

Preliminary Environmental Information Report

Chapter 11C: LANDMAP Aspect Areas: Baseline Descriptions and Sensitivity Assessments

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1.0 Introduction

1.1.1 This appendix sets out the baseline descriptions and landscape sensitivity assessments for the LANDMAP Aspect Areas which have been scoped into the LVIA following the application of the filtering process described in Appendix 11B.

1.1.2 The appendix is structured as follows:

- Section 2: Baseline Descriptions; and
- Section 3: Sensitivity Assessments.

2.0 Baseline Descriptions

2.1 Geological Landscapes Aspect Areas (GLAAs)

2.1.1 A description of the two GLAAs scoped into the assessment, as informed by Question 4 and Question 6 of the LANDMAP Survey, is set out in **Table 11C-1**.

Table 11C-1 LANDMAP Geological Landscape Aspect Areas: Baseline Description

GLAA	Description (Q4 and Q6)
Caldicot Level – Goldcliff (NWPRTGL031) - Host	<p><i>“Major section of the extensive coastal plain which dominates southern Newport. Represents a former area of estuarine marsh (Quaternary: Holocene) and although now reclaimed and drained is not heavily industrialised or urbanised. Surface has a “patchwork” appearance due to network of drainage furrows. Separated from Severn estuary by sea-wall. Includes very small raised area of Triassic and Jurassic limestones and mudrocks at Gold Cliff itself”.</i></p> <p>Contributors to the geological character of the area include:</p> <p><i>“Stratigraphic formation(s) - Very minor Mercia Mudstone Group (part; Upper Triassic, including Norian Stage), including Blue Anchor Formation; Penarth Group, including Westbury Formation and Lilstock Formation (Upper Triassic, Rhaetian Stage); and Lias Group (part): Blue Lias Formation (Lower Jurassic, Hettangian to Lower Sinemurian) (only at Gold Cliff itself).</i></p> <p><i>Superficial deposits - Estuarine alluvium (Quaternary: Holocene).</i></p> <p><i>Past processes – Coastal / estuarine”.</i></p>
Caldicot Moor (MNMTHGL086) - Host	<p><i>“Broad coastal flat representing reclaimed former saltmarsh adjacent to Severn estuary from which it is separated by a flood defence bank. Includes lowest part of the Nedern Brook valley at Caldicot and the St Bride”s Brook valley at Magor. Stream course canalised with banks and network of drainage ditches present. Typically, less than</i></p>

GLAA	Description (Q4 and Q6)
	<p><i>5 m above current sea level. (Quaternary: Holocene)</i>”.</p> <p>Contributors to the geological character of the area include:</p> <ul style="list-style-type: none"> • <i>“Superficial deposits - Estuarine alluvium/saltmarsh deposits (Quaternary: Holocene).</i> • <i>Active processes – Stream.</i> • <i>Past processes – Estuarine/saltmarsh”.</i>

2.2 Landscape Habitats Aspects Areas (LHAAs)

2.2.1 The filtering process described in **Appendix 11B**, identified 5 LHAAs within the 5km LVIA study area. However, the potential for significant effects to these LHAA’s is only likely to arise from direct effects where works or operations associated with the Proposed Development take place. As a consequence, the landscape assessment has been re-scoped to include only those LHAAs which lie within or partially within the PEIR Assessment Boundary of the Proposed Development (also referred to as host aspect areas) and therefore considers 3 LHAAs.

2.2.2 A description of the LHAAs scoped into the assessment, as informed by Question 24 of the LANDMAP Survey, is set out in **Table 11C-2**.

Table 11C-2 LANDMAP Landscape Habitats Aspect Areas: Baseline Description

LHAA	Description (Q24)
NWPRTLH054 - Host	<i>“The fields on this section of the Gwent Levels are mainly long narrow fields drained by reens, there are however occasional hedges. The reens are rich in plant species in particular hairlike pondweed Potamogeton trichoides, tussock sedge Carex elata and Arrowhead Sagittaria sagittifolia. 65 nationally rare and notable</i>

LHAA	Description (Q24)
	<i>invertebrates have also been recorded from the area. The land use is a mixture of pasture and hay / silage fields with some arable”.</i>
NWPRTLH033 - Host	<i>“The fields on this section of the Gwent Levels are a mixture of square hedge bound fields and long narrow fields drained by reens. The reens are rich in plant species and invertebrates with many nationally rare or notable species are present. The land use is a mixture of arable and pasture”.</i>
MNMTHLH088 - Host	<i>“The key features of this area are the flat grazed grassland fields that are criss-crossed by an extensive network of ditches called reens that give the "levels" area its very distinct nature”.</i>

2.3 Visual and Sensory Aspect Areas (VSAAs)

- 2.3.1 The filtering process described in **Appendix 11B**, identified 13 VSAAs within the 5km LVIA Study Area. However, field observations and the Viewpoint Analysis presented in **Appendix 11J** established that no significant visual effects are likely to occur beyond a distance of 1km. As a consequence, the landscape assessment has been re-scoped to include only those VSAAs which lie within or partially within a 1km buffer of the proposed solar farm and therefore considers 7 VSAAs.
- 2.3.2 A description of the 7 VSAAs scoped into the assessment, as informed by Question 3 of the LANDMAP Survey, is set out in **Table 11C-3**. VSAAs are illustrated in **Figure 11.3**.

Table 11C-3 LANDMAP Visual and Sensory Aspect Areas: Baseline Description

VSAA	Description (Q3)
<p>Caldicot Level (NWPRTVS037) – Host</p>	<p><i>“Caldicot Level is an extensive area landscape below 10 m AOD, large in scale. It is primarily pastoral land with limited arable. The pattern of linear rectangular fields to the east is distinctive, some enclosed by cut or outgrown hedges or lined with willows but all bounded by ditches. A more sinuous pattern prevails to the west of Whitson Common around Goldcliff. The most distinctive feature is the drainage network including undulating fields, field ditches and reens of various sizes. These have strong reed and other marginal vegetation which contributes to the lowland character of the area. There are some other uses such as recreational facilities including a permanent caravan park. Cypress has been used to screen detractors including agricultural buildings. Settlement pattern tends to be focused on a few minor roads which pass through the area. There is evidence of fly-tipping particularly to the north. Between the clustered settlements there is a significant amount of linear development, mostly dwellings associated with small holdings such as at Whitson Common. There are some fine farmhouses and buildings associated with the older villages including small churches which act as minor landmarks. The dispersed linear pattern of farms set back from the road at Whitson are notable. A significant number of power lines with pylons converge on the power station at Uskmouth. These dominate the landscape on the western fringes. There are relatively few rights of way and accesses to the flood embankment by the Severn Estuary making the area a relatively inaccessible landscape. In places, the area is open allowing extensive views although it is not possible to see the adjacent Severn Estuary because of the flood embankment. This 5 m high embankment is mainly covered in maintained grass although in places rip rap with a concrete capping (anti erosion barrier) is used to strengthen the outward facing slope. The top of the embankment is accessible for walkers in places with stiles to control access. The embankment by its nature is exposed and allows superb views across the Severn estuary and along to detractors such as the Uskmouth power station. At times of high tide the power and scale of the Severn Estuary can feel threatening”.</i></p>
<p>Western Coastal Grasslands (MNMTHVS053) – Host</p>	<p><i>“Bounded to the west by Cold Harbour Pill and Sudbrook to the east, this landscape is open and exposed with long views across the Severn Estuary, whilst overlooked by the Second Severn Crossing and the settlements of Magor and Caldicot to the north. Forming part of the Caldicot Levels it is a historic landscape of reclaimed pasture, with a variety of regular and irregular field patterns, and drainage channels. Caldicot Moor, Banecroft, Whitewall, and Undy Common are reflective of the enclosure of this common land, a unique landscape of neat and clean appearance, these fields of mainly improved grassland have retained their integrity, although Caldicot Moor has been degraded somewhat by the Second Severn Crossing and the intrusive lines of pylons. In contrast, the irregular piecemeal enclosures of the land immediately south of Undy through to Magor Pill have a mixture of mature overgrown treelines and low intensively trimmed hedges, creating a wilder more unkempt appearance”.</i></p>
<p>Llanwern (NWPRTVS044) – Host</p>	<p><i>“Former Llanwern steelworks located on the levels below 10 m AOD. Former vast plant is in the process of being dismantled. Some large structures remain, and pylons carry power lines to the area. The structures are screened from the north to an extent by a tree belt which consists of willows and poplars some of which are aging and are in poor condition. New development is also occurring to the east on greenfield sites. A warehouse with red banding on each elevation is particularly prominent and is highly visible from the M4 to the north. Change detection 2014: Major re-development taking place in the western part - named 'Glan Llyn”.</i></p>
<p>Estuary Mudflats (NWPRTVS007)</p>	<p><i>“An extensive area of intertidal mud bordering the Severn estuary accommodating the second highest tidal range in the world. The area is very exposed, covered with water at high tide and forms part of the raw seascape. Relict structures exist such as posts probably relating to a former fishing use. Superb views are possible across the Severn estuary”.</i></p>

