

Rampion 2 Wind Farm

Category 6: Environmental Statement

Volume 4, Appendix 25.5: Oakendene parkland: historic landscape assessment

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1. Introduction

- 1.1.1 Rampion Extension Development Limited (hereafter referred to as 'RED') is developing Rampion 2 (the 'Proposed Development') located adjacent to the existing Rampion Offshore Wind Farm (Rampion 1) located in the English Channel in the south of England. Rampion 2 will comprise both onshore and offshore infrastructure associated with an offshore wind farm. The subject of this report relates to the location of the onshore substation at Oakendene.¹ This report was first issued to West Sussex County Council (WSCC) on 21 April 2023 and is included as an appendix of the Environmental Statement (ES) to inform the assessment of historic environment effects.
- 1.1.2 The proposed onshore substation is located approximately 180m to the east and south of the Grade II listed Oakendene Manor and within land which has been historically linked to the listed building through ownership and as within the extent of historic parkland which was attached to the house. This report presents a historic landscape assessment of Oakendene historic parkland, detailing its development and historic character. This is to understand the heritage significance of the parkland as a non-designated heritage asset in its own right, and also to inform an understanding of its contribution as the setting of Oakendene Manor. For the purpose of this report, the full extent of the historic parkland is defined by its maximum extent as shown on the 1839 Cowfold Tithe map, which is the earliest detailed map showing the parkland. The extent of this is shown on **Plate 2** and **Plate 3** in **Annex A**.
- 1.1.3 This report has informed the onshore substation design process of the Proposed Development, including indicative landscape planting proposals, aimed at minimising potential effects arising from loss of any elements of the parkland and/or changes to the setting of Oakendene Manor.
- 1.1.4 A historic landscape assessment of Oakendene historic parkland was requested by WSCC during the non-statutory consultation exercise held between 14 January and 11 February 2021. The following comments regarding the scope of the report, were received from the WSCC Archaeologist on 05 October 2022:
- *“Determine the historic extent of the estate using relevant documentary sources such as earlier estate mapping, tithe apportionments etc., where available;*
 - *Include an assessment of the relationship between the listed house, Oakendene Manor (NHLE 1027074²), and the parkland how each might contribute to the significance of the other;*

¹ Referred to as the Bolney Road/Kent Street onshore substation search area in the Preliminary Environmental Information Report (PEIR) (RED, 2021). The detail of the site selection and design process for the onshore substation is provided in **Chapter 3: Alternatives, Volume 2** of the Environment Statement (ES) (Document Reference: 6.2.3).

² National Heritage List for England list entry number

- Consider any contribution made to significance by the setting of the parkland, especially in the event that historic links between the former formal park and the wider agricultural landscape can be identified; and
- Consider whether views in/out of former parkland will be severed or interrupted or meaningfully changed by the proposals, and the effect this might have on significance.”

1.1.5 The definition of setting used here is taken from the National Planning Policy Framework (NPPF) (2021) and is “*the surroundings in which an asset is experienced. Its extent is not fixed and may change as the asset and its surrounding evolve. Elements of a setting may make a positive or negative contribution to the value of an asset, may affect the ability to appreciate that significance or may be neutral*” (Annex 2).

1.1.6 Following this introduction, this report includes the following sections:

- **Section 2: Historic development of the parkland at Oakendene** – to describe the origins and development of the parkland;
- **Section 3: Location and landscape context** – to describe the parkland, surroundings and views into and out of it;
- **Section 4: Approaches and drives** – describe the historic approaches to Oakendene Manor;
- **Section 5: Surviving features of historic interest** – to describe the survival of historic parkland features;
- **Section 6: Heritage significance and contribution of setting** – to describe the significance of the non-designated parkland and its contribution as the setting of the listed Oakendene Manor; and
- **Section 7: Potential impacts**– to outline the potential effects arising from the construction and operation of an onshore substation.

1.2 Technical guidance

1.2.1 The following documents have been used to prepare this assessment:

- Historic England, (2022a). *Historic Landscape Characterisation*.
- Historic England and Forum on Information Standards in Heritage (FISH), (2015). *Historic Characterisation Thesaurus*.
- Historic England, (2015). *Managing Significance in Decision-Taking in the Historic Environment Historic Environment Good Practice Advice in Planning: 2*.
- Historic England, (2017a). *Understanding Place: Historic Area Assessments*.
- Historic England, (2019a). *Statements of Heritage Significance: Analysing Significance in Heritage Assets*.
- Historic England, (2019b). *The Setting of Heritage Assets Good Practice Advice in Planning Note 3*.

- Historic England, (2017b). *Rural Landscapes, Register of Parks and Gardens Selection Guide*.

1.2.2 Historic England in its *Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning 3* (2019b) considers that the importance of setting lies in what it contributes to the significance of the heritage asset. This depends on a wide range of physical elements within, as well as perceptual and associational attributes pertaining to the heritage asset's surroundings.

1.3 Sources of information

1.3.1 The following sources of evidence were used to inform assessment:

- Modern maps (Ordnance Survey (OS) MasterMap, 1:2500; OS 1:25000);
- Historic maps (tithe mapping, Ordnance Surveyors Drawings and historic Ordnance Surveys) (see **Annex A**);
- Aerial photographs and satellite imagery (Historic England Archive, Swindon, Historic England Aerial Photograph Explorer (2022b), University of Cambridge Air Photos, National Collection of Aerial Photography, Bing and Google Earth Imagery);
- LiDAR (Light Detection and Ranging) (Environmental Agency LiDAR 50mm, 1 metre, 2 metre where coverage available) (see **Annex C**);
- Ancient Woodland Mapping (Natural England's Ancient Woodland Inventory Mapping);
- West Sussex Historic Environment Record (HER) data (see **Figures** and **Annex B**);
- National Heritage List for England (NHLE) data (see **Figures** and **Annex B**);
- Sussex Historic Landscape Characterisation (HLC) (WSCC, 2022) project reports and data, (HLC data supplied by WSCC as part of HER dataset) (see **Annex B, Table B-1**);
- Arboricultural survey data (The Environment Partnership (TEP), 2021) (**Annex D**);
- Observations made during a historic environment site walkover on 22 October 2021;
- West Sussex Record Office (WSRO) record search and visit; and
- Rampion 2 Onshore Archaeological Geophysical Survey Report (RED 2022) (see **Annex C**).



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2. Historic development of the parkland at Oakendene

- 2.1.1 There is no settlement recorded at Oakendene in the Domesday Book of 1066, with the nearest being recorded at Sakenham and Shermanbury over 2.5km south. However, historic evidence indicates that the name Oakendene was being used as a surname from the late 13th century, suggesting it was already existing as a place of habitation at that time. Documentary evidence relating to the payment of taxes suggests there was a farmstead known at Oakendene in the early 14th century.
- 2.1.2 The Ditchling OS Drawing of 1798 (**Plate 1**) identifies *Oakendene Farm* within a rural landscape characterised by isolated farmsteads and small villages and hamlets.
- 2.1.3 In the early 19th century, Oakendene (or *Oakendean* as it was named at the time) was in the parish of Cowfold in the county of Sussex. The 1839 Cowfold Tithe map (**Plate 2** and **Plate 3**) identifies plot 453 as a “park”, comprising a large reverse L-shaped area of pasture located immediately southwest of *Oakendean House* (plot 456) (now known as Oakendene Manor (NHLE 1027074) and grade II listed, see **Annex B Table B-1**) and its associated plantations (plot 457 and 458). The tithe map does not record any internal boundary divisions within the land defined as the park. Two driveways, which crossed the park, provided access to the house from the north and west. Both provided access to the main road to Cowfold (now the A272). A footpath is shown on the tithe map traversing the southwest corner of the park. This meets a crossing point in the southern boundary of the parkland near a pond. Another pond, linear in shape, is located in the parkland along the western boundary, beyond which are agricultural fields. The house, plantations, parkland at Oakendene, and other adjacent fields (plot 452 and 454) and woodland (plot 451), were all listed under the same landowner and occupier in the tithe apportionments; Mark Pringle Esquire (see **Annex B**), who inherited the Oakendene estate from his father John. According to historic records, in the 1840s the estate at Oakendene was sold to trustees on behalf of John Norton (Baggs et al., 1987). Numerous ponds are seen within the surrounding fields and woodland which may be a result of extraction for activities such as brick making.
- 2.1.4 All other surrounding land is recorded under different landowners to that of Oakendene at the time of the tithe maps were prepared. At the crossroads of what is now A272 and Kent Street, at the northeast corner of the park, the tithe map shows a toll house and garden which is listed under Roads and Waste in the apportionment.
- 2.1.5 On the 1875 OS, the extent of the parkland at Oakendene (MWS96) is indicated by the shaded area (**Plate 4**). At this time, the estate was owned by the Norton family, namely Harnden Norton (Baggs et al., 1987). The 1875 OS shows that the boundary of the parkland underwent only minor changes since the tithe map was drawn up, including the creation of a new field boundary, oriented north-south, which effectively excluded an area of the parkland in the northeast and reducing

its overall size. Some of the parkland in the west was given over to a newly established farmstead and aviary, lying adjacent to the formal wooded gardens of Oakendene Manor. The new farmstead (MWS14063), associated with Oakendene on the western boundary of the park, comprised farm buildings forming a 3-sided L-shaped plan set around a courtyard, with a detached farmhouse. A track led eastward from the farmstead across the parkland before diverting south, toward a bridge over a brook or stream bounding the southern side of the park. The same path or trackway shown previously on the tithe map, which crosses diagonally along the southeast corner of the park, is shown. These routes provide an extant connection between the main road to Cowfold to the north (the A272), the Oakendene estate, Taintfield Wood and Kentstreet Road (now known as Kent Road). The former driveways, which provided access to the Oakendene Manor across the park, are no longer evident.

