East Anglia THREE
Offshore Windfarm

East Anglia THREE

EAONE Landscape Masterplan

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East Anglia ONE
Offshore Windfarm

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Landscape Masterplan

East Anglia Bramford Connection Developments

July 2016

EA1-CON-F-IBR-010114

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Revision Control

Revision and Approvals					
Rev	**Date**	**Reason for Issue**	**Originated by**	**Checked by**	**Approved by**
0	02-05-2016	Draft for review	Simon Martin (OPEN)	Steve Wheatley (OPEN)	Claire Davies (IEC)
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1 Introduction

1.1 Project Overview

1. East Anglia ONE Limited (EAOL) was awarded Development Consent Order (DCO) by the Secretary of State Department of Energy and Climate Change (DECC) on June 17th 2014 for East Anglia ONE Offshore Wind Farm (EA ONE). The DCO granted consent for the development of a 1200MW offshore windfarm and associated infrastructure.

2. In February 2015 EAOL secured a Contract for Difference (CfD) award to build a 714MW project and ScottishPower Renewables announced its role in leading East Anglia ONE towards construction. In April 2015 EAOL submitted a non-material change application to DECC to amend the consent from direct current (DC) technology to alternating current (AC). In March 2016 DECC authorised the proposed change application and issued a Corrections and Amendments Order.

3. The onshore construction works associated with EA ONE comprise of the following, which is based on the AC technology with a capacity of 714MW and a transmission connection of 680MW:

    - A landfall site at Bawdsey, Suffolk.
    - Up to six underground cables, approx. 37km in length.
    - Up to four cable ducts for future East Anglia THREE project.
    - An onshore substation located at Bramford next to existing National Grid infrastructure.

4. In addition to EA ONE, there are proposals for substations required for future phases of the East Anglia Offshore Wind Farm Developments (proposed East Anglia THREE (EA THREE) and potential 'East Anglia Future Project' (EAF), which are herein collectively referred to as the 'East Anglia Bramford Connection Developments'.

5. These East Anglia Bramford Connection Developments are to be located near Bramford, Suffolk, to the north of the existing National Grid substation. The site is situated in agricultural land and has inherent rural characteristics.

1.2 Purpose and Scope

6. SPR appointed Optimised Environments (OPEN), a landscape design and architectural practice, to develop a landscape masterplan to illustrate the general principles and coordinated phased nature development of the East Anglia Bramford Connection Developments. OPEN were also appointed to undertake the Environmental Impact Assessment Landscape and Visual Impact Assessment for EA THREE.

7. This landscape masterplan has been prepared as further information to guide and inform the EA ONE Landscape Management Plan (EA1-CON-F-GBE-008554). This process presents an opportunity to establish a successful long-term approach for the area and for this type of infrastructure development.

8. This landscape masterplan forms part of EAOL's commitment on EA ONE to undertake a 'Design Review' in conjunction with the Local Planning Authorities and Design Council. The Design Council has recommended that a long-term approach is adopted towards the development of the onshore substation site for the East Anglia Bramford Connection Developments, to ensure that the infrastructure required to serve the East Anglia ONE project and subsequent projects is integrated into the surrounding landscape.

9. In line with suggestions made by the Design Council, this landscape masterplan also sets out the long-term landscape masterplan for the development of the onshore substation site for the East Anglia Bramford Connection Developments and shows the potential interaction and spatial relationships between the East Anglia ONE project and future developments.

10. This landscape masterplan takes a longer-term approach to the design and integration of the East Anglia Bramford Connection Developments, anticipating where possible, future and current phases of development. This landscape masterplan guides the evolution of the landscape and informs the development of an appropriate response for each phase of development that will sit within an overall landscape framework. The establishment of robust, long-term spatial principles

through this landscape masterplan provides stakeholders with confidence that the infrastructure projects will be developed and managed successfully.

11. Currently, there is more certainty about the design and detailed landscape proposals for the consented EA ONE substation development, than for the future phases of development. The proposals for EA THREE are based upon the EA THREE Landscape and Visual Impact Assessment (LVIA) which assumes a worst case scenario design envelope and proposals for EAF are indicative, therefore these will be reviewed and updated at the appropriate time as part of the development of the relevant future project.

12. The East Anglia Bramford Connection Developments Landscape Masterplan should be read in conjunction with the East Anglia Bramford Connection Developments - Architectural Report (EA1-CON-F-IBR-010113). This report guides and informs the design approach outlined for EA ONE and principles in terms of the form, colour and materials applicable to all of the East Anglia Bramford Connection Developments. The landscape masterplan together with the architectural proposals, demonstrate how current and future proposals are likely to respond to the local context and minimise potentially adverse visual impacts.