VSAA	Description (Q3)
Severn Estuary (NWPRTVS008)	<p><i>“The Severn estuary is a large dynamic tidal waterbody which is at a vast scale. It forms a wild seascape which influence is the character of much of Newport. Superb views are possible across to the English coast. It is a significant attraction for people to fish or to walk alongside”.</i></p>
Western Saltmarsh & Mudbanks (MNMTHVS057)	<p><i>“Stretching from Sudbrook in the east to Cold Harbour Pill in the west, this open linear strip of saltmarsh allows long views across the Severn Estuary. Dissected by the Second Severn Crossing there are dramatic views of the bridge as it rises out of the surrounding flat levels. It is a diverse species-rich coastal habitat of saltmarsh, sandbanks, mudflats, shingles and boulders, isolated and remote in character to the west, though disrupted to the east by the M4 and contained by the remnant earthen sea defence wall and footpath forming the boundary with the Caldicot Levels”.</i></p>
Bedwin Sands (MNMTHVS095)	<p><i>“It is an open and windy seascape, with long views to the English coastline interrupted by the Severn Bridge and Second Severn Crossing. The strong tidal action results in a visually diverse landscape from the exposed mudflats, sandbanks and ragged rock outcrops to the high tidal fast flowing estuarine waters typical of the Severn. Large-scale industrial development visually intrudes upon this open and exposed landscape in particular at; Sudbrook and Newpark on the Welsh side and the Severn Reach along the English Coastline. In places the open coastal character is retained, where bordering the Caldicot Levels, the flat reclaimed farmed pastures merge with the estuarine edge”.</i></p>

2.4 Historic Landscape Aspect Areas (HLAAs)

- 2.4.1 The filtering process described in **Appendix 11B**, identified 15 HLAAs within the 5km LVIA Study Area. However, field observations and the Viewpoint Analysis presented in **Appendix 11J** established that no significant visual effects are likely to occur beyond a distance of 1km. Consequently, the landscape assessment has been re-scoped to include only those HLAAs which lie within or partially within a 1km buffer of the proposed solar farm and therefore considers 6 HLAAs.
- 2.4.2 A description of the 6 HLAAs scoped into the assessment, as informed by Question 4 of the LANDMAP Survey, is set out in **Table 11C-4**.

Table 11C-4 LANDMAP Historic Landscape Aspect Areas: Baseline Description

HLAA	Description (Q4)
<p>Whitson (NWPRTL019) – Host</p>	<p><i>“The Gwent Levels have been designated an Outstanding Historic Landscape (HLW(Gt)2), which represents the largest and most significant example in Wales of a “hand-crafted” landscape. The Levels are entirely the work of humans, having been recurrently inundated and reclaimed from the sea from the Roman period onwards. The area has distinctive patterns of settlement, enclosure and drainage systems belonging to successive periods of use, and a proven and possibly vast potential for extensive, well-preserved, buried, waterlogged, archaeological and palaeoenvironmental deposits surviving from earlier landscapes (Cadw and ICOMOS 1998) A regular landscape of drained fields bordered to the north by Llanwern Steelworks (NHL022) and west by the Monks Ditch and East by Windmill Reen and Cock Street Reen. Broadly medieval in date this landscape can be sub-divided into four areas, Grangefield, Whitson, Porton and Broad Mead. Grangefield to the north of the aspect area was a farm owned by the monks of Tintern Abbey. The area to the east, known as Black Moors, was enclosed and drained by them, probably in the 13th or 14th century. The earthworks of the grange survive beside Grangefield, and are scheduled. Whitson was planned out during the high medieval period possibly by the monks at Goldcliff. Initially, a series of long narrow strips were laid out, surrounded by a fen-bank. These strips were subsequently extended a number of times. The principal element is a linear settlement along a street common, and very long narrow fields laid out longitudinally to the east. The main village street runs down the centre of the former common, leading to the farms, which originally all lay on the common’s edge, being set back from the present road. Monksditch runs down the west side of the former common. A number of boundaries have been lost but some grips are well-preserved and the pattern of long narrow fields survives in essence. Porton, held by Goldcliff Priory and Tintern Abbey, appears to have been laid out in a single episode; the landscape pattern consists of rectangular fields set within a planned grid of roads. The axial east-west road may be an enclosed street common. The two north-south roads lack any waste and survive as un-metalled green lanes. The hamlet of Porton lies adjacent to Whitson church, and includes a fine collection of 17th to 18th century buildings. The sea wall clearly cuts across the grain of this landscape, leading to the creation of a number of triangular shaped fields. Elver Pill (formerly Earls) Reen lies to the east; though documented from the 16th century, it is certainly much older. The sea wall has stone rubble facing and a wave return wall. Some well-preserved grips remain especially to the south. Broadmead to the southeast of the aspect area is first recorded in 1422. It was a large tract of meadow, divided into strips which were not defined by ditches. Piecemeal enclosure probably started by the 16th century on the eastern side, but it remained largely unenclosed until a Parliamentary Act of 1858; the present pattern of roads and fields for the most part date to that period. For the Levels, this is a very rare single period landscape, and the most extensive parliamentary enclosure of former open fields. As such it is one of the few landscapes for which an absolute date of origin can be attributed. A major characteristic is the very limited range of landscape features, notably the predominance of large rectangular fields and lack of settlement (Rippon 1996)”.</i></p>
<p>Redwick (NWPRTL018) – Host</p>	<p><i>“The Gwent Levels have been designated an Outstanding Historic Landscape (HLW(Gt)2), which represents the largest and most significant example in Wales of a “hand-crafted” landscape. The Levels are entirely the work of humans, having been recurrently inundated and reclaimed from the sea from the Roman period onwards. The area has distinctive patterns of settlement, enclosure and drainage systems belonging to successive periods of use, and a proven and possibly vast potential for extensive, well-preserved, buried, waterlogged, archaeological and palaeoenvironmental deposits surviving from earlier landscapes (Cadw and ICOMOS 1998) Redwick is a clearly defined reclaimed wetland landscape of irregular fields bordered to the east by the Cold Harbour Reen and west by the Windmill Reen and centred on the medieval village of Redwick. It is the largest nucleated village on the Levels, focused around a nodal point in the road network. There are a wide variety of buildings including the medieval church, and some fine post-medieval cottages and farmhouses. There are several working farms. Earthworks to the south of the village relate to abandoned buildings and are of great archaeological potential. Several very fine orchards survive, and a cider press is</i></p>