- 2.1.6 The 1875 OS provides some detail of an informal³ planting scheme, comprising a scattering of trees concentrated largely in the northwest of the park. Some trees are isolated, with others forming clusters or interrupted lines. Trees illustrated on the OS are predominantly non-coniferous, but there are occasional coniferous trees within the park, sited closer to the formal gardens of Oakendene Manor. There is a notable linear cluster of trees immediately southeast of Oakendene Manor, likely to have provided screening of views to and from it in that direction. Some of the tree lines within the parkland correspond to later field boundaries suggesting these are possible precursors to land division, evident on later maps. Overall, the planting scheme within the parkland appears to be of an informal design (“Informal Parkland”, as defined in the HLC, Bannister 2010a) (see **Figure 1**), which provided some continuity of the woodland character of the formal gardens adjacent to Oakendene Manor. Planting in the park, as illustrated on the historic OS, is likely to have contributed to the enclosed setting of Oakendene Manor. It is uncertain, based on the available evidence, if these long views south from Oakendene Manor were intentionally part of the original design of the informal parkland. The available evidence for planting regimes as described, suggests that long views into or out of the parkland formed part of its design.
- 2.1.7 Before the end of the 19th century (1896 OS, **Plate 5**), there were further changes to the parkland, which appears to have been significantly reduced in size following the creation of new field boundaries. These boundaries divided areas of the former parkland into separate fields and appear to follow the lines of previously existing trees. Some additional trees appear to have been planted to reinforce these new boundaries. A large linear lake was created along the western part of the southern boundary of the parkland, with a new boathouse established adjacent to its southeast corner. The previously established footpath, farm track and planting scheme within the remaining parkland appears unchanged. Alterations to the parkland appear to coincide with changes to Oakendene Manor and formal

³ Definition extracted from HLC Volume II (Bannister 2010a, 39) “*The Designed Landscape HLC type is divided into Formal and Informal sub-types. Where the park has been laid out according to a plan or guidance from a landscape designer, such as Capability Brown, these are described as ‘Formal’ whereas those which have a more organic origin through the clearance of field boundaries, instigated by the owner with no plan, these are identified as ‘Informal’.*”

gardens, comprising the erection of new buildings, the infilling of the lake and the creation of a new lake to the southwest of the house.

- 2.1.8 In the early 20th century (1912 OS, **Plate 6**), changes were made to the park, comprising a diversion of the farm track, resulting in its realignment diagonally across the field from the farmstead to the bridge over the lake. The footprint of the garden or yard associated with the farmstead expanded eastwards into what was parkland. A second boathouse was established adjacent to the bridge near the southern boundary of the former parkland. The 1912 OS indicates there was some tree loss within the northeast of the parkland, comprising the reduction of a linear grouping of trees, shown on the late 19th century OS maps, which had formerly provided screening for Oakendene Manor. This tree loss coincides with the creation of a new field boundary, defining a square area of land immediately south of Oakendene Manor. A small rectangular building was erected within the remaining parkland, east of the house.
- 2.1.9 The mid-20th century saw reorganisation of the former parkland adjacent to the house and gardens. This comprised the creation of field boundaries, dividing the land into smaller plots and establishing a tennis court northeast of the house (1956 OS, **Plate 7**). The boundary between the parkland and southern gardens of the house was altered and an additional field was created in the south of the former parkland with a new north-south boundary. These changes coincided with an expansion of the farmstead at Oakendene Manor, comprising the erection of numerous large farm buildings.
- 2.1.10 Later in the 20th century, many of the newly established field boundaries were subsequently removed, resulting in the creation of a large irregular shaped field. The tennis court was moved from northeast to the southwest of the house. Further changes comprised substantial redevelopment of the farmstead at Oakendene Manor. A new complex of buildings was erected on a larger footprint, incorporating land formerly within the parkland. This development was segregated from the parkland through the removal of vehicular access that formerly passed eastwards across the park. It is reported that former agricultural buildings were in use as an industrial estate from 1980 without planning permission but that Horsham District Council granted continued use in this form from 1982 (Baggs et al., 1987). By 1984, the complex was utilised for light engineering, with 28 firms occupying 38 buildings.
- 2.1.11 Modern satellite imagery evidences the growth of the industrial park, which was expanded southwards into the former parkland as far as the former boating lake.



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3. Location and landscape context

3.1 Location and boundaries

- 3.1.1 The parkland at Oakendene Manor is located approximately one kilometre (km) east of Cowfold, on the south side of the A272. The earliest known cartographic representation of the parkland at Oakendene Manor is shown on the 1839 Cowfold Tithe map (**Section 2**). No historic mapping pre-dating the tithe map exists, suggesting its development was part of a wider trend of late post-medieval gentrification of farmland (Bannister, 2010a). While the form of the parkland has changed over time and is no longer in parkland use, the historic parkland boundary defined on the 1839 Cowfold tithe map is used in this report as the basis for understanding its potential heritage significance, its potential contribution to the heritage significance of Oakendene Manor, as part of its setting and its sensitivity to change from Rampion 2.
- 3.1.2 To the northeast of the historic parkland is the grade II listed Oakendene Manor (NHLE 1027074) and gardens with adjacent areas of woodland. The northern boundary of the historic parkland, adjacent to the A272, comprises deciduous hedgerow sections (H_ID⁴ 77 and 81, **Plate 12**) up to 2m high, linked by a small grouping of trees (G_ID⁵ 218 and 219, **Plate 13**) with other individual deciduous trees along the line of the hedgerow (T_ID⁶ 274, 280, 317 and 318, **Plate 12**).
- 3.1.3 To the east of the historic parkland is Kentstreet Lane and agricultural fields with farmland and isolated farmsteads beyond. The eastern boundary of the historic parkland, at its northern end, initially comprises a linear belt of trees adjacent to Kentstreet Lane (G_ID 192) and then a short section of deciduous hedgerow (H_ID 80) with trees (T_ID 305 and G_ID 213 and 215) where it diverts westward (see **Plate 12** and **Plate 13**). The remainder of the eastern boundary is comprised of two long sections of deciduous hedgerow (H_ID 84 and 69), with numerous isolated trees along each length (T_ID 324 to 370 and 270 to 272, 275, 277, 279 and 281).
- 3.1.4 Along the southern boundary of the historic parkland is a stream and a long lake, both bordered by linear groups of trees and isolated trees. To the south, the ground rises steeply up to Taintfield Wood.
- 3.1.5 The western part of the former parkland is now occupied by the Oakendene Industrial Estate, which is bordered along the west by very tall line of cypress trees, which effectively segregate and screen the industrial park from the rest of the former parkland, now agricultural land.

⁴ Hedge identification number, as provided in the arboricultural survey data. See **Table D-2** and **Plate 13** in **Annex D**.

⁵ Group identification number, as provided in the arboricultural survey data. See **Table D-3** and **Plate 14** in **Annex D**.

⁶ Tree identification number, as provided in the arboricultural survey data. See **Table D-1** and **Plate 13** in **Annex D**.

3.2 Landscape and geology

- 3.2.1 Oakendene falls within the Low Weald National Character Area (NCA) and immediately southwest of the High Weald Area of Outstanding Natural Beauty (AONB). The Low Weald is a broad, low-lying clay vale. The underlying bedrock geology of Wealden Clays, result in a heavy clayey soil which supports mainly pastoral farming. Oakendene itself lies partially on an outcrop of superficial River Terrace deposits mapped by the British Geological Survey (BGS) (BGS, 2022) on the east side of Cowfold Stream, a tributary of the river Adur.
- 3.2.2 The historic parkland occupies gently undulating ground which slopes from approximately 20m above ordnance datum (AOD) in the north to 14m in the south. To the south of Oakendene, the ground rises steeply to Taintfield Wood.

3.3 Current management and use

- 3.3.1 Within the boundary of the historic parkland, as defined on the 1840 tithe map, the land is primarily in agricultural use, as pasture, whilst the western part is now an industrial estate.
- 3.3.2 The land within the historic parkland under agricultural use is divided into four fields by a mixture of hedgerows with individual trees and linear groups of trees. The arboricultural survey (**Annex D**) recorded the hedgerows as being in a good or fair condition, estimated between 2 and 5m high, and generally comprising a mix of common dogwood, hawthorn, ash and blackthorn. The survey also identified that some of the hedgerows are managed whilst others are not.
- 3.3.3 Linear groups of trees which are located along some internal and external boundaries, as identified by the arboricultural survey (**Annex D**), often include a mix of oak, with hawthorn and blackthorn, though Alders were recorded along the southern boundary. The two tall linear groups of mature trees, G_ID 194 and 196, which form an internal field boundary, reach an estimated 15m in height and visually segregate the eastern part of the former parkland from the west. In the northwest, adjacent to the house and gardens, there is rougher pasture with numerous trees in clumps.
- 3.3.4 During the historic environment site walkover (see **Section 1.3**) in October 2021, it was observed that drainage was fairly poor with the ground conditions being generally wet and particularly waterlogged near the southern boundary adjacent to the stream where ground levels are lower, and also along certain field boundaries where surface water was observed.

3.4 Views

- 3.4.1 Views into and out of the former parkland are limited from the north and east as a result of existing tall treelines and hedges, and the local topography. The modern industrial estate in the west includes a high tree line, restricting views in and out of the parkland in that direction.
- 3.4.2 Approaching the former parkland from the south, along the public right of way (PRoW 1786) which leaves Taintfield Wood (**Plate 11**), the elevation of the hill permits distant views of the house across the agricultural fields within the former

parkland. However, moving downhill, closer to the southern boundary of the historic parkland, the high tree belt screens views northwards towards the house.