1.3 Site location and Context

13. In general terms, the landscape around the East Anglia Bramford Connection Developments is predominantly farmed agricultural land. Large open fields feature extensively around the site, which are mainly used for arable crops. Field boundaries are often hedgerows with occasional hedgerow trees and intermittent woodlands or woodland shelterbelts.

14. The East Anglia Bramford Connection Developments are situated within the Ancient Plateau Claylands Landscape Character Type (LCT) and as such inherits some, but not all, of the characteristics of that LCT. The Ancient Plateau Claylands LCT is described in the Suffolk Landscape Character Assessment as:

- Gently rolling heavy clay plateaux with ancient woodlands.
- Flat or gently rolling arable landscape of clay soils dissected by small river valleys.
- Field pattern of ancient enclosure – random patterns in the south but often co-axial in the north. Small patches of straight-edged fields associated with the late enclosure of woods and greens.
- Dispersed settlement pattern of loosely clustered villages, hamlets and isolated farmsteads of medieval origin.
- Villages often associated with medieval greens or tyes.
- Farmstead buildings are predominantly timber-framed, the houses colour-washed and the barns blackened with tar. Roofs are frequently tiled, though thatched houses can be locally significant.
- Scattered ancient woodland parcels containing a mix of oak, lime, cherry, hazel, hornbeam, ash and holly.
- Hedges of hawthorn and elm with oak, ash and field maple as hedgerow trees.
- Substantial open areas created for WWII airfields and by 20th century agricultural changes.
- Network of winding lanes and paths often associated with hedges create visual intimacy.

15. The landscape is predominantly agricultural (arable) in nature with the land use pattern relating to the topography. Many of the field boundaries are a mixture of intact areas of hedgerow with mature trees, areas with some gaps or occasional trees, and large sections with no hedgerow. There are large areas of mature vegetation surrounding the site – blocks of ancient and semi-natural woodland, tree belts and hedgerows, which provide good natural screening of the site. Communication links include the busy A14 to the east, the rail line through the Gipping valley and a network of minor roads, tracks and footpaths in the west of the area. Overhead powerlines and pylon towers form linear man-made features in the landscape and cross through the surrounding countryside, converging on the existing National Grid (NG) substation at Bramford, which is itself a prominent feature in the local landscape. The presence of the adjacent Bramford NG Substation provides screening to the south and, in association with the overhead powerlines and pylons, establishes an energy infrastructure character that impacts upon the inherent rural landscape character of the area.

16. The main settlement pattern in the area is of isolated farmsteads and small villages which are scattered throughout the landscape and often situated within the valleys. The local area interspersed with farm buildings, barns and residential houses. To the east, lies the western edge of Ipswich which is visible in long views from elevated positions across the area. The settlements of Sproughton and Bramford extend the urban influence into the area. Views are extensive, particularly on higher ground and frequently open. Small woodland blocks and sections of hedgerow are seen in many views and can limit views in lower lying areas. Overhead powerlines and pylons are seen on the skyline in most views within the area. Views into

the site from immediate surrounding areas are generally restricted by existing vegetation. The plateau landform does provide a number of open distant views, but the network of winding lanes and tall hedges means that other areas can be much more intimate with restricted views out into the surrounding landscape.

2 Approach to Landscape Masterplan

2.1 Overview - Aims and objectives

17. The primary aim of the landscape proposals in this landscape masterplan is to develop a landscape framework around the East Anglia Bramford Connection Developments that provides sufficient visual screening to mitigate the visual impact of these developments and integrate them sensitively within the landscape.

18. During design development, three approaches to the landscape masterplan were considered:

- Hidden - completely hide the East Anglia Bramford Connection Developments from the surrounding landscape and deny it is there.
- Integrated - adapt and relate the East Anglia Bramford Connection Developments to the existing landscape, allowing views to the substation.
- Exposed - the East Anglia Bramford Connection Developments become a primary part of the landscape, equal to other elements and not screened.

19. The landscape approach chosen was a combination of ‘hidden’ and ‘integrated’. This approach acknowledges the key requirement for reasonable visual screening of the East Anglia Bramford Connection Developments, which has been a clear preference expressed during public and stakeholder consultations for the EA ONE and EA THREE projects. Due to technical constraints, it would be unrealistic to completely screen the entirety of the substations, therefore some element of integration is required and is considered suitable to allow some recognisability of the function of the grid connection developments, when viewed in the context of the existing National Grid infrastructure nearby.