HLAA	Description (Q4)
	<p><i>preserved in a bus shelter beside the church. Several small areas of roadside common survive, one with a plaque commemorating the enclosure act of 1850. A plaque on the wall of the church commemorates the great flood of 1606 when many thousands of people and animals died; other examples can be seen at Goldcliff and Peterstone churches. The village probably originated in the late 11th century, and is the best-preserved medieval nucleated village on the Levels, and remains generally in very good condition with few modern buildings. There are a diverse range of pleasant buildings and other landscape features including orchards, giving it a very high coherence and group value. With several working farms it retains a high degree of integrity as a working agricultural village. The irregular fieldscape surrounding the village results from gradual enclosure and reclamation, probably between the 11th to the 14th centuries. The enclosure of street commons in the 19th century marked an important period of alteration. A range of Commissioners of Sewers notices relating to the drainage system are on display built into the bus shelter near the church, along with some stones that were placed along reens to demarcate the stretches which individual tenants were responsible for maintaining. Very important prehistoric, Roman and medieval sites are known in the intertidal zone south of the 16th century sea wall; these include Mesolithic human footprints, Bronze Age roundhouses, several unlooped shield pattern palstave axes, cattle footprints and fish-traps; Roman field systems and metal working areas and medieval ecclesiastical field systems; such evidence is likely to continue inland under later alluvium”.</i></p>
<p>Caldicot Level (MNMTHHL001 – Host</p>	<p><i>“Site Location This Aspect Area forms part of the extensive alluvial wetlands and inter-tidal mudflats known as the Gwent Levels, extending along the north side of the Severn Estuary between Chepstow in the east and Cardiff in the west. Caldicot Level is one of two major components of this important estuarine landscape, the other being Wentlooge Level lying to the W of Newport. The study area comprises that part of the Caldicot Level extending east from the political boundary with Newport County Borough Council to the promontory of Sudbrook. The Character Area continues into the area of Newport County Borough Council. Most of the area lies below the 10m contour line representing the interface between alluvium and solid geology and to the south the area is demarcated by the sea wall dividing the land from the Severn Estuary. Evidence of human activity found outside the sea wall and thus technically not within the Aspect Area includes a group of three Palaeolithic hand-axes and a blade representing the earliest evidence for human activity in the current county, which was found during construction of the Second Severn Crossing, and a considerable amount of Roman, medieval and post-medieval pottery found off Magor Pill. The wreck of a 13th century clinker-built cargo ship was also recovered in this area. Historical Overview The Gwent Levels have formed over the last 10000 years as rising post-glacial sea levels laid down sediment on the banks of the Severn. Humans have exploited this estuarine environment more or less intensively throughout the post-glacial period in response to fluctuations in the heights and range of tides; however, significant attempts to modify the landscape were not undertaken until the Roman period, when the construction of sea walls and drainage ditches began to transform the character of the Levels, a process that continued, following a period of extensive post-Roman flooding, into the medieval and post-medieval periods. Sea level rose rapidly after c.9700BP depositing estuarine silty clays within a mudflat / saltmarsh environment. Footprints dating from the Mesolithic period preserved beneath layers of peat to the S of the sea wall at Magor Pill provide direct evidence of a human presence on the Levels at this time. Deep alluvium has so far prevented the discovery of any Palaeolithic or Mesolithic material in the Aspect Area but the Mesolithic campsite discovered at Goldcliffe has revealed much that is of relevance. The site occupied a wooded island surrounded by saltmarsh and the inhabitants appeared to have hunted red deer, roe deer and pig (Barton & Bell, 2000). Sea level rise slowed towards the end of the Mesolithic and reed swamp established itself over the former saltmarsh, followed by woodland. At the beginning of the Neolithic, the area seems to have been dominated by mixed carr woodland (Peterson & Pollard, 2004, 68) and subsequently by open reed swamps and raised bogs, offering a wide range of resources such as fish and wildfowl, possibly exploited from camps located on the fen-edge (Rippon, 1996, 20). Evidence of significant Bronze Age settlement has been revealed at various sites on desiccated raised</i></p>

peat beds on the intertidal foreshore, including circular structures at Chapelump and Collister Pill. The late Bronze Age and Iron Age witnessed gradual inundation of the Level approximately contemporary with flooding of the Somerset Levels, with mudflats along the coast, saltmarsh further inland and reed swamp adjacent to the fen-edge (Rippon, 1996, 22). It was not until the Roman period that efforts to drain the Levels were undertaken. The legionaries based at Caerleon enclosed the Levels with a sea wall and installed a system of drainage ditches, probably using the rich meadow land to graze cavalry horses and livestock (Rippon, 1995; Brewer, 2004, 207). Roman sites are known principally from the immediate fen-edge and along the present seaward edge of the Level (Evans, 2001, 69). One of three main concentrations of Roman activity in the latter area is the extensive and complex site at Magor Pill (Allen & Rippon, 1994) and it has been suggested that a port existed here, later referred to in medieval documents as Abergwaitha. Recent investigations have identified a late Iron Age / Roman land surface buried some 1.5m below the present ground surface in the area close to Magor Waste Water Treatment Works. This surface has been cut by ditches, presumably to form fields used for grazing, while also creating a drainage system that supplemented the natural drainage. A rise in sea level appears to have occurred in the late Roman period and the sea defences failed to prevent Caldicot and parts of Wentlooge Levels reverting to saltmarsh. Consequently, the Roman ground surface was buried beneath deep alluvium. The medieval landscape emerged as a result of gradual enclosure and reclamation, probably between the 11th and 14th centuries, much of which can be credited to works carried out by the monks of Tintern, Llantarnam and Goldcliffe abbeys. The area around modern Lower Grange Farm to the S of Magor constitutes a rare example of a documented monastic grange with well-defined boundaries. This landscape dates primarily to the mid-13th century, when Tintern Abbey was granted permission to enclose and drain it and is characterised by large rectilinear fields, which have retained their historic character despite being recently enlarged. The port of Abergwaitha, recorded in 1245, which was probably located on the coast at Magor Pill, may have been attached to Lower Grange (Rippon, 1996, 94). Elsewhere, the Level appears to have been used as common grazing or to have been incorporated into the open fields of the Anglo-Norman settlements of Undy and Caldicot. The area to the south of Caldicot contains some of the earliest documented meadows on the Gwent Levels, dating to the early 13th century. The enclosure of these open fields and small commons started around the 16th century and was completed in the 19th century (Rippon, 1995). Contemporary records indicate that sea level rose again towards the end of the 13th century. A sea wall was constructed, probably on a similar line to the current one, which cut across field systems and required modification to the drainage system, including the construction of wider and deeper 'reens' (the main drainage ditches) and the use of 'gouts' (gates) to control and release the drained water into the sea. This later medieval drainage system remains in use and is the principal reason for the area to be included in the Register of Landscapes of Outstanding Historic Importance. The sea wall failed in AD 1661 and much of the Level was flooded, resulting in loss of life. The structure was repaired and strengthened and commissioners installed to maintain it and co-ordinate work on the drainage system. Post-medieval and modern settlement is sparse on Caldicot Level, consisting of isolated farms and small linear settlements principally built on former common land. Topography of Aspect Area Caldicot Level is an extensive low-lying area of estuarine alluvium which has been recurrently flooded and reclaimed from the sea. Its present character is entirely due to human effort since the Roman period and this is reflected in its distinctive patterns of settlement, enclosure and drainage. The Level is rich in buried archaeology and palaeoenvironmental deposits, both in the intertidal zone and inland of the sea wall. Justification for Area Boundaries This is one of two major landscape components of the Gwent Levels and as such forms part of the most significant example in Wales of a 'hand-crafted' landscape resulting from gradual enclosure and reclamation since the Roman period. The Area Boundary reflects the physical extent of the Level except where it is bisected by the political boundary with Newport County Borough Council to the west. (For full text see the technical report)".