- 3.4.3 The higher elevation occupied by the house and the northern part of the former parkland, affords longer views south across the former parkland toward the hill and Taintfield Wood. However, views southeast and eastwards from the house are limited by the treelines and individual trees within the former parkland and within the immediate grounds of the house itself.



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4. Approaches and drives

- 4.1.1 The main entrance to Oakendene Manor is off the A272 to the west of the house. This is a shared access with the modern industrial estate. This access is first shown on the 1839 Cowfold tithe map (**Plate 2**) and was later partially diverted and rerouted following development of the farmstead and aviary and landscaping of the gardens around the house. This track was then used to provide access to the farmstead (**Plate 3**) before it was developed into the industrial estate. Approximately 60m along the shared access road to the industrial estate and Oakendene Manor the private driveway to the house itself diverts northeast through the wooded gardens. The road which leads through the industrial estate provides modern vehicle access to the southwest corner of the fields within the former parkland.
- 4.1.2 Historically, the parkland was directly accessible from the north by a separate track which also led to Oakendene Manor (**Plate 2**), connecting with access from the northwest. By 1875, northern access through the parkland was moved westwards into the wooded gardens.
- 4.1.3 A PRow (1786) crosses the southwest field within the former parkland. This leads from the west through the modern industrial park and is a continuation of the PRow (1786) which approaches the former parkland from the south at Taintfield Wood. This PRow appears to follow a path first identified on the 1839 Cowfold tithe map (**Plate 2**).
- 4.1.4 Connectivity between Oakendene Manor and the former parkland is limited to a small gate in the fence line between the gardens and agricultural fields, and informal private footpaths, leading primarily around the borders of the fields.



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5. Surviving features of historic interest

- 5.1.1 There is no evidence to indicate that there were any structural features associated with the parkland, except the house and potential garden features to the northeast.
- 5.1.2 The overall plan view of the diminished 19th century parkland is intact, except with the loss of the western part which is occupied by the modern industrial estate and with the remaining land primarily under agricultural use. Additionally, whilst there have been some minor changes to the boundary between the formal gardens and the wider parkland, the physical relationship is largely unchanged.
- 5.1.3 There is survival of some internal land division which mapping indicates were established at the latter end of the 19th century.
- 5.1.4 The historic path crossing the parkland survives as a PRow (1786).
- 5.1.5 The arboricultural survey (**Annex D**) recorded mature oak trees which correspond to individual trees or groups of trees depicted on historic OS mapping. Some of these trees form part of an existing field boundary, with hedgerows and younger trees, whilst others are distinctly separate. Outside the extent of the arboricultural survey, when comparing historic mapping with modern satellite imagery (**Annex A**), there are trees and groups of trees surviving which correspond to those shown on historic mapping, particularly within the northwest of the former parkland, nearer to the house.
- 5.1.6 Some former parkland features observed on historic mapping which are no longer extant may survive as archaeological remains, including the former access track from the north, former field boundaries and trees subsequently removed, which may be present as tree boles. Numerous features have been identified in the LiDAR data, including linear ditches and banks, which appear to be remnants of former internal land divisions and a possible access track from the north toward Oakendene Manor (**Plate 11**). Geophysical survey has been undertaken within the part of the former parkland which falls within the Proposed DCO Order Limits (fields 258, 259, 260, 261 and 262), which has recorded linear anomalies (258_1, 261_1 and 261_2) corresponding with those features identified in the LiDAR data (RED, 2022; **Annex C**). The geophysical survey also detected an amorphous area of enhanced magnetism (260_4) in the western part of the southern field, which broadly corresponds to an area previously defined as a separate field on the 1896 OS (**Plate 5**), 1912 OS (**Plate 6**) and 1956 OS (**Plate 7**). There may have been landscaping or infilling at this location. Other geophysical anomalies were also identified which do not correspond with any historic map feature or field observation. These include some linear features which appear to relate to ploughing or other modern agricultural activity, and a couple of comparable weak circular anomalies of unclear origin with no known association with the former parkland.
- 5.1.7 The lake which survives along the historic southern boundary, is the former boating lake associated with Oakendene Manor, created in the late 19th century. The location of the former boating house is now occupied by the southern end of the industrial park.

- 5.1.8 There is a small pond possibly associated with extraction activity along the southern border, which was first shown on the 1839 Cowfold tithe map. It was not possible to determine if the pond is still extant or had been infilled, due the dense vegetation.
- 5.1.9 Traces of former tennis court and small outbuildings from the mid-20th century appear to survive on the northern perimeter of the parkland, east of the house.
- 5.1.10 The historic parkland at Oakendene is not subject to any legal heritage designation. Oakendene Manor (NHLE 1027074) is a country house of 18th century or earlier date and is a grade II listed building located within private gardens on the northeast side of the former parkland boundary. The National Heritage List for England entry for Oakendene Manor is provided in **Annex B**.
- 5.1.11 The house and formal gardens at Oakendene form an Archaeological Notification Area (ANA), *Oakenden Manor Medieval Historic Farmstead, Cowfold* (ANA Horsham 139), as defined by WSCC.⁷
- 5.1.12 The parkland is identified in the HER, with a related monument record located at Oakendene Manor (MWS96). There is also a HER monument record located within the north of the modern industrial estate which relates to the site of the former historic farmstead (MWS14063).

⁷ Information provided by WSCC within HER data 2022

6. Heritage significance and contribution of setting

6.1 Summary of heritage values of the historic parkland

6.1.1 **Section 2** outlines the historic development of the parkland at Oakendene, whilst **Sections 3, 4 and 5** describe the existing character, views and surviving features.

6.1.2 Whilst providing the setting to Oakendene Manor, the historic parkland is judged to be of no more than local interest in its own right. This is due to its date, degree of change, lack of any elements which were influential in the development of design or taste and lack of any association with significant persons. The historic parkland is therefore considered to be of low heritage significance derived from the following historic and archaeological interests:

- A 19th century historically designed landscape – an *informal parkland* (HWS2285⁸, as defined in the Sussex HLC) (see **Figure 1**) for Oakendene Manor (NHLE 1027074).
 - ▶ It is evidenced in this report that field boundary and planting regime changes since the mid-1800s progressively diminished the boundary of the parkland, which is no longer in parkland use and is presently under agricultural use;
 - ▶ The overall form of the former historic parkland is still legible in the changed landscape but in plan-view through surviving relic field boundaries;
 - ▶ Surviving trees from historic planting regime (as evidenced through historic mapping, arboricultural survey (**Annex D**) and site walkover); and
 - ▶ Physical and visual relationship with Oakendene Manor (see **paragraph 6.1.3** for discussion on setting of the parkland).
- It is an example of historic landscape change across the Weald, characterised as post-medieval gentrification of farmland (Bannister, 2010a), which was one of numerous post-medieval processes which redefined the medieval landscape (together with farming and industrialisation) (Bannister 2010b, 24); and
- Archaeological potential for former parkland features (as identified through map regression, LiDAR analysis and geophysical survey), limited to possible remnants of the following:
 - ▶ former access track;
 - ▶ former field boundaries and trees;
 - ▶ localised landscape activities relating to drainage; and
 - ▶ unknown circular features as identified on the geophysical survey.

⁸ HLC reference number as provided in the HER data (WSCC, 2022)

- 6.1.3 The historic parkland is set within a rural landscape, with the key positive aspect of its setting being the proximity of Oakendene Manor and the visual relationship with the house (though limited to the western and southern areas of the former parkland). The visual connection helps to maintain the historical connection between the parkland and the house for which it was originally designed and therefore contributes to its aesthetic and historic interests. The afforded longer views south (limited from within the northern areas of the parkland) toward the Taintfield Wood also provide some continuity of the rural character contributing to the aesthetic value of the parkland. Elsewhere, the existing topographic conditions, planting and the industrial estate, all preclude the visual connectivity between the historic parkland and the surrounding landscape to the west, north and east. The presence of the industrial estate has an urbanising effect on the setting of the parkland which is visually mitigated by substantial planting along the eastern boundary of the industrial estate. The noise environment is typical of a rural landscape but with some traffic noise from the adjacent A272 and Kentstreet Road, and activity on the industrial estate. Overall, the setting of the parkland is considered to make a moderate contribution to its heritage significance.
- 6.1.4 The contribution that the historic parkland makes to significance of Oakendene Manor as setting, is discussed separately in **Section 6.2**.

6.2 Historic parkland as setting of Oakendene Manor

- 6.2.1 This section discusses the historic parkland as part of the setting of Oakendene Manor and how it may contribute its heritage significance.⁹
- 6.2.2 The immediate setting of Oakendene Manor comprises the gardens to the north and west, and agricultural land to the south and east. The wooded gardens, through which access to the house is gained, creates an enclosed setting precluding views of the A272 and rural landscape to the north and west. The agricultural land immediately south and east is the former parkland which is under pasture and retains some parkland trees. Whilst the parkland use and character has changed, it provides a rural agrarian setting to Oakendene Manor. Views eastwards from the house are limited to the existing treeline and hedge which formed the eastern boundary of the parkland on the 1896 OS mapping. The local topography and the relatively open nature of the former parkland and the presence of the large lake to the south of the house allow for long views to and from the wider rural wooded landscape. This visual connectivity reflects the historical connection between Oakendene Manor, the former parkland and land to the south (including Taintfield Wood), which were all under the same ownership at the time the tithe map was drawn up. However, it is still unclear if these long views south from the house were intentionally part of the original design of the informal parkland. The planting scheme detailed on the 1875 OS, looks to create a setting for the house with a relatively enclosed character but with possible narrow framed views south through the trees.

⁹ A full assessment of heritage significance of Oakendene Manor is not included within this report and will be provided in the Environment Statement.