20. This landscape masterplan proposes both screening earthworks and woodland planting to address the main aim of providing visual screening of the East Anglia Bramford Connection Developments. New hedgerows are also proposed to be planted to supplement the woodland framework around the East Anglia Bramford Connection Developments. This landscape masterplan also provides areas of species rich grassland and Sustainable Drainage System (SuDS) ponds, providing enhanced habitat benefits in their own right, while also providing further visual contrast with the ‘technological’ appearance of the grid connection developments. Arable farming fields that are retained for agricultural use will contribute to retaining the rural character in the area around the developments.

21. This landscape masterplan seeks to ensure early establishment of tree and hedgerow planting, in order to deliver mitigation as early as possible for all projects, to the extent that the relevant order limits allow.

22. Three phases of this landscape masterplan for the East Anglia Bramford Connection Developments are illustrated in Figures 1 – 3 (EA1-GRD-DG-OPEN-MPLAN-01 to 03) and described in the subsequent sections of this report, as follows:

- Phase 1 EA ONE Landscape Masterplan – Section 3.1, Figure 1.
- Phase 2 EA THREE Landscape Masterplan – Section 3.2, Figure 2.
- Phase 3 EA Future Projects Masterplan – Section 3.3, Figure 3.

23. The subsequent landscape masterplan narrative is intended to show the build-up of these phases as each East Anglia Bramford Connection Development project progresses.

3 Landscape Masterplan Phases

3.1 Introduction

24. The landscape masterplan for the East Anglia Bramford Connection Developments is set out in three phases, illustrated in Figures 1 – 3, as follows:

- Phase 1 EA ONE Landscape Masterplan.
- Phase 2 EA THREE Landscape Masterplan.
- Phase 3 EA Future Projects Masterplan.

25. The following narrative of each phase of the masterplan is provided to show the intended build-up of 'layers' as each project progresses, including the intended landscape mitigation arrangements.

3.2 Phase 1: EA ONE Landscape Masterplan

3.2.1 Introduction

26. The overarching provisions of the landscape masterplan for EA ONE (Figure 1 EA1-GRD-DG-OPEN-MPLAN-01) have been developed in conjunction with the proposals for the EA ONE landscape management plan. The Phase 1 EA ONE Landscape Masterplan primarily proposes screening earthworks and woodland planting to address the main aim of providing visual screening of the East Anglia Bramford Connection Developments. These are described as follows, in addition to other landscape mitigation measures proposed, including hedgerow planting and habitat enhancements.

3.2.2 Earthworks / proposed ground levels

27. The finished ground level within the EA ONE substation compound will be 56m AOD. This will require an amount of re-grading and movement of topsoil and subsoil from within the substation area. It is proposed to use and retain this material on-site to create earthwork bundings to form part of the visual screening strategy and mitigation. Material will also be gained for this purpose from the construction works site compound area.

28. The proposals are for the highest part of the earthwork bund along the western and southern side of the EA ONE substation to be 4m higher than the substation platform level (i.e. 60m AOD). The intention is to grade the ground up to 60m AOD from the 56m substation platform at a grade of 1:3. This grade of slope also allows for safe maintenance access. The bund is then shaped so that it falls at a gentler grade of 1:5 (or shallower) away from the substation to the west/south-west.

29. These earthworks are illustrated in the contours in Figure 1: EA ONE Landscape Masterplan (EA1-GRD-DG-OPEN-MPLAN-01)). The purpose of these earthworks is to provide screening and containment of the EA ONE substation in views from the west and south-west, including residences and Public Rights of Way (PRoW) in the areas between Flowton, Burstallhill and Burstall.

30. The extent and the height of the earthworks have been developed to have a smoothly graded, natural looking slope when viewed from the west/south-west, which provides screening of the EA ONE substation.

31. The landscape masterplan seeks to ensure early creation of earthworks during the construction works, in order to deliver a stable platform to allow for mitigation planting to commence as early as possible for the EA ONE substation.

3.2.3 Woodland planting

32. A woodland framework surrounding the EA ONE substation will be developed through the planting of native mixed deciduous woodlands. The key element of this proposal, as illustrated in Figure 1, is for the planting of woodland blocks to extend the existing woodland 'groves' that are characteristic in the local landscape (such as Fore Grove, Bushey Grove and Gobert's Grove) to provide further visual screening to the west, south and east of the EA ONE substation.

33. The size and location of woodland blocks responds to key visual receptors/views and technical constraints, such as high-voltage overhead power lines. The proposed woodland planting broadly uses a varied woodland species mix to create areas of locally characteristic lowland mixed deciduous woodland.