HLAA	Description (Q4)
East Usk and Llanwern Industrial (NWPRTL022) – Host	<p><i>“This was a significant industrial landscape during the 20th century, following the eastern bank of the River Usk from the coast in the south, northwards almost to the M4 corridor; eastward extending from the river to Greenmoor Arch, this landscape has been imposed upon a large swathe of former reclaimed agricultural wetland. The formerly industrial character of this aspect area has largely been destroyed. Significant clearance works have been undertaken to the Llanwern Steelworks and residential development has started in the western part of the area. During the late 18th century Newport began to establish itself as a major trading community; such a change was facilitated by the construction of the Monmouthshire Canal in 1796 and associated railway links, finished in 1850. Following the construction of the Monmouthshire Canal in 1796, and its southern extension in 1806, there was a rapid development along the western bank of the River Usk to the south of Newport town centre. The establishment of the East Usk Railway and Docks Company (1865) acted as a catalyst for the development of the eastern bank of the River Usk. Wharves of significant size were built, which were serviced by a network of tramroads and later railroads; two surviving examples in the early 21st century include Great Western Wharf west of Spytty Pill, possibly the largest structure of its time on the east bank of the River Usk, and Clarence Wharf another impressive construction located immediately south of Newport Bridge. Industry was encouraged, which saw the establishment of brickworks and sawmills to the north of Newport Bridge and further sawmills, chemical works and iron/steelworks to the south extending to the coast. The railways were intended to join a connecting line from the Western Valleys railways at Basseleg on the main Great Western Railway (GWR) line. It was envisaged that the eastern bank of the river would become part of a major dock, in competition with Newport Town Dock and the many wharves established on the opposing western bank of the River Usk. However, it was not until the East Usk Railway and Docks Company was finally incorporated in 1885 that the former tramroads, coal stages and wharves, connecting to the main line, were replaced by the Nettlefold's Branch. It was at this time that the East Usk Railway and Docks Company was taken over by the then expanding GWR (Barrie 1994, 63-4). The railway was eventually extended south to the coast connecting the Orb Ironworks, British Mannesmen Tube works, the Union Dry Docks (later Channel Dry Docks) and the saltings at Windbound Cottage on Thieves Pill; the latter being replaced by a power station in the 20th century. Competition from the new South Docks built in 1907 signalled the decline in industrial activity along the eastern bank of the River Usk. Development eastwards onto the Caldicot Level was relatively late in comparison to the docklands of the eastern bank of the River Usk. The Spencer Steelworks was established by the government in 1958 and opened in 1962. Today the Llanwern Steelworks extends for over five kilometres on what was once a reclaimed landscape of regular fields. Sir Percy Thomas and Sons, architects of the Dupont Nylon Factory at Pontypool, were employed to give some architectural coherence to the new buildings. Steel cladding in contrasting colours was used for the various components and large belts of both deciduous and evergreen trees were used to reduce the steelworks visual impact on the local landscape. To the extreme east of the steelworks is the Gwent Euro Park, a modern industrial estate of distribution warehouses. During the construction of the park significant archaeological discoveries were made, including an Iron Age settlement, Roman wharf and coastal trading vessel. Three Iron Age rectangular buildings with rounded corners were discovered during excavations carried out in advance of the construction of a warehouse. Each structure was built with walling marked by double or triple rows of stakes and enclosing an area of brushwood flooring. Ceramics recovered suggested a middle Iron Age date for the use of the settlement. The buildings are closely comparable to those found on the peat shelf at Goldcliff (NHL017), and presumably reflect the exploitation of the intertidal peat shelf in summer for pasture; cattle hoofprints were found around them. The discovery of a Roman coastal vessel is extraordinary; the boat was built of oak, seemingly deliberately placed in a palaeochannel next to a stone jetty of rough slabs of sandstone, which continued to be maintained afterwards, possibly to stabilise the river edge. The boat lay on a north-south orientation, with its incomplete north end resting on a spread of dumped stone. The boat was probably originally double-ended; its original length has been estimated to 11.4m. The construction of the Gwent Euro Park is a continuation of a distinctive pattern of</i></p>

HLAA	Description (Q4)
	<p>settlement, enclosure and drainage, which has manipulated the Caldicot Level since the prehistoric period. The Gwent Levels have a proven and possibly vast potential for extensive, well-preserved, buried, waterlogged, archaeological and palaeoenvironmental deposits surviving from these earlier landscapes; for this reason the Levels will continue to yield remarkable archaeological finds”.</p>
<p>Nash/Goldcliff Coastal Zone (NWPRTL017)</p>	<p>“The Gwent Levels have been designated an Outstanding Historic Landscape (HLW(Gt)2), which represents the largest and most significant example in Wales of a "hand-crafted" landscape. The Levels are entirely the work of humans, having been recurrently inundated and reclaimed from the sea from the Roman period onwards. The area has distinctive patterns of settlement, enclosure and drainage systems belonging to successive periods of use, and a proven and possibly vast potential for extensive, well-preserved, buried, waterlogged, archaeological and palaeoenvironmental deposits surviving from earlier landscapes (Cadw and ICOMOS 1998) The Nash/Goldcliff coastal zone is an irregular fieldscape of medieval origin bounded to the west by the industrialised east bank of the River Usk and Llanwern steelworks to the north. Monk's Ditch forms the eastern boundary where it represents the interface with the post-medieval Whitson fieldscape. The higher coastal parts of this landscape were certainly reclaimed by the late 11th/early 12th centuries when Goldcliff and Nash were granted to Goldcliff Priory. Lower-lying areas inland were enclosed and drained by the 13th/14th centuries. Subsequent changes in landuse, population increase leading to the proliferation of scattered farms and cottages, and the enclosure of commons and roadside waste, have meant that this has been a constantly modified landscape, but one that in essence is high medieval in date. An abundance of prehistoric intertidal archaeology is known off Nash and Goldcliff, and this is known to extend inland under the later alluvium (Lewis 2005). The prehistoric period is represented by cattle hoofprints, Bronze Age roundhouses and post-settings, flint, bone and discreet pottery scatters (Allen 1996b; Bell et al 2000) More recent work has identified several prehistoric timber structures thought to be the remains of fish traps or temporary shelters (Tuck 2004c, 10-11). Evidence of Roman occupation was found when the Nash sludge pits were dug, during construction of the Uskmouth Power Station and around Goldcliff Point. A Roman inscription, the "Goldcliff Stone", records the work of legionaries on a linear earthwork, presumably a sea wall. The Roman presence is also attested by coins (Boon 1980) and pottery, found within an apparently deliberately drained and protected landscape, thought to have provided pasture for cavalry horses. There are strong associations with the Priory on Goldcliff Point, of which Monksditch is the most obvious aspect. Though still in use, this is of great historical significance. The areas of landscape north of Goldcliff Point, and around Chapel Lane, Clifton Common and Saltmarsh are particularly well preserved. Several areas have suffered damage from agricultural improvement, but in other areas, preservation is excellent. A wide range of documentary material exists for this area, including a series of charters for Goldcliff Priory, and 13th century accounts of how the drainage system worked. Locally, there are strong cultural associations with the Priory; farmers widely attribute the reclamation of this area to the monks. Overall this landscape has a reasonable integrity (though many of the roads are metalled and there are many modern cottages), and a reasonable coherence (being predominantly a working agricultural landscape). This is a very diverse landscape, reflecting its long history of formation, with an irregular field-boundary pattern and sinuous lanes. Much of the once ample roadside waste has been enclosed, though traces survive (eg Saltmarsh Lane). North of Goldcliff Point, Mireland Pill forms one side of a particularly fine green lane, there were several linear street commons; most have been enclosed (eg Broadstreet), though the Clifton example survives. The settlement pattern was mainly dispersed with farms and cottages scattered throughout the landscape. Several earthwork complexes represent the sites of abandoned settlements, including the scheduled moated site by Chapel Lane in Goldcliff. Nash and Goldcliff villages now largely consist of modern buildings, though there are a number of fine old farmhouses elsewhere (Rippon 1996)”.</p>