6.2.3 The setting of Oakdene Manor is considered to make a moderate contribution to its heritage significance.



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7. Potential impacts

- 7.1.1 Rampion 2 has the potential to introduce the following impacts, which could affect the heritage interests of the parkland and the setting of Oakendene Manor:
- Removal of surviving relic parkland boundary;
 - Removal of surviving parkland trees;
 - Impact potential archaeological remains associated with the former parkland, anticipated to be of low heritage significance;
 - Erode the rural character of the setting of Oakendene Manor;
 - Change long views to and from Oakendene Manor; and
 - Introduce urban elements into the setting of Oakendene Manor.
- 7.1.2 As referred to in **Section 1**, the results of this assessment have been incorporated into the indicative landscape planting proposals and will inform detailed design post-consent.

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8. Glossary of terms and abbreviations

Term or Acronym	Definition
ANA	Archaeological Notification Area
Barrow	Artificial mound of earth, turf and/or stone, normally constructed to contain or conceal burials.
Development Consent Order (DCO)	This is the means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects, under the Planning Act 2008.
Environmental Impact Assessment (EIA)	The process of evaluating the likely significant environmental effects of a proposed project or development over and above the existing circumstances (or 'baseline').
Environmental Statement (ES)	The written output presenting the full findings of the Environmental Impact Assessment.
HER	Historic Environment Record
Heritage	The historic environment and especially valued assets and qualities such as historic buildings and cultural traditions.
Historic England	The public body that champions and protects England's historic places.
Historic Landscape Character (HLC)	The identification and interpretation of the varying historic character within an area that looks beyond individual heritage assets providing understanding of the whole landscape and townscape area into HLC Types.
km	kilometres
Listed Building (LB)	A building which is for the time being included in a list compiled or approved by the secretary of state, any object or structure fixed to the building; any object or structure within the curtilage of the building which, although not fixed to the building, forms part of the land and has done so since before 1 July 1948 shall be treated as part of the building.
LPA	Local Planning Authority

Term or Acronym	Definition
Monument Unique Identification (MonUID)	This is the reference number or code for known assets, sites and artefacts contained within the Historic Environment Records.
National Heritage List for England (NHLE)	is the only official, up to date, register of all nationally protected historic buildings and sites in England - listed buildings, scheduled monuments, protected wrecks, registered parks and gardens, and battlefields.
Nationally Significant Infrastructure Project (NSIP)	Nationally Significant Infrastructure Projects are major infrastructure developments in England and Wales which are consented by DCO. These include proposals for renewable energy projects with an installed capacity greater than 100MW.
NHLE	National Heritage List for England
Ordnance Survey (OS)	Ordnance Survey is the national mapping agency for Great Britain. Since 1 April 2015 part of Ordnance Survey has operated as Ordnance Survey Ltd, a government- owned company, 100% in public ownership.
Proposed Development	The development that is subject to the application for development consent, as described in Chapter 4: The Proposed Development, Volume 2 of the ES (Document Reference: 6.2.4).
RED	Rampion Extension Development Limited (the Applicant)
SNDPA	South Downs National Park Authority
The Applicant	Rampion Extension Development Limited (RED)
UXO	Unexploded Ordnance
West Sussex Historic Environment Record (HER)	This record collection provides details of all known archaeological assets, sites and former archaeological events within West Sussex.
WSCC	West Sussex County Council

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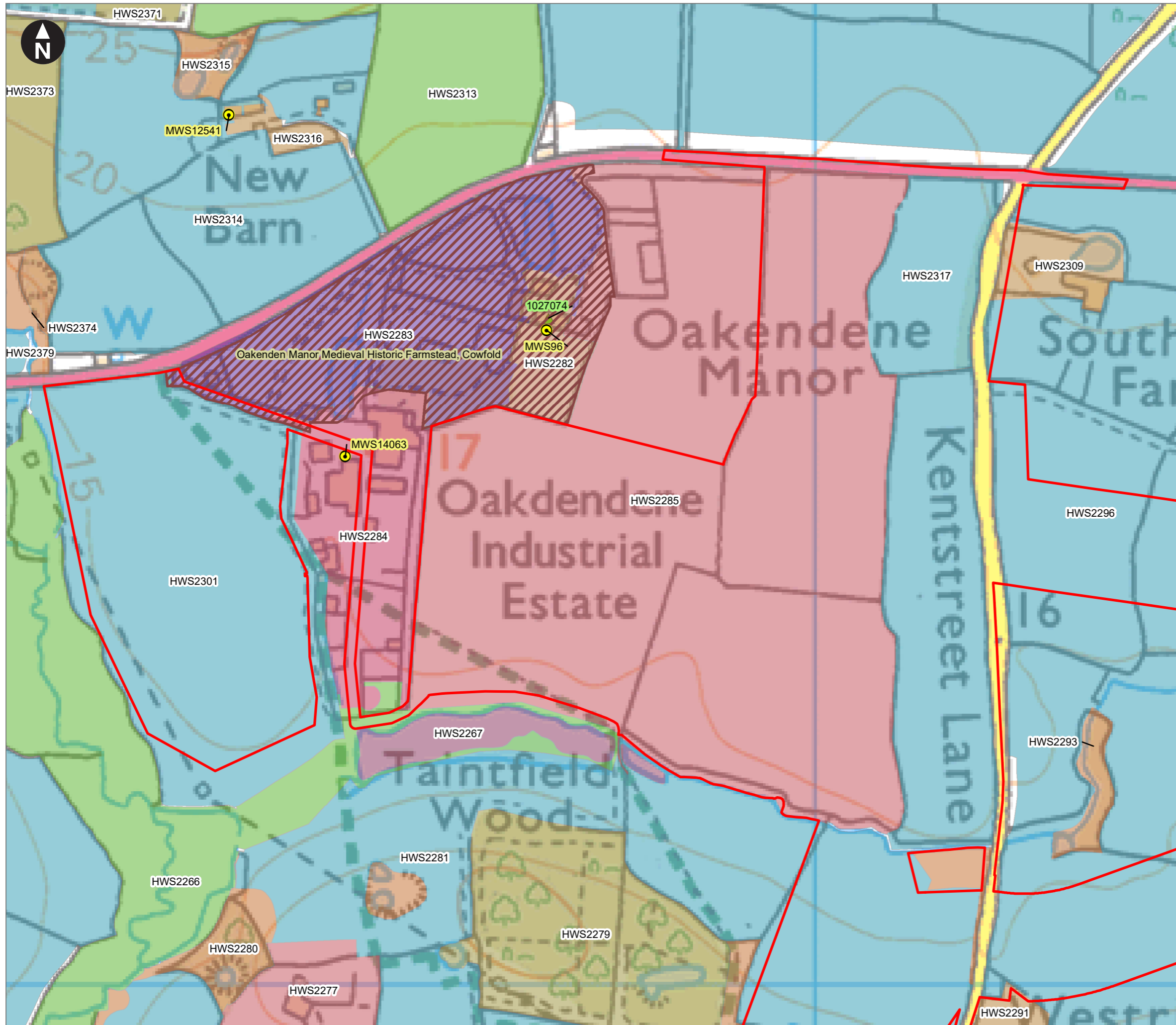
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Figures

Figure 1 HER and NHLE data (2022)

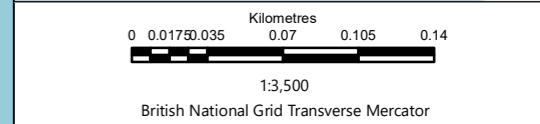
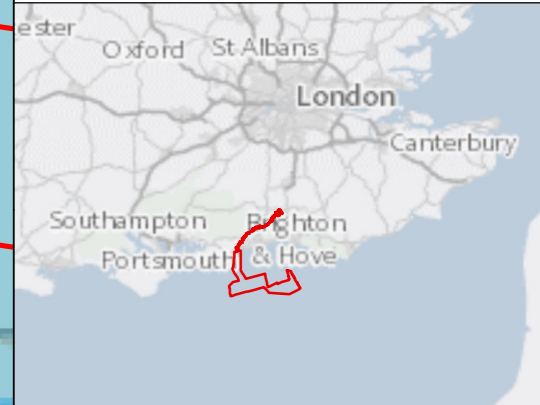


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Key

- PEIR Assessment Boundary
- HER monument (point)
- Listed building
 - Grade II
- Archaeological Notification Area
- Historic Landscape Character
 - Assarts
 - Expansion - other
 - Formal parkland
 - Historic dispersed
 - Informal Fieldscapes
 - Informal parkland
 - Lakes
 - Other Industry
 - Plantations
 - Regenerated



Rampion Extension Development

Rampion 2 Offshore Wind Farm
 Figure 1 HER and NHLE data (2022)
 Oakendene parkland: historic landscape assessment

System Identifier: 42285-WSPE-ES-ON-FG-OH-0001				Version: 1.0
Company: WSP	Drawn By: BRYAA	Chk/Prvrd: ATKIS	Drawn Date: 22/11/2022	Status: FINAL

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Annex A

Cartographic and aerial photographic evidence for the development of the historic parkland

Plate 1 1798 Ditchling Ordnance Survey Drawing (British Library Online)