34. These areas will act as the 'core' woodland areas and will be supplemented by areas of faster growing woodland species to create blocks of 'nursery' planting. These 'nursery' crops will primarily provide shelter to the generally slower growing 'core' woodland areas, but also provide some earlier visual screening of the proposed developments.

35. Substantial areas of woodland will be planted during the EA ONE Landscape Masterplan phase, totalling 7.9ha as shown in Figure 1:

- To the immediate west and south-west of the substation, in order to provide visual screening of the EA ONE substation in views from residences and PRoW in the areas between Flowton, Burstallhill and Burstall.
- To the immediate north of the substation, in order to reinforce the visual screening provided by Fore Grove and Bushey Grove in views from the north, such as Tye Lane and settlements beyond at Somersham and Little Blakenham.
- To the east of the substation, extending Gobert's Grove between the existing overhead power lines and the Bramford NG Substation. Woodland planting will be located near the access road junction to Bullen Lane, to extend woodland that is locally characteristic along Bullen Lane and provide a setting to the access road and its SuDs basin. These areas of woodland will provide screening from the east such as the PRoW, Bullen Lane and Bramford.
- Further smaller areas of woodland planting will provide visual separation between the access tracks to the EA ONE substation and the existing Bramford NG access track.

36. Planting will be established early in the construction of the EA ONE substation, where possible, to allow trees and planting additional growth time and allow mitigation to occur at the earliest opportunity. In part, this will help to safeguard against the impact of ash dieback upon existing woodlands which perform an important screening function.

3.2.4 Hedgerows

37. New mixed native species hedgerows are also proposed to be planted to supplement the woodland framework around the East Anglia Bramford Connection Developments. The EA ONE Landscape Masterplan (Figure 1) shows the hedgerow planting proposed for the EA ONE substation. Proposed hedgerows will consist of mixed native species hedge, which will combine with the woodland planting areas to integrate the EA ONE substation into the landscape.

38. A hedgerow is proposed along the top of the earthwork bund around the western and southern perimeter of the EA ONE substation, in order to provide screening for the substation and soften the appearance of the perimeter fence.

39. Further hedgerow planting will be undertaken along either side of the proposed access track, in order to integrate the access road into the rural landscape and to provide a visual separation between existing bridleway and the proposed access road.

3.2.5 Grassland

40. Once the EA ONE substation has been constructed, the earthworks formed and woodland planting undertaken there will be areas which will be potentially unsuitable for continued agricultural land use. These areas have been identified for the establishment of species rich grassland. These areas are proposed to the south between the EA ONE substation site and Bramford NG substation; to the south-west between the EA ONE substation and SuDS pond; and to the east on restored ground in the area of the EA ONE construction works area (Figure 1). Areas of species rich grassland will be established with a range of plants that are likely to thrive in the nutrient rich soils of the site.

41. Agricultural activity will be restricted in these areas and land management will encourage the establishment and maintenance of species rich grassland, to increase the diversity of flowering plants and other species as a habitat and feeding area for a variety of invertebrates, birds and mammals. The creation of lowland meadow grassland will contribute to creation of priority habitat as defined by Suffolk Biodiversity Partnership.

42. The establishment of areas of species rich grassland provides enhanced habitat benefits in their own right, while also providing visual contrast with the 'technological' appearance of the grid connection developments; and offsetting and providing balance to the appearance of the energy infrastructure.

3.2.6 SuDS Pond

43. A large detention basin with a small permanent pond is proposed to the south-west of the EA ONE substation site (Figure 1) as part of a potential component of the SuDS. The use of land to the south-west of the EA ONE substation is proposed a feasible point for a SuDS attenuation pond (designed to store surface water), based on the site topography as it is relatively lower lying. Existing flow paths and discharge points will need to be modified by the development, with indicative flow routes shown in Figure 1.

44. The SuDS basin and pond can support emergent and submerged aquatic vegetation along its edges and in shallow, marshy zones, which enhance treatment processes and is intended to have amenity and biodiversity benefits. Additionally, a wet woodland mix has been proposed for planting within part of the detention basin. The SuDS for the EA ONE substation will be detailed in documents prepared in accordance with the DCO for EA ONE.

45. A second smaller SuDs basin is located within the eastern part of the site to capture and treat surface water run-off primarily from the access road. This basin is designed to be a dry basin.

3.2.7 Farmland

46. Arable farmland will be retained in the fields to the east of the EA ONE substation, between Bramford NG substation and Bullenhall Farm (Figure 1), where a practicable arrangement for arable farming can be achieved. Arable farming fields that are retained for agricultural use will contribute to retaining the rural character in the area around the developments.

3.2.8 Access Road

47. The access for EA ONE will consist of a 6m wide road. The surface material of the road is to be cement concrete with