HLAA	Description (Q4)
Peterstone and the Portland Grounds (NWPRTL047)	<p><i>“The intertidal foreshore of the Newport Unitary Authority extends from Rumney Great Wharf in the west to Portland Grounds. Predominately sand and some discrete areas of shingle with overlying alluvial clays concentrated at the mouth of the River Usk and the lesser water courses discharging in the estuary. The foreshore is incredibly rich in intertidal archaeological features from almost all periods. Mesolithic forests, hunter gatherer settlements, human footprints and flint tool scatters have been identified eroded out of the foreshore at Goldcliff along with Neolithic Auroch skeletons. Bronze Age roundhouses and post-settings, cattle hoofprints, flint and bone tools and discrete pottery scatters and Iron Age fish-traps have all been identified from Rumney Great Wharf to Magor Pill (Allen 1996b; Bell et al 2000; Tuck 2004c, 10-11; Lewis 2005). The Romans drained vast areas of the Wentlooge and Caldicot Levels and traces of their drainage network of reens and dykes have been found eroding out of the foreshore at Rumney Great Wharf, Peterstone Great Wharf, Goldcliff and Redwick. This Roman landscape, exposed during low tide, is thought to have provided pasture for cavalry horses among other pastoral agricultural activities. Industry, in the form of metal working areas, is known on the foreshore during this period. The foreshore was allowed to encroach during the following period and a new drainage system was then laid out in the medieval period, most areas at the instigation of the ecclesiastical centres (see NHL017-021). The post-medieval period is represented by the presence of numerous wreck sites, fishing traps and a retreating foreshore. The latter has been addressed recently with the rock armouring of the exposed coastline from Rumney Great Wharf to Redwick and in several places polder enclosures have been erected to stabilise and encourage the re-growth of the salt marsh thus protecting the buried archaeology (Tuck 2004c; Lewis 2005)”.</i></p>

2.5 Cultural Landscape Services Aspect Areas (CLSAA's)

- 2.5.1 The filtering process described in **Appendix 11B**, identified 7 CLSAA's within the 5km LVIA study area. However, the potential for significant effects to these LHAA's is only likely to arise from direct effects where works or operations associated with the Proposed Development take place. As a consequence, the landscape assessment has been re-scoped to include only those CLSAA's which lie within or partially within the PEIR Assessment Boundary of the proposed solar farm (also referred to as host aspect areas) and therefore considers 3 CLSAA's.
- 2.5.2 No description of the 3 CLSAA's scoped into the assessment is provided in the LANDMAP Survey as confirmed in **Table 11C-5**.

Table 11C-5 LANDMAP Cultural Landscape Services Aspect Areas: Baseline Description

CLSAA	Description (Q24)
Caldicot Level (NWPRTCLS051) - Host	No description provided.
Western Coastal Grasslands (MNMTHCLS082) – Host	No description provided.
Llanwern (NWPRTCLS061) – Host	No description provided.

3.0 Sensitivity Assessments

3.1 Overview

- 3.1.1 The landscape sensitivity of the defined Aspect Areas to the Proposed Development is presented in **Sections 3.2 to 3.6**, derived in accordance with the methodology set out in **Appendix 11A**. Landscape sensitivity is described as 'high', 'medium', 'low', and 'negligible' which is assessed by taking into account the landscape value and landscape susceptibility to change, which may vary in response to both the type of development proposed, specific characteristics of the receptor and consideration of Aspect specific criteria.
- 3.1.2 The predicted magnitude of landscape change and the consequent level of effect and its significance is set out in **Appendices 11D to 11H** for the Geological Landscapes, Landscape Habitats, Visual and Sensory, Historic Landscape and Cultural Landscape Services Aspect Areas, respectively.

3.2 Geological Landscapes Aspect Areas (GLAAs)

- 3.2.1 The landscape value and susceptibility of the GLAAs is considered in relation to the following criteria:
- **Landscape Value:**
 - Q33 of the GLAA LANDMAP Survey Sheets.
 - **Landscape Susceptibility:**
 - *Scale:* Q8 of the VSAA LANDMAP Survey Sheet and OS/ aerial assessment. Low susceptibility would represent larger scale landscapes and landform which may be more able to accommodate large scale solar farms, characteristics that are less susceptible to solar farms. High susceptibility would represent smaller scale well defined landforms which may become dominated or are less able to accommodate solar farms, characteristics that are more susceptible to solar farms.

- *Landform and Topography*: Q4 & Q5 of the GLAA and Q4 of VSAA LANDMAP Survey Sheet Survey Sheets and OS map/ aerial assessment. Low susceptibility would represent a simple upland plateau, gently rolling or flat landscapes with large scale simple and uniform land cover, where solar farms may be more easily accommodated. High susceptibility would represent complex landforms with well-defined changes in level and diverse land cover, landscapes that solar farms may be less easily accommodated.
- *Skyline*: OS map/ aerial assessment. Low susceptibility would represent broad simple skylines lacking in distinctive or 'landmark' topography, characteristics that are less susceptible to solar farms. High susceptibility would represent skylines which are an important and noticeable component in the landscape with 'landmark' topography, characteristics that are more susceptible to wind farms.
- *Surrounding Context*: Q2 of the GLAA LANDMAP Survey Sheet if special or functional links are present and OS map/ aerial assessment. Low susceptibility would represent self-contained landscapes with limited relationship with adjacent areas, characteristics that are less susceptible to solar farms. High susceptibility would represent landscapes that are closely connected to the adjacent / surrounding areas in terms of similar character or visual backdrop, characteristics that are more susceptible to solar farms.

Sensitivity Assessment

3.2.2 The landscape sensitivity assessment for the two GLAAs scoped into the LVIA is set out in **Table 11C-6**.

Table 11C-6 Assessment of Sensitivity: Geological Landscapes Aspect Areas (GLAAs)

Aspect Area reference		Landscape Value	Landscape Susceptibility			Overall Landscape Sensitivity	
			Overall Evaluation (Q33)	Scale	Landform and Topography		Skyline
Caldicot Level – Goldcliff (NWPRTGL031)	High	Medium Taken from VSAA	Low Coastal plain Former estuarine marsh Reclaimed and drained but not heavily industrialised or urbanised Patchwork Separated from estuary by seawall 10m above sea level Coastal flat Levels	Low Taken from VSAA	High Similar to adj GLAA, part of former coastal flats and Gwent Levels	Medium	Medium
Caldicot Moor (MNMTHGL086)	Medium	Medium Taken from VSAA	Low Coastal flat Reclaimed former saltmarsh	Low Taken from VSAA	High part of former saltmarsh and	Medium	Medium

Aspect Area reference	Landscape Value		Landscape Susceptibility			Overall Landscape Sensitivity
	Overall Evaluation (Q33)	Scale	Landform and Topography	Skyline	Surrounding Context	
- <i>Host</i>		Separated from estuary by seawall 5m above sea level Reclaimed saltmarsh/mudflat Levels		partially Gwent Levels		

3.3 Landscape Habitats Aspects Areas (LHAAs)

Defining value and susceptibility

3.3.1 The landscape value and susceptibility of the LHAAs is considered in relation to the following criteria:

- **Landscape Value:**
 - Q45 of the LANDMAP Survey Sheet.
- **Landscape Susceptibility:**
 - *Land Cover:* Q5 of the LHAA and VSAA LANDMAP Survey Sheets and OS/ aerial assessment. Low susceptibility would represent large scale simple and homogenous land cover including moorland, grasslands, and large forestry plantations, where the simplicity of the land cover could accommodate solar farms. High susceptibility would represent complex and diverse land cover including a diversity of arable fields, grassland, trees / hedges / woodland, open water of a small scale that solar farms may dominate.
 - *Landscape Management:* Q19 and Q23 of the LHAA LANDMAP Survey Sheet Survey Sheet and OS map/ aerial assessment. Low susceptibility would represent landscapes where habitat and species value is being undermined by current land management activities, characteristics that are less susceptible to solar farms. High susceptibility would represent landscapes where habitat and species value is being enhanced by current land management activities, characteristics that are more susceptible to solar farms.
 - *Surrounding Habitat Connectivity:* Q2 of the LHAA LANDMAP Survey Sheet and OS map/ aerial assessment. Low susceptibility would represent self-contained landscapes with no special or functional link with adjacent area/s, characteristics that are less susceptible to solar farms. High susceptibility would represent landscapes that are closely connected to the adjacent / surrounding areas in terms of similar

landscape habitat character, characteristics that are more susceptible to solar farms.