Plate 2 1839 Cowfold Tithe map (Genealogist 2022) with apportionment numbers

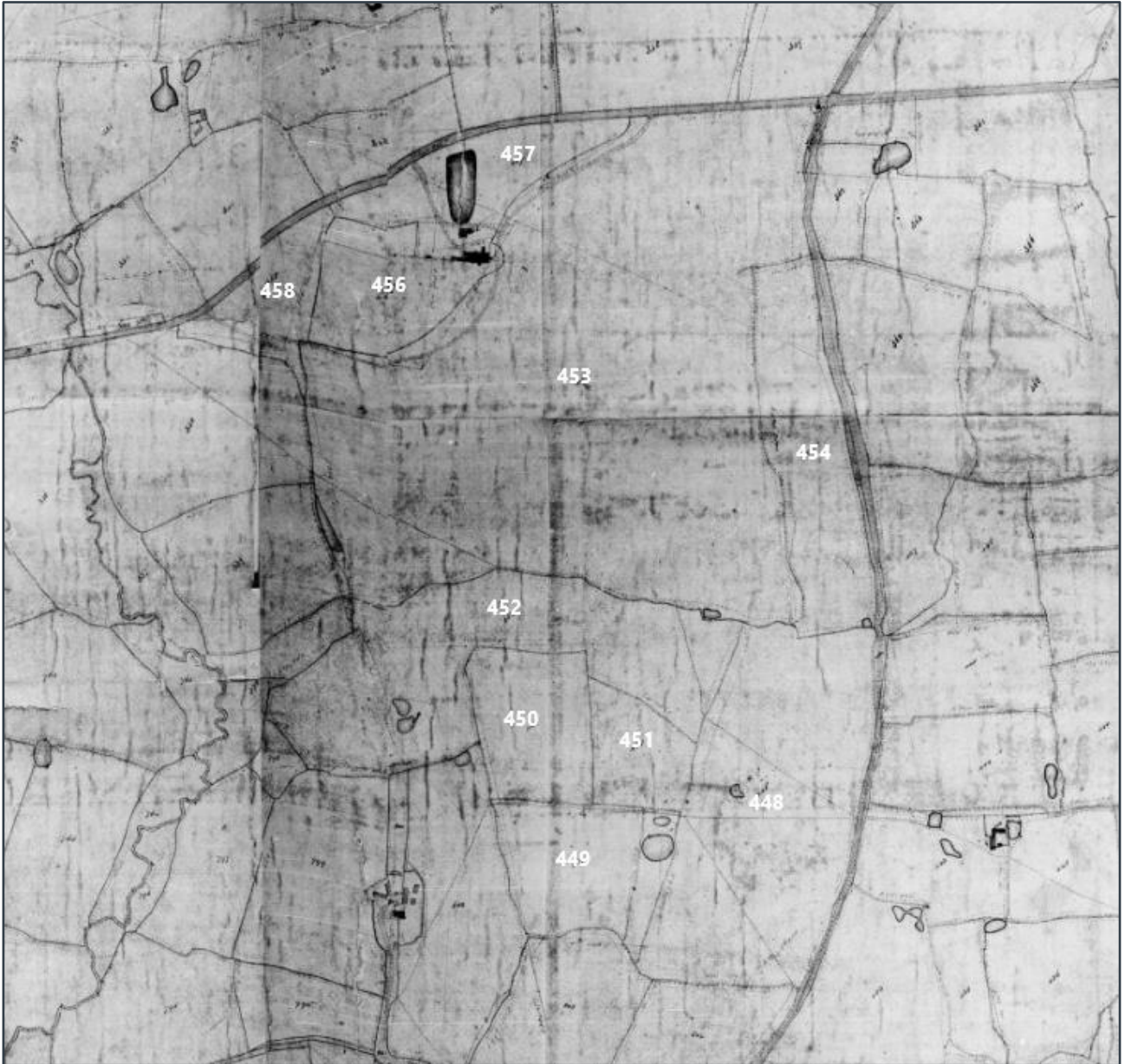


Plate 3 1839 Cowfold Tithe map (Genealogist 2022) with parkland highlighted



Plate 4 1875 Ordnance Survey 1: 10,560



Plate 5 1896 Ordnance Survey 1:10,560



Plate 6 **1912 Ordnance Survey 1:10,560**



Plate 7 1956 Ordnance Survey 1:2,500



Plate 8 1959 Aerial photo (raf_58_3012_f21_0322)



Plate 9 2001 Google Earth Image



Plate 10 2018 Google Earth Image



Annex B

Heritage Records for Oakendene

Tithe apportionments

Table B-1 Tithe apportionments

Plot	Name	Cultivation	Landowner	Occupier
448	Great Taint field	Arable	Mark Pringle Esquire	James Anscombe Esquire & Mark Pringle Esquire
449	Little Taint field	Arable	Mark Pringle Esquire	James Anscombe Esquire & Mark Pringle Esquire
450	Furze field	furze	Mark Pringle Esquire	James Anscombe Esquire & Mark Pringle Esquire
451	Taint field wood	wood	Mark Pringle Esquire	James Anscombe Esquire & Mark Pringle Esquire
452	Banky mead	Pasture	Mark Pringle Esquire	James Anscombe Esquire & Mark Pringle Esquire
453	Park	Pasture	Mark Pringle Esquire	James Anscombe Esquire & Mark Pringle Esquire
454	The Cunyiew	Arable	Mark Pringle Esquire	James Anscombe Esquire & Mark Pringle Esquire
456	Oakendean House	House	Mark Pringle Esquire	James Anscombe Esquire & Mark Pringle Esquire
457	Plantation	Plantation	Mark Pringle Esquire	James Anscombe Esquire & Mark Pringle Esquire
458	Plantation	Plantation	Mark Pringle Esquire	James Anscombe Esquire & Mark Pringle Esquire

West Sussex HER Records

Table B-2 HER monument records

MonUID	PrefRef	Name	MonType
MWS14063	MWS14063	Yard associated with Oakendene (Oakendean), Cowfold	Farmstead
MWS96	MWS96	Parkscape - Oakendene Manor	Park

Table B-3 Historic Landscape Character (HLC)

HLCUID	Broad Type	HLC Type	Period	Summary
HWS2266	Fieldscales	Informal Fieldscales	Medieval	Irregular piecemeal enclosure
HWS2267	Water	Lakes	Post Medieval to Modern	Mill ponds Ponds
HWS2277	Designed Landscapes	Informal parkland	Post Medieval to Modern	Large landscaped garden Ponds
HWS2279	Woodland	Plantations	Unknown	plantation broadleaved, Ponds
HWS2280	Woodland	Regenerated	Unknown	Regenerated - wood Ponds mine pits
HWS2281	Fieldscales	Assarts	Medieval	Cohesive Assart Ponds
HWS2282	Settlement	Historic dispersed	Medieval	Large Farmstead manor site moat
HWS2283	Designed Landscapes	Formal parkland	Unknown	Large landscaped garden isolated tree

HLCUID	Broad Type	HLC Type	Period	Summary
				clumps Ponds
HWS2284	Industry	Other Industry	Post Medieval to Modern	Factories
HWS2285	Designed Landscapes	Informal parkland	Unknown	Post-medieval gentrification isolated tree clumps
HWS2291	Settlement	Expansion - other	Post Medieval to Modern	Large Farmstead Ponds
HWS2293	Woodland	Regenerated	Unknown	Regenerated - wood Ponds mine pits
HWS2296	Fieldsapes	Assarts	Medieval	Cohesive Assart Ponds
HWS2301	Fieldsapes	Assarts	Medieval	Cohesive Assart Ponds
HWS2309	Settlement	Expansion - other	Post Medieval to Modern	Large Farmstead Ponds
HWS2313	Fieldsapes	Informal Fieldsapes	Post Medieval to Modern	Modern field amalgamation Ponds
HWS2314	Fieldsapes	Assarts	Medieval	Cohesive Assart Ponds
HWS2315	Woodland	Regenerated	Unknown	Regenerated - wood mine pits Ponds
HWS2316	Settlement	Expansion - other	Unknown	Large Farmstead
HWS2317	Fieldsapes	Assarts	Medieval	Cohesive Assart

HLCUID	Broad Type	HLC Type	Period	Summary
HWS2373	Woodland	Plantations	Unknown	plantation broadleaved,
HWS2374	Woodland	Regenerated	WW I to WW II	Regenerated - wood Ponds
HWS2379	Fieldsapes	Assarts	Medieval	Cohesive Assart Ponds

Historic England Listed building entry for Oakendene Manor^{10,11}

Official list entry

Heritage Category: Listed Building

Grade: II

List Entry Number: 1027074

Date first listed: 28-Nov-1980

Statutory Address 1: OAKENDENE MANOR, BOLNEY ROAD

Location

Statutory Address: OAKENDENE MANOR, BOLNEY ROAD

The building or site itself may lie within the boundary of more than one authority.

County: West Sussex

District: Horsham (District Authority)

Parish: Cowfold

National Grid Reference: TQ 22752 22621

Details

COWFOLD BOLNEY ROAD 1. 5404 Oakendene Manor TQ 22 SW 17/605

II

¹⁰ Historic England, (n.d.). *Oakendene Manor*. [Online] Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1027074> [Accessed 22 March 2023].

2. C18 or earlier house refronted about 1820. Two storeys and attic. Five windows. Stuccoed and rusticated. Dentilled cornice and parapet. Slate roof. Windows with keystones over and glazing bars intact. Porch of solid type with dentilled cornice and parapet. Two attic windows in gable ends with casement windows and old glass. Wing behind of 4 windows and lower elevation to west.

Listing NGR: TQ2275222621

Legacy

The contents of this record have been generated from a legacy data system.

Legacy System number:

299159

Legacy System:

LBS

Legal

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.

