identifying locations where 50m tall pylons are likely to have the greatest intervisibility with the AONB and could potentially affect its natural beauty.

Figure 4.5 – Areas Where the Top Half of 50m High Structures Located Outside the AONB Would be Theoretically Visible from Viewer Grid Points Within the AONB (Effects of AONB Woodland Included)

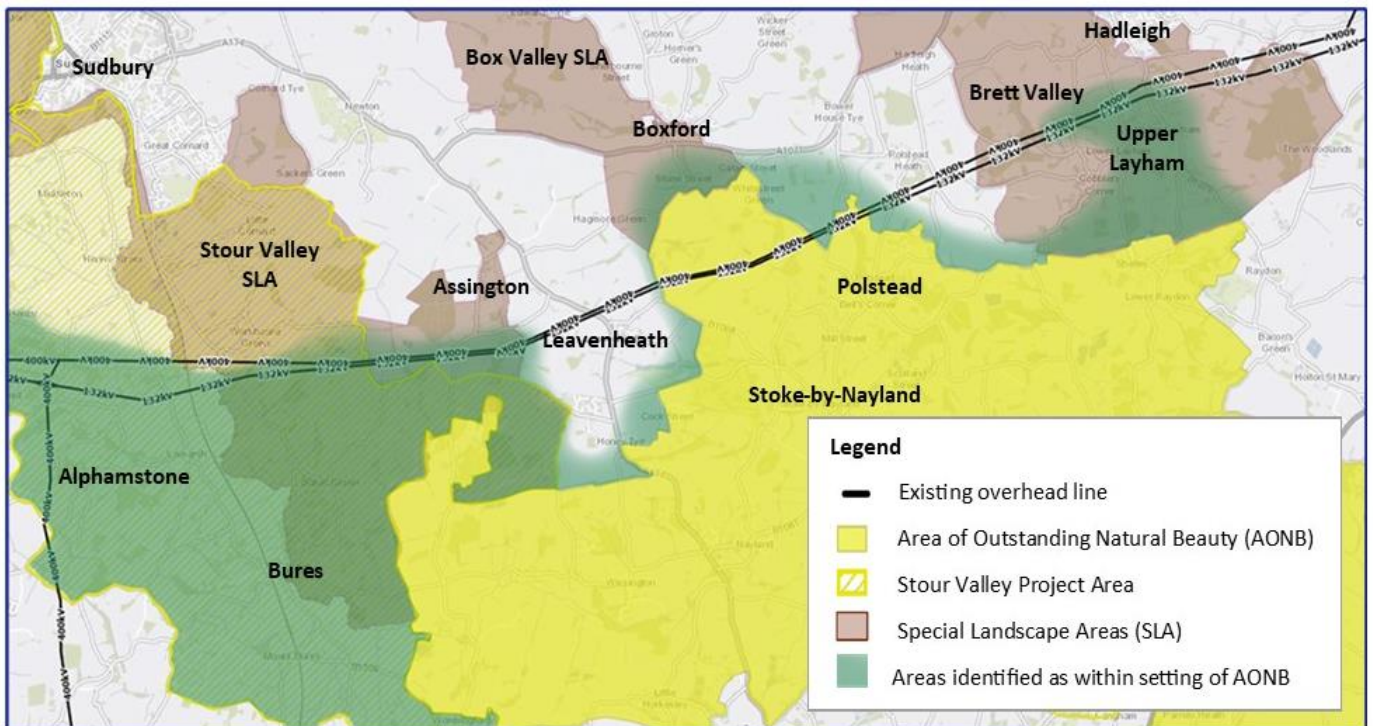


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5. Conclusion

- 5.1.1 Bringing together the considerations of complementary and development defined setting discussed in Chapter 4, the setting of the Dedham Vale AONB in relation to a 50m high pylons is shown on Figure 5.1. It is important to note that this only illustrates areas to the north and west of the AONB as this has been the focus of the landscape and visual site visits.
- 5.1.2 It is suggested that, when assessing effects on the Dedham Vale AONB, the area highlighted in green on Figure 5.1 should be considered to fall within the setting of the designated area.
- 5.1.3 These areas reflect the following:
 - The complementary landscape of the Brett Valley south of Hadleigh;
 - The complementary landscape of the Box Valley south of the A1071 and Boxford;
 - The complementary landscape of the 'Candidate Area' and area to the east within the SVPA to the south of Assington;
 - Areas which have the greatest intervisibility with the AONB at distances within which pylons could be considered to affect the natural beauty of the AONB.

Figure 5.1 – Proposed AONB Setting in Relation to the Project



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