Sensitivity Assessment

- 3.3.2 The landscape sensitivity assessment for the 3 LHAs scoped into the LVIA is set out in **Table 11C-7**.

Table 11C-7 Assessment of Sensitivity: Landscape Habitats Aspect Areas (LHAAs)

Aspect Area reference	Landscape Value	Landscape Susceptibility			Overall Landscape Sensitivity	
		Overall Evaluation (Q45)	Land Cover	Landscape Management		Surrounding Habitat Connectivity
NWPRTLH054 – Host	High (LANDMAP evaluation – Outstanding)	Low Medium from VSAA (Field Pattern/ Mosaic), 85 Imp Grass, 9 Arable 2 Buildings 1 not accessed	Medium Cultivation Stock grazing Mowing Improve reens	High Similar to adj LHAA, part of Gwent Levels	Medium	Medium
NWPRTLH033 – Host	High (LANDMAP evaluation – Outstanding)	Low Medium from VSAA (Field Pattern/ Mosaic), 64 Imp Grass, 28 Arable	Medium Cultivation Stock grazing Mowing Improve reens	High Similar to adj LHAA, part of Gwent Levels	Medium	Medium

Aspect Area reference	Landscape Value	Landscape Susceptibility			Overall Landscape Sensitivity	
		Overall Evaluation (Q45)	Land Cover	Landscape Management		Surrounding Habitat Connectivity
		3 Buildings				
MNMTHLH088 – Host	High (LANDMAP evaluation – Outstanding)	Low Medium from VSAA (Open Land?), 1 semi-natural broad wood 1 planted con wood 71 Imp Grass, 16 Arable 3 Buildings	Medium Stock grazing Draining Encourage farmers to enter Agri-env schemes	High Similar to adj LHAA, partially Gwent Levels but part of broader levels	Medium	Medium

3.4 Visual and Sensory Aspect Areas (VSAAs)

Defining value and susceptibility

3.4.1 The landscape value and susceptibility of the VSAAs is considered in relation to the following criteria:

- **Landscape Value:**
 - Q26 and Q50 of the VSAA LANDMAP Survey Sheet.
- **Landscape Susceptibility:**
 - *Scale:* Q8 of the VSAA LANDMAP Survey Sheet and OS/ aerial assessment. Low susceptibility would represent larger scale landscapes and landform which may be more able to accommodate large scale solar farms, characteristics that are less susceptible to solar farms. High susceptibility would represent smaller scale well defined landforms which may become dominated or are less able to accommodate solar farms, characteristics that are more susceptible to solar farms.
 - *Landform, Topography and Land cover:* Q4 & Q8 of the VSAA LANDMAP Survey Sheet Survey Sheet and OS map/ aerial assessment. Low susceptibility would represent a simple upland plateau, gently rolling or flat landscapes with large scale simple and uniform land cover, where solar farms may be more easily accommodated. High susceptibility would represent complex landforms with well-defined changes in level and diverse land cover, landscapes that solar farms may be less easily accommodated.
 - *Landscape Pattern:* Q5 & Q16 of the VSAA LANDMAP Survey Sheet and OS/ aerial assessment. Low susceptibility would represent large scale regular or rectilinear field patterns which may complement the modern aesthetic of solar farms. High susceptibility would represent irregular small-scale patchwork or medieval field patterns where solar farms may overwhelm the scale and landscape pattern, characteristics that are more susceptible to solar farms.

- *Built Environment*: Q3, Q6, Q18, Q20 & Q21 of the VSAA LANDMAP Survey Sheet and OS map/ aerial assessment. Low susceptibility would represent large scale industrial, infrastructure and mineral extraction land uses including the presence of wind turbines, transport, overhead lines or communications infrastructure. Landscapes with major infrastructure, large concentrations of development and an overarching modern urban/townscape character, characteristics that are less susceptible to solar farms. High susceptibility would represent rural / traditional forms of development including parks and gardens and monuments enhancing the overall landscape sensitivity and value with an absence of man-made influences, characteristics that are more susceptible to solar farms.
- *Scenic Quality*: Q22, Q23, Q24 of the VSAA LANDMAP Survey Sheet and OS map/ aerial assessment. Low susceptibility would represent an area of despoiled landscape containing visually detracting features/elements. High susceptibility considered to be attractive containing landscape features/elements that make a positive contribution to character, sense of place and beauty.
- *Remoteness and Tranquillity*: Q3, Q18, Q24 & Q56 of the VSAA LANDMAP Survey Sheet and OS map/ aerial assessment. Low susceptibility would represent an area that feels closer to people and human activities (conversely a remote area not valued for wildness or tranquillity would have a lower number of visual receptors), characteristics that are less susceptible to solar farms. High susceptibility would represent an area that feels remote from people and human activities (conversely, landscapes that are settled / built up would have a higher number of visual receptors), characteristics that are more susceptible to solar farms.
- *Openness and Enclosure*: Q7 & Q9 of the LANDMAP Survey Sheet and OS map/ aerial assessment. Low susceptibility would represent enclosed landscape with limited opportunities for long range views with unmanaged, high field boundaries offering containment, characteristics

that are less susceptible to solar farms. High susceptibility would represent open landscapes with opportunities for long range views with low field boundaries such as walls/fences or clipped/managed low hedges, characteristics that are more susceptible to solar farms.

- *Skyline*: OS map/ aerial assessment. Low susceptibility would represent broad simple skylines lacking in distinctive or 'landmark' topography, characteristics that are less susceptible to solar farms. High susceptibility would represent skylines which are an important and noticeable component in the landscape with 'landmark' topography, characteristics that are more susceptible to solar farms.
- *Surrounding Context*: Q2 of the VSAA LANDMAP Survey Sheet if special or functional links are present and OS map/ aerial assessment. Low susceptibility would represent self-contained landscapes with limited relationship with adjacent areas, characteristics that are less susceptible to solar farms. High susceptibility would represent landscapes that are closely connected to the adjacent / surrounding areas in terms of similar character or visual backdrop, characteristics that are more susceptible to solar farms.

Sensitivity Assessment

- 3.4.2 The landscape sensitivity assessment for the 7 VSAA's scoped into the LVIA is set out in **Table 11C-8**. VSAA's are illustrated in **Figure 11.3**.

Table 11C-8 Assessment of Sensitivity: Visual and Sensory Aspect Areas (VSAAs)

Landscape Value		Landscape Susceptibility									Overall Landscape Sensitivity
Overall Evaluation (Q26/50)	Scale	Landform, Topography and Land cover	Landscape Pattern	Built Environment	Scenic Quality	Remoteness and Tranquillity	Openness and enclosure	Skyline	Surrounding Context	Overall susceptibility	
Caldicot Level (NWPRTVS037) - Host											
High	Medium	Low Levels, Medium	Medium Field Pattern/ Mosaic, Organised	Medium Scattered rural/farm, Caravan park, clustered and linear settlement, farmhouses, churches, power lines dominate, views of power station, wind turbines, stone, render, some brick – existing solar farms – infrequent access	Medium Attractive views across levels, detractors out to industrial, power station, steel works and in to power lines	Medium Infrequent access, very tranquil away from roads, slight light pollution	Medium Managed hedge, Open	Low	High Similar to adj VSAA, part of Gwent levels and links with Seven estuary and coast	Medium	Medium