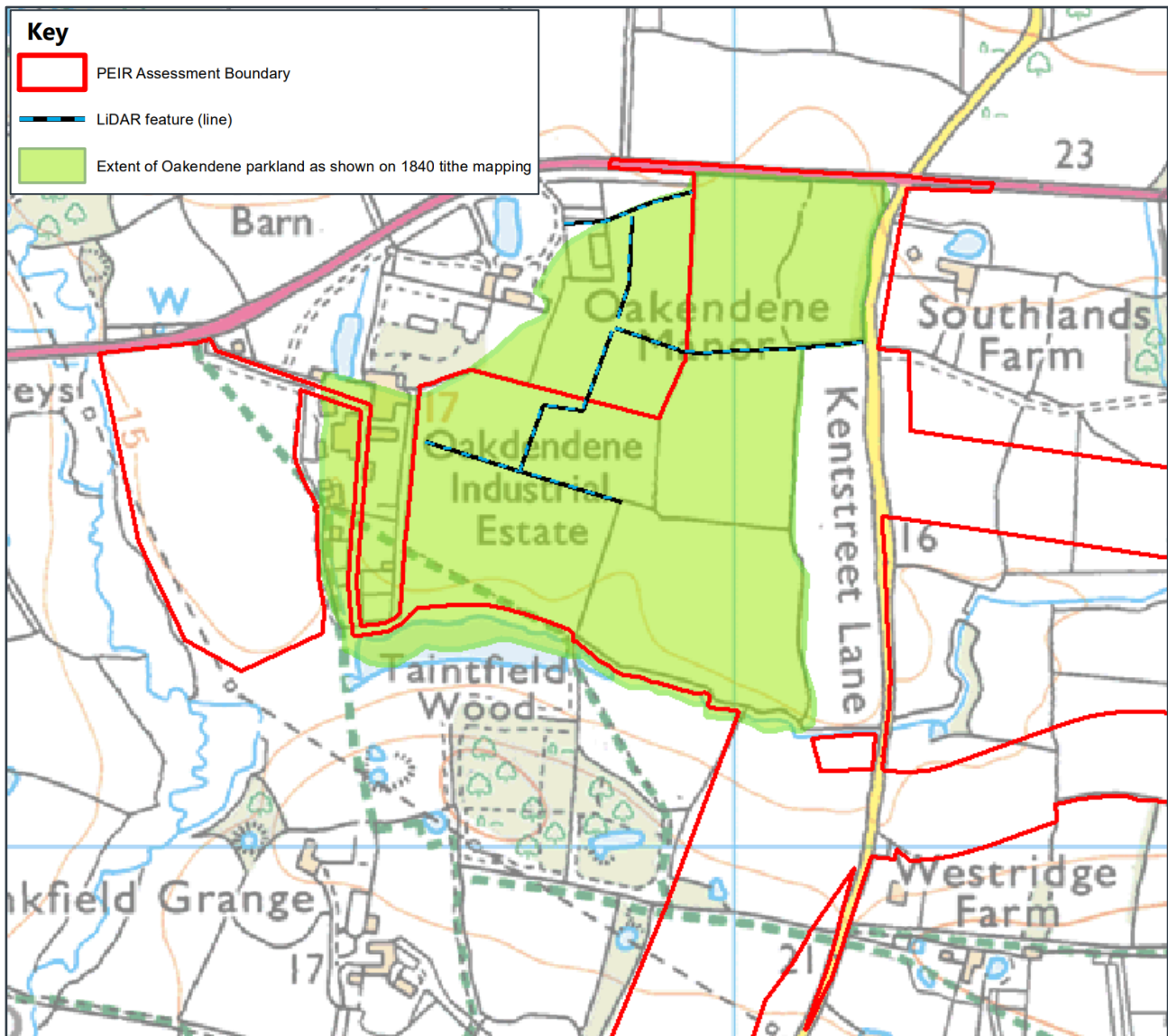


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Annex C

LiDAR and geophysical survey evidence

Plate 11 LiDAR features



Onshore Archaeological Geophysical Survey Report extract from Table 5.1 Detailed discussion of results by Field and Figures 6.117 to 6.119: Interpretation of processed gradiometer data (RED, 2022).



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Annex D

Arboricultural survey

The following data is taken from draft version of the arboricultural survey dataset produced in October 2021 by The Environmental Partnership (TEP). The arboricultural survey was undertaken within the PEIR Assessment Boundary. The survey identified existing trees (individual and groups) and hedgerows, including relevant information on species, estimated relative age and size. A summary of these survey results, relevant to Oakendene, is provided below and incorporated into relevant sections of this report. **Tables D-1 to D-3** provide details of the recorded trees, hedges and groups of trees, whilst **Plate 12** and **Plate 13** show their location.

Table D-1 Arboricultural survey data - trees

Tree ID	Common Name	Tree height (m)	Life stage	Condition	Comments
234	Cider gum	11	Middle Age	Fair	Individual tree within dense cypress hedge. High crown form. Some minor dead wood in canopy. Suppressed
235	Field maple	11	Middle Age	Good	Individual tree within cypress hedge. Bifurcate above 1.5m with Good union. Some pruning wounds and small stubs. Slightly suppressed
236	Cider gum	11	Middle Age	Good	Large individual tree within cypress hedge. High crown. Lower canopy suppressed. Some minor dead wood. Generally free from defects

Tree ID	Common Name	Tree height (m)	Life stage	Condition	Comments
244	Pedunculate oak	7	Middle Age	Fair	Medium sized tree. Suppressed to East by larger tree. Some pruning wounds and stubs. Large amount of lichen on main stem. Some dead wood in crown
245	Pedunculate oak	11	Mature	Good	Large open grown tree at edge of hedgerow. Broad Crown. Numerous dead branches including some well decayed pieces. Branch socket cavities. Large dead limb to East with flaking bark.
246	Horse chestnut	3	Middle Age	Fair	Small horse chestnut to Lake Edge. Browning to leaves. Symmetrical canopy. No major defects.
247	Common hawthorn	16	Mature	Good	Very large open grown tree. Major limb failure to West with large tearout wound and decay. Several other failure points within crown. Large suspended dead limb in upper canopy. Large fungal fruiting bodies at base to South. Good vigour
248	Pedunculate oak	12	Middle Age	Good	Large oak along hedgeline to field boundary. Some deadwood visible. Some ivy growth to stem. Some epicormic growth. Dense canopy. No major defects visible.
250	Pedunculate oak	12	Mature	Good	Large tree, suppressed by adjacent. Some major limb failures with suspended dead wood. Bifurcate with

Tree ID	Common Name	Tree height (m)	Life stage	Condition	Comments
					almost horizontal second stem. Some cavities and decay.
253	Pedunculate oak	13	Mature	Good	Large open grown tree on edge of ditch. Some large broken limbs with decay. Dead wood throughout. Numerous splits and cavities. Good vigour
254	Willow species	12	Middle Age	Good	Tall multi stem willow along riverbank. Tight canopy. No major defects visible. Inspection restricted.
255	Pedunculate oak	12	Mature	Good	Large field boundary tree next to ditch. Numerous large dead limbs, some well decayed. Some broken branches and stubs. Ivy into Crown. Bifurcate above 1.5m with Good union
256	Common ash	10	Middle Age	Good	Large ash along field boundary. Some signs of dieback but at least 75 percent canopy remaining. Inspection restricted by brambles.
257	Pedunculate oak	12	Middle Age	Good	Oak located to field boundary. Some deadwood visible. Lower canopy slightly crowded by understorey. No major defects noted.
258	Pedunculate oak	4	Middle Age	Poor	Declining tree with small canopy. Likely historic failure at 3m with regrowth. Dense ivy. Small crown with lots of dead wood

Tree ID	Common Name	Tree height (m)	Life stage	Condition	Comments
259	Pedunculate oak	11	Middle Age	Good	Good quality hedgerow tree next to ditch. Dead wood throughout. Some minor cavities. Ivy on main stem. Pruning wounds and stubs.
260	Common ash	10	Middle Age	Good	Ash located along field boundary. Some signs of dieback but around 75 percent canopy remaining. Woodpecker hole present on upper stem.
261	Pedunculate oak	11	Middle Age	Fair	Hedgerow tree next to ditch. Somewhat sparse crown. Some large pruning wounds. Dead wood in crown
262	Pedunculate oak	11	Mature	Fair	Large hedgerow tree next to ditch. Numerous cavities and splits throughout crown providing broad range of habitats. Large amount of dead wood including some full dead limbs. Good vigour overall
263	Common hawthorn	6	Middle Age	Fair	Hawthorn located along field boundary. Limited leaf growth. Overcrowded by bramble and blackthorn growth.
264	Pedunculate oak	12	Middle Age	Good	Oak located along field edge. Some deadwood present in canopy. Dead limb to West. No major defects noted.
265	Pedunculate oak	11	Mature	Good	Very large hedgerow tree. Large limb failure at 3m west with split and torn stub. Decay column with lifting

Tree ID	Common Name	Tree height (m)	Life stage	Condition	Comments
					bark on main leader. Several other large, failed limbs and stubs. Some large cavities
267	Pedunculate oak	13	Middle Age	Good	Oak located along field edge. Some deadwood present. Dead limb to East at 3m. Asymmetric canopy caused by close proximity to adjacent oak to South.
269	Pedunculate oak	13	Middle Age	Good	Large oak located along river, set back from field edge. Some deadwood present in canopy. Asymmetric form due to adjacent oak in close proximity to the north.
270	Pedunculate oak	12	Middle Age	Good	Oak located along field boundary. Some deadwood visible in canopy. No major defects noted.
271	Pedunculate oak	12	Middle Age	Good	Oak located along field boundary. Symmetrical canopy. Some deadwood present in canopy. No major defects noted.
272	Pedunculate oak	8	Middle Age	Dead	Small dead oak located along field boundary. Some areas of bark remaining at base.
274	Pedunculate oak	10	Middle Age	Good	Large roadside tree within hedge. Crown raised to North to clear road. Some large dead stubs, well decayed. Minor dead wood throughout

Tree ID	Common Name	Tree height (m)	Life stage	Condition	Comments
275	Pedunculate oak	12	Middle Age	Good	Oak tree located along field boundary. Small amount of deadwood present in canopy. No major defects noted.
277	Pedunculate oak	10	Middle Age	Good	Oak tree located along field boundary. Some deadwood present in canopy. Some epicormic growth and ivy to stem. Canopy impeded to South by adjacent tree.
279	Pedunculate oak	12	Middle Age	Good	Oak located along field boundary. Some deadwood visible in canopy. Small weeping wound where lower branch has been removed. Canopy impeded to south by adjacent tree
280	Pedunculate oak	10	Middle Age	Fair	Roadside tree set back from hedge by 1m. Slightly sparse crown. Major and minor dead wood in crown, some well decayed. Some cavities and decay pockets. Broken branches and stubs
281	Pedunculate oak	12	Middle Age	Good	Oak located along field boundary. Some deadwood present in canopy. Some epicormic growth and ivy to stem. Canopy impeded by adjacent trees.
285	Pedunculate oak	10	Middle Age	Good	Oak tree located along field boundary adjacent to river in scrubby area. Some deadwood present in canopy. No major defects noted.