Landscape Value											Overall Landscape Sensitivity
Landscape Susceptibility											
Overall Evaluation (Q26/50)	Scale	Landform, Topography and Land cover	Landscape Pattern	Built Environment	Scenic Quality	Remoteness and Tranquillity	Openness and enclosure	Skyline	Surrounding Context	Overall susceptibility	
Western Coastal Grassland (MNMTHVS053) - Host											
High	Medium	Low Levels, Large (medium)	Medium Open Land?, Regular	Medium Sparse settlement, small linear settlements and isolated farms sea wall. Scattered rural/farm, Caravan park, sewage works, scattered rural/farm, intrusive power lines, stone, slate, render, some bright brick (new housing) – infrequent access	Medium Attractive views to backcloth of hills and in from edge of estuary, detractors out to Undy and pylons	Medium Infrequent access, slight light pollution	Medium Mixture, Open	Low	High Similar to adj VSAA, part of Gwent Levels	Medium	Medium

Landscape Value		Landscape Susceptibility									Overall Landscape Sensitivity
Overall Evaluation (Q26/50)	Scale	Landform, Topography and Land cover	Landscape Pattern	Built Environment	Scenic Quality	Remoteness and Tranquillity	Openness and enclosure	Skyline	Surrounding Context	Overall susceptibility	
Llanwern (NWPRTVS044) - Host											
Low	Medium	Low Levels, Large, (medium)	Low Development, Organised	Low Urban, Constant access, Neutral steel (appropriate), primary colours (inappropriate) some brick (redevelopment)	Low Attractive views out to detractors in to industrial buildings, warehouses, pylons and housing (inc under construction)	Low Steelworks (being dismantled)Constant access, unattractive, noisy substantial light pollution	Medium Fences, Open	Low	Medium Located on and intervisible with Levels – part of Gwent Levels	Low	Low
Estuary Mudflats (NWPRTVS007)											
Outstanding	Low	Low Levels, Vast	High Water, Random	High No settlement, Occasional access, stone flood defence	High Attractive views in and out over estuary and across area	High occasional access, tranquil, remote, wild, no light pollution	High None, Exposed	Low	High Similar to adj VSAA, adj to Severn estuary – part of Gwent	High	High

Landscape Value											Overall Landscape Sensitivity
Landscape Susceptibility											
Overall Evaluation (Q26/50)	Scale	Landform, Topography and Land cover	Landscape Pattern	Built Environment	Scenic Quality	Remoteness and Tranquillity	Openness and enclosure	Skyline	Surrounding Context	Overall susceptibility	
					from embankment, detractors at edge of Newport						Levels
Severn Estuary (NWPRTVS008)											
Outstanding	Low	Low Levels, Vast	High Water, Unity	High No settlement, Rare access, stone flood defence	High Attractive views in and out over estuary and across area from embankment, detractors at edge of Newport	High Rare access, tranquil, remote, wild, no light pollution	High None, Exposed	Low	High Similar to adj VSAA, adj to and defined by coast – part of Gwent Levels	High	High
Western Saltmarsh & Mudbanks (MNMTHVS057)											

Landscape Value											Overall Landscape Sensitivity
Landscape Susceptibility											
Overall Evaluation (Q26/50)	Scale	Landform, Topography and Land cover	Landscape Pattern	Built Environment	Scenic Quality	Remoteness and Tranquillity	Openness and enclosure	Skyline	Surrounding Context	Overall susceptibility	
Outstanding	High	Medium Levels, Small	High Open Land, Random	High No settlement, Rare access, Inappropriate construction materials?	High Attractive views in from WCP and out to estuary, detractors out of pylons	High Rare access, wild, no light pollution	High None, Open	Low	High With estuary – part of Gwent Levels	High	High
Bedwin Sands (MNMTHVS095)											
Outstanding	Low	Low Levels, Vast	High Water, Random	High No settlement, Rare access, stone embankment (flood defence)	High Attractive views in and out across estuary, detractors out of pylons and Avonmouth	High Rare access, wild, no light pollution	High None, Exposed	Low	High Similar to adj VSAA, part of Severn estuary – part of Gwent Levels	High	High

3.5 Historic Landscape Aspect Areas (HLAAs)

Defining value and susceptibility

3.5.1 The landscape value and susceptibility of the HLAAs is considered in relation to the following criteria:

- **Landscape Value:**
 - Q23 of the HLAA LANDMAP Survey Sheet.
- **Landscape Susceptibility:**
 - *Landscape Pattern:* Q4, Q5 & Q12 of the HLAA LANDMAP Survey Sheet and OS/ aerial assessment. Low would represent unenclosed land or rectilinear field patterns which may complement the modern aesthetic of solar farms characteristics that are less susceptible to solar farms. High would represent irregular small-scale patchwork or medieval field patterns where solar farms may overwhelm the scale and landscape pattern, characteristics that are more susceptible to solar farms.
 - *Built Environment:* Q4 & Q5 of the HLAA LANDMAP Survey Sheet, Q3, Q6 & Q20 of the corresponding VSAA Survey Sheet and OS map/ aerial / field survey observations. Indicators of lower susceptibility would include the presence of modern structures such as wind turbines, transport, overhead lines or communications infrastructure as well as industrial and large-scale commercial development and the visible influences of quarrying or landfill, or land reclaimed from coal extraction. Areas which are characterised by long-established, traditional or historic built forms including historic structures such as traditional stone-built farmsteads, stone-built field barns and stone field boundary walls are likely to be more susceptible to solar farm development.
 - *Views to/from Historic Landscape and Cultural Heritage Features:* Q16, Q17, Q18, Q19, Q20, Q21 & Q22 of the LANDMAP Survey Sheet and OS map/ aerial/ field survey observations. Indicators of low

susceptibility would include no or little presence of or intervisibility between designated areas or key focal sites (such as World Heritage Sites (WHS), Registered Historic Landscapes, Registered Parks and Gardens, Conservation Areas; Scheduled Monuments, landmarks or visitor attractions, such as historic hill forts/castles/church towers and monuments or memorials). High susceptibility would represent areas of significant intrinsic historic landscape character and potential for preserved archaeological evidence or landscapes which are important to the views within - or the setting of - key designated landscape and cultural heritage areas/focal features.

- *Surrounding Context:* Q2 of the LANDMAP Survey Sheet if special or functional links available and OS map/ aerial assessment. Low would represent self-contained landscape with limited relationship with adjacent areas., characteristics that are less susceptible to solar farms. High would represent Landscapes that are closely connected to the adjacent / surrounding areas in terms of similar character or visual backdrop, characteristics that are more susceptible to solar farms.

Sensitivity Assessment

3.5.2 The landscape sensitivity assessment for the 6 HLAA's scoped into the LVIA is set out in **Table 11C-9**.

Table 11C-9 Assessment of Sensitivity: Historic Landscape Aspect Areas (HLAAs)

	Landscape Value		Landscape Susceptibility			Overall Landscape Sensitivity
	Overall Evaluation (Q23)	Built Environment	Views to/from Historic/Cultural Heritage Features	Surrounding Context	Overall susceptibility	
Whitson (NWPRTL019) – Host	Outstanding	Medium Limited landscape features, large rectangular fields, water/wetland, nucleated and non-nucleated settlement, hedgerow inc with trees, stone/earth banks, fences, reens	Medium Linear village and farms, Porton hamlet adj Whitson Church, nucleated and non-nucleated settlement, sea wall. Scattered rural/farm, Caravan park, clustered and linear settlement, farmhouses, churches, power lines dominate, views of power station, wind turbines, stone, render, some brick – existing solar farms	High Limited inter-visibility with site SMR Yes 9, SAM Yes 1 (Grangefield near VP 8), LBs Yes 6, RHP&G No, CAs Yes?? Where No, WHS No, <u>Reg Landscape of Historic Interest</u> <u>Yes – Gwent Levels.</u>	High High Similar to adj HLAA – Gwent Levels	High
Redwick (NWPRTL018) – Host	Outstanding	Medium irregular fieldscapes, water/wetland, reclaimed land, nucleated settlement at Redwick, hedgerow inc with trees, stone/earth banks, fences, reens	Medium Medieval village of Redwick largest nucleated village on the levels, church, cottages and farmhouses, sea wall. Scattered rural/farm, Caravan park, clustered and linear settlement, farmhouses, churches, power lines dominate, views of power station, stone, render, some brick – existing solar farms	High Limited inter-visibility with site SMR Yes 9, SAM No, LBs Yes 2 inc prominent church, RHP&G No, CAs Yes Redwick, WHS No, <u>Reg Landscape of Historic Interest</u> <u>Yes – Gwent Levels.</u>	High High Similar to adj HLAA – Gwent Levels	High