Tree ID	Common Name	Tree height (m)	Life stage	Condition	Comments
286	Pedunculate oak	7	Middle Age	Fair	Oak tree located in scrubby area along field boundary, adjacent to river. Uneven canopy growth. Some deadwood visible in canopy. Some epicormic growth and ivy to stem.
289	Pedunculate oak	8	Middle Age	Poor	Predominantly dead oak located in scrubby area along field boundary, adjacent to river. One limb still with limited leaf growth. Remaining limbs dead. Extensive ivy growth to stem.
290	Pedunculate oak	12	Middle Age	Good	Oak located along field boundary. Deadwood present in canopy. Some epicormic growth and ivy to stem. Canopy impeded by adjacent trees to South.
293	Pedunculate oak	12	Middle Age	Fair	Oak located in scrubby area adjacent to river. Some deadwood in canopy. Extensive ivy growth to stem and branches. Canopy impeded by adjacent trees.
298	Common ash	8	Middle Age	Fair	Hedgerow tree. 25-50% Ash dieback in canopy with numerous dead limbs.
299	Pedunculate oak	7	Middle Age	Dead	Standing dead tree
300	Pedunculate oak	10	Middle Age	Fair	Hedgerow tree. Suppressed to North. Some dieback in Crown. Dead wood throughout. Some failed limbs and torn stubs

Tree ID	Common Name	Tree height (m)	Life stage	Condition	Comments
301	Pedunculate oak	6	Middle Age	Fair	Squat hedgerow tree. Dieback in Crown. Dead wood throughout canopy. Dense ivy on main stem. Epicormic growth throughout. Heavily burred main stem
302	Pedunculate oak	9	Middle Age	Fair	Hedgerow tree. Slightly sparse crown. Dead wood throughout. Ivy on main stem
303	Pedunculate oak	6	Middle Age	Dead	Standing dead tree
305	Pedunculate oak	13	Mature	Fair	Large tree within linear group. Slightly sparse crown with some tip dieback. Dead wood throughout including some large well decayed pieces. Some splits and tears
306	Pedunculate oak	9	Middle Age	Fair	Large hedgerow tree. Slightly sparse crown with tip dieback. Dead wood throughout canopy. Some small cavities and splits
307	Pedunculate oak	9	Middle Age	Fair	Large hedgerow tree. Slightly sparse crown with tip dieback. Dead wood throughout canopy. Some small cavities and splits
317	Pedunculate oak	9	Middle Age	Fair	Roadside tree within hedge. Crown raised to North. Dead wood throughout including some large well decayed pieces. Ivy on main stem

Tree ID	Common Name	Tree height (m)	Life stage	Condition	Comments
318	Pedunculate oak	14	Mature	Good	Large prominent roadside tree. Upright form. Some dead wood in crown including large well decayed pieces. Some small cavities, possible woodpecker holes in upper canopy.
324	Pedunculate oak	10	Middle Age	Good	Hedgerow tree. Broken limb with reaction wood to west. Small cavity at 4m West. Some dead wood in crown. Good vigour
325	Pedunculate oak	8	Middle Age	Good	Small hedgerow tree. Even crown form. Minor dead wood in crown. Dense blackthorn to base
326	Turkey oak	10	Middle Age	Good	Large hedgerow tree. Minor dead wood in crown. Dense blackthorn to base. Two large broken branches to west
327	Turkey oak	10	Middle Age	Good	Large hedgerow tree. Minor dead wood in crown. Dense blackthorn to base. Two large broken branches to north-west
328	Pedunculate oak	9	Mature	Fair	Large field boundary tree. Slight crown retrenchment. Dead and dying limbs to North with cavity into horizontal branch. Broken branch with turn stub in upper crown

Tree ID	Common Name	Tree height (m)	Life stage	Condition	Comments
329	Turkey oak	11	Middle Age	Good	Large hedgerow tree. Trifurcate at 1.5m with Good unions. Dead wood in crown. Some fusing limbs. Ni major defects
330	Pedunculate oak	10	Middle Age	Good	Large field boundary tree. Numerous dead branches and broken limbs. Some stubs. Decay pockets and small cavities.

Table D-2 Arboricultural survey data - hedges

Hedge ID	Common Name	Hedge height (m)	Hedge width (m)	Life stage	Condition	Comments
61	Western red cedar	2	1.5	Middle Age	Good	Dense hedge along field boundary. Good growth. Healthy looking plants. No major defects present
62	Dogwood species, Hawthorn species, Common ash, Blackthorn, Elder	2	2	Middle Age	Good	Mixed native hedgerow along field boundary. Vigorous growth
63	Field maple, Dogwood species, Hawthorn species, Blackthorn	2	1	Middle Age	Good	Mixed native hedgerow along field boundary.

Hedge ID	Common Name	Hedge height (m)	Hedge width (m)	Life stage	Condition	Comments
65	Common hawthorn, Blackthorn	2	1.5	Middle Age	Fair	Road and field side boundary hedge. Small gaps in places
66	Common hawthorn, Common ash, Blackthorn	1.5	2	Middle Age	Good	Partially managed boundary hedge
67	Field maple, Common hazel, Common hawthorn, Blackthorn	3	1.5	Middle Age	Fair	Field boundary hedge. Well managed to sides. Gappy
68	Field maple, Wych elm	3	2	Middle Age	Good	Part maintained roadside hedge
69	Field maple, Common hazel, Hawthorn species, Common ash, Blackthorn	1	2	Middle Age	Good	Mixed native hedge to field boundary. Patchy in some places but generally vigorous growth.
77	Common dogwood, Common hawthorn, Common ash, Blackthorn, Garden privet	2	2	Middle Age	Fair	Roadside hedgerow. Partially managed

Hedge ID	Common Name	Hedge height (m)	Hedge width (m)	Life stage	Condition	Comments
78	Field maple, Common hazel, Hawthorn species, Spindle tree species, Common ash, Privet species, Blackthorn	2.5	2.5	Middle Age	Good	Dense mixed native hedgerow along field boundary. Vigorous growth.
79	Field maple, Common dogwood, Common hawthorn, Common ash, Blackthorn	1.5	2	Middle Age	Good	Partially managed field boundary hedgerow
80	Field maple, Common hazel, Common hawthorn, Blackthorn	1	2	Middle Age	Fair	Unmanaged fragmentary hedgerow
81	Common dogwood, Common hawthorn, Common ash, Blackthorn	1.5	2	Middle Age	Good	Partially managed boundary hedge
84	Field maple, Common hawthorn, Blackthorn	1	2	Middle Age	Fair	Unmanaged and fragmentary field boundary hedge

Table D-3 Arboricultural survey data – group of trees

Group ID	Common Name	Height (m)	Life stage	Condition	Comments
158	Leyland cypress	12	Middle Age	Fair	Line of large trees along industrial estate boundary. Some deadwood in lower canopy. Crowded by adjacent field boundary trees. Inspection restricted along field boundary.
159	Field maple, Sweet chestnut, Blue gum eucalyptus, Cherry species, Pedunculate oak	12	Middle Age	Good	Line of large trees along field boundary. Some deadwood visible in canopies but no major defects visible.
162	Field maple, Cherry species, Pedunculate oak	6.5	Middle Age	Fair	Small group along boundary behind hedge. Some browning to cherry foliage. No major defects visible. Stem inspection restricted
167	Common alder, Willow species	9	Middle Age	Good	Group of alder and willow along lake Bank. Dense, vigorous growth.
169	Alder species, Willow species	7	Middle Age	Good	Dense group of alder and willow along riverbank. No major defects visible.
170	Alder species, Common dogwood, Willow species	9	Middle Age	Good	Group of alder and willow along riverbank. Some dogwood also present. Vigorous growth. No major defects noted.

Group ID	Common Name	Height (m)	Life stage	Condition	Comments
171	Blackthorn	3.5	Middle Age	Fair	3 small multi-stem blackthorn located along riverbank. Forming one canopy. Some deadwood visible.
174	Hazel species, Blackthorn, Pedunculate oak, Willow species	7	Middle Age	Good	Group of Hazel, willow and oak along field boundary. Some blackthorn growth beneath along base. Vigorous growth. No major defects noted.
177	Common hawthorn, Blackthorn	2.5	Middle Age	Fair	Outgrown hedgerow remnant surrounding large tree. Some multi-stemmed trees
178	Field maple, Common hazel, Common hawthorn, Wych elm	6	Middle Age	Good	Lapsed hedgerow and shrubby understorey groups to larger trees
179	Turkey oak, Pedunculate oak	17	Middle Age to Mature	Fair	Roadside and field boundary trees. Majority have reduced vigour and minor or moderate shoot tip die back.
180	Field maple, Common hazel, Common hawthorn, Common ash, Blackthorn, Wych elm	5	Middle Age	Fair	Lapsed hedgerow and understorey group to larger trees.
181	Field maple, Blackthorn	5	Middle Age	Fair	Scrubby blackthorn and field maple growth along field boundary. Overgrown with brambles.

Group ID	Common Name	Height (m)	Life stage	Condition	Comments
182	Turkey oak, Pedunculate oak	18	Middle Age to Mature	Fair	Long linear belt of mainly pedunculate oak trees with occasional turkey oak. Located on raised and undulating roadside bund adjacent ditch. Generally Good form and vigour but with at least 50% of trees with shoot tip dieback and slightly reduced vigour.
183	Alder species, Willow species	10	Middle Age	Good	Stand of alder and willow along riverbank to field boundary. Some deadwood present in largest alders but overall vigorous growth.
184	Field maple, Common hazel, Common hawthorn, Common ash, Blackthorn, Wych elm	5	Middle Age	Fair	Lapsed hedgerow and understorey group to larger trees.
185	Alder species, Willow species	7	Middle Age	Good	Group of alder and willow along riverbank. Set back from field edge. Vigorous growth. Inspection restricted by bramble growth
186	Common ash, Turkey oak, Pedunculate oak	16	Middle Age to Mature	Fair	Long linear belt of mainly pedunculate oak trees with occasional turkey oak and ash. Located on raised and undulating roadside bund adjacent ditch. Generally Good form and vigour but with at least 50% of trees with shoot tip dieback and slightly reduced

Group ID	Common Name	Height (m)	Life stage	Condition	Comments
187	Field maple, Hazel species, Hawthorn species	5	Middle Age	Fair	Scrubby group along river. Set back from field edge. Crowded growth. No major defects noted but inspection restricted by bramble growth.
188	Field maple, Pedunculate oak	9	Young to Middle Age	Fair	Single and multi-stemmed hedgerow trees
189	Common ash, Turkey oak, Pedunculate oak	20	Mature	Fair	Long linear belt of mainly pedunculate oak trees with occasional turkey oak and ash. Located on raised and undulating roadside bund adjacent ditch. Generally Good form and vigour but with at least 50% of trees with shoot tip dieback and slightly reduced
191	Field maple, Common hazel, Common hawthorn, Common ash, Blackthorn, Wych elm	5	Middle Age	Fair	Lapsed hedgerow and understorey group to larger trees.
192	Field maple, Common dogwood, Common hawthorn, Blackthorn, Pedunculate oak, Wych elm	20	Mixed Age	Good	Long linear belt of trees with semi-woodland composition. Large Broad oaks with lower understorey running along slightly raised roadside mound. Coppice stools throughout

Group ID	Common Name	Height (m)	Life stage	Condition	Comments
193	Alder species, Common hazel, Willow species	8	Middle Age	Good	Group of willow, alder and Hazel with some understorey blackthorn. Located along field edge next to river. Vigorous growth. No major defects noted.
194	Common ash, Aspen, Blackthorn, Pedunculate oak	12	Mixed Age	Fair	Linear group of Ash and oak, dieback variable including some possibly resistant individuals. Dense understorey of blackthorn and bramble. Some multi-stemmed forms
195	Field maple, Common ash, Pedunculate oak, Wych elm	12	Middle Age	Fair	Roadside broadleaf linear plantation adjacent roadside
196	Common hawthorn, Blackthorn, Pedunculate oak	15	Middle Age to Mature	Good	Linear group of large oaks with smaller hawthorn and blackthorn. Some moribund trees. Dead wood throughout. Cavities and splits. Good connectivity and screening.
199	Pedunculate oak	10	Middle Age	Good	Two small oaks located along field boundary, growing close together. Deadwood present in canopies. Epicormic growth and ivy to stems. Canopies impeded by adjacent trees.
201	Alder species	13	Middle Age	Good	Dense group of alders forming one canopy located in scrubby area adjacent to river. Ivy growth to some stems. No major defects noted

Group ID	Common Name	Height (m)	Life stage	Condition	Comments
202	Hawthorn species, Common ash, Blackthorn	3	Middle Age	Fair	Dense understorey growth along field boundary. Vigorous growth.
204	Field maple, Common hazel, Hawthorn species, Blackthorn	5	Middle Age	Good	Dense understorey growth along field boundary. Vigorous growth.
205	Field maple, Pedunculate oak	8	Middle Age	Good	Small oak and field maple growing in scrubby area adjacent to river. Canopy pushed up by understorey growth. No major defects noted.
206	Alder species, Willow species	10	Middle Age	Good	Dense row of alder along southern Bank of River. Occasional willow growth also.
207	Alder species, Willow species	8	Middle Age	Good	Dense row of alder and willow along southern riverbank.
208	Willow species	6	Middle Age	Good	Small group of willow located to field edge. Vigorous growth.
209	Willow species	4	Middle Age	Good	Small group of willow located to field edge. Vigorous growth.

Group ID	Common Name	Height (m)	Life stage	Condition	Comments
210	Pedunculate oak	12	Middle Age	Good	Group of oaks along field edge. Some deadwood visible in canopies. Some canopies crowded by adjacent trees and understorey shrubs.
211	Field maple, Hawthorn species, Blackthorn	6	Middle Age	Fair	Dense scrubby blackthorn understorey beneath oaks. Some hawthorn and field maple present.
213	Pedunculate oak	12	Middle Age	Fair	Group of 3 large oaks, part of wider linear feature. Generally, slightly sparse. Large pieces of dead wood throughout with some fully dead limbs. Some broken limbs and torn stubs
215	Pedunculate oak	12	Middle Age	Good	Group of 3 trees forming part of larger feature. Some slightly sparse crowns. Dead wood throughout. Some small cavities.
217	Pedunculate oak	11	Middle Age	Good	Group of 3 large trees near pond or wet area. Generally Good vigour with some minor structural defects. Large cavities observed. Some broken limbs with split stubs. Good habitat
218	Pedunculate oak	12	Middle Age	Fair	Oak trees around wet area or pond. Dieback noted in most trees with some sparse crowns. Dead wood throughout

Group ID	Common Name	Height (m)	Life stage	Condition	Comments
219	Common hawthorn, Goat willow	5	Middle Age	Fair	Dense group below larger trees. Multi-stemmed forms.

Plate 12 Arboricultural survey – trees and hedges

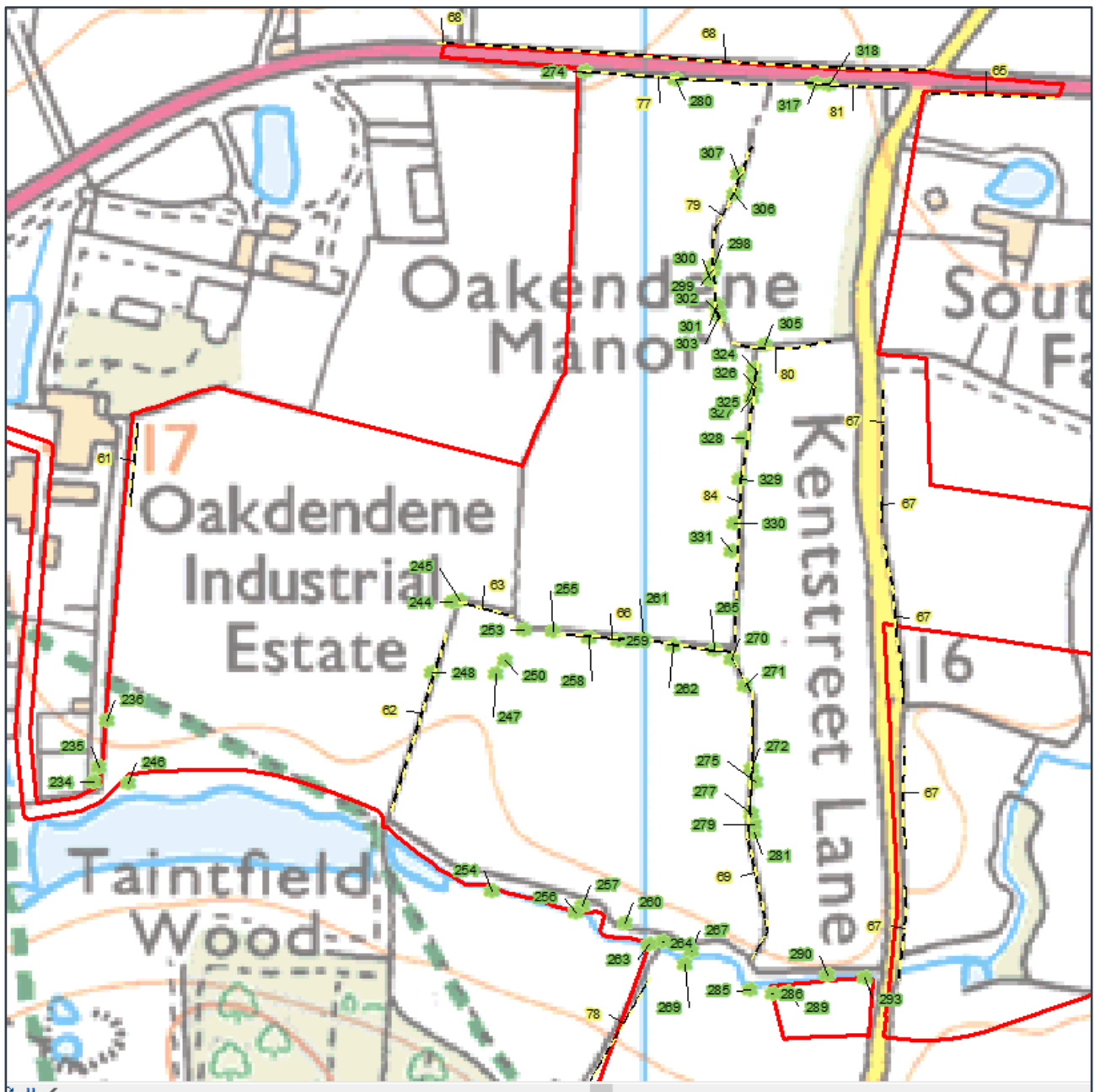


Plate 13 Arboricultural survey – groups of trees and hedges





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