	Landscape Value		Landscape Susceptibility			Overall Landscape Sensitivity
	Overall Evaluation (Q23)	Built Environment	Views to/from Historic/Cultural Heritage Features	Surrounding Context	Overall susceptibility	
Caldicot Level (MNMTHHL001 – Host	Outstanding	Medium irregular fieldscapes, regular fieldscapes, water/wetland, reclaimed land, isolated farms and small linear settlement, reens (hedgerow inc. with trees, stone/earth banks, fences (observed)	Medium Sparse settlement, small linear settlements and isolated farms sea wall. Scattered rural/farm, Caravan park, sewage works, scattered rural/farm, intrusive power lines, stone, slate, render, some bright brick (new housing)	High Limited inter-visibility with site SMR Yes 12, SAM Yes (inc relic seawall MM226 – not coastal one or near site), LBs Yes?? – not near site, RHP&G No, CAs No, WHS No, <u>Reg Landscape of Historic Interest</u> <u>Yes – Gwent Levels.</u>	High High Similar to adj HLAA – Partially Gwent Levels although not identified on HLAA	High
East Usk and Llanwern Industrial (NWPRTL022) – Host	High	Low Marginal land, reclaimed land, water/wetland, non-nucleated settlement, processing/manufacturing, comms, hedgerow inc with trees, walls, fences, railings, reens	Low Significant industrial landscape C20th (Llanwern Steelworks), also recent Gwent Euro Park – now being cleared and resi being built (Glan Llyn). non-nucleated settlement, processing/manufacturing, comms. Pylon and OHL, warehouses, urban, neutral steel, primary colours (detractors), new brick.	Medium Limited inter-visibility with site SMR Yes 20+, SAM No, LBs Yes – limited and not near site, RHP&G No, CAs Yes??? Where No, WHS No, Reg Landscape of Historic Interest No – although appears to be within Gwent Levels according to our info.	Low Low No links	Medium

	Landscape Value		Landscape Susceptibility			Overall Landscape Sensitivity
	Overall Evaluation (Q23)	Built Environment	Views to/from Historic/Cultural Heritage Features	Surrounding Context	Overall susceptibility	
Nash/Goldcliff Coastal Zone (NWPRTL017)	Outstanding	Medium irregular fieldscapes, water/wetland, reclaimed land, nucleated settlement at Redwick settlements within this HLAA are linear), designed landscape, hedgerow inc with trees, stone/earth banks, fences, reens	Medium Dispersed settlement with farms and scattered cottages. Nash and Goldcliff now largely modern, churches, nucleated settlement, designed landscape. Scattered rural/farm, Caravan park, clustered and linear settlement, farmhouses, churches, power lines dominate, views of power station, wind turbines, sea wall, stone, render, some brick – existing solar farms	High Limited inter-visibility with site SMR Yes 11, SAM Yes 2 but not near site, LBs Yes 4 inc church, RHP&G No, CAs Yes??? Where No, WHS No, <u>Reg Landscape of Historic Interest</u> Yes – Gwent Levels.	High Similar to adj HLAA – Gwent Levels	High
Peterstone and the Portland Grounds (NWPRTL047)	Outstanding	Low Intertidal foreshore, sand, marginal land, water/wetland, stone rubble bank, reens.	High The foreshore is incredibly rich in intertidal archaeological features from almost all periods. Relict structures exist such as posts probably relating to a former fishing use, no settlement, stone flood defence	High SMR Yes??? Where No, SAM No, LBs No, RHP&G No, CAs Yes??? Where No, WHS No, <u>Reg Landscape of Historic Interest</u> Yes – Gwent Levels	High Similar to adj HLAA (although not identified – Gwent Levels	High

3.6 Cultural Landscape Services Aspect Areas (CLSAAAs)

Defining value and susceptibility

3.6.1 The landscape value and susceptibility of the CLSAAAs is considered in relation to the following criteria:

- **Landscape Value:**
- None provided in CLSAA LANDMAP Survey Sheet: Collation of Landscape Condition (VSAA Q27), Scenic Quality (CLSAA Q12), Sense of place/ local distinctiveness (CLSAA Q8), Rarity (World Heritage Sites and HER assets) (CLSAA Q23, Q26 & Q28) and Artistic/ folklore/ events & tradition Value (CLSAA Q17, Q19, Q21).
- **Landscape Susceptibility:**
 - *Landscape Pattern:* Q5 & Q16 of the VSAA LANDMAP Survey Sheet and OS/ aerial assessment. Low susceptibility would represent large scale regular or rectilinear field patterns which may complement the modern aesthetic of solar farms. High susceptibility would represent irregular small-scale patchwork or medieval field patterns where solar farms may overwhelm the scale and landscape pattern, characteristics that are more susceptible to solar farms.
 - *Built Environment:* Q4 & Q5 of the HLAA LANDMAP Survey Sheet, Q3, Q6 & Q20 of the corresponding VSAA Survey Sheet and OS map/ aerial / field survey observations. Indicators of lower susceptibility would include the presence of modern structures such as wind turbines, transport, overhead lines or communications infrastructure as well as industrial and large-scale commercial development and the visible influences of quarrying or landfill, or land reclaimed from coal extraction. Areas which are characterised by long-established, traditional or historic built forms including historic structures such as traditional stone-built farmsteads, stone-built field barns and stone field boundary walls are likely to be more susceptible to solar farm development.

- *Remoteness and Dark skies.* Q1, Q6 & Q7 of the CLSAA, Q3, Q18 & Q24 of the VSAA LANDMAP Survey Sheets and OS map/ aerial assessment. Low would represent an area that feels closer to people and human activities (conversely a remote area not valued for wildness or tranquillity would have a lower number of visual receptors), characteristics that are less susceptible to solar farms. High would represent an area that feels remote from people and human activities (conversely, landscapes that are settled / built up would have a higher number of visual receptors), characteristics that are more susceptible to solar farms.

Sensitivity Assessment

3.6.2 The landscape sensitivity assessment for the 3 CLSAAs scoped into the LVIA is set out in **Table 11C-10**.

Table 11C-10 Assessment of Sensitivity: Cultural Landscape Services Aspect Areas (CLSAs)

Aspect Area		Landscape Value		Landscape Susceptibility			Overall Landscape Sensitivity
		Overall Evaluation	Landscape pattern	Built Environment	Remoteness and dark skies	Overall susceptibility	
Caldicot Level (NWPRTCLS051) - Host	Medium Fair, High, Strong, No, 90, ?, N/A, N/A, N/A	Medium Taken from VSAA	Medium Taken from HLAA	Medium Medium from VSAA, Slight light pollution, +75% tranquil, No Dark Sky Reserve	Medium	Medium	
Western Coastal Grasslands (MNMTHCLS082) - Host	Medium Fair, Moderate, Strong, No, 24, ?, N/A,	Medium Taken from VSAA	Medium Taken from HLAA	Medium Medium from VSAA, Slight light pollution, +75% tranquil, No Dark Sky Reserve	Medium	Medium	

Aspect Area	Landscape Value		Landscape Susceptibility			Overall Landscape Sensitivity
	Overall Evaluation	Landscape pattern	Built Environment	Remoteness and dark skies	Overall susceptibility	
	N/A, N/A					
Llanwern (NWPRTCLS061) – Host	Low Poor, Low, Weak, No, 10, ?, N/A, N/A, N/A	Low Taken from VSAA	Low Taken from HLAA	Low Low from VSAA, Substantial light pollution, +75% tranquil, No Dark Sky Reserve	Low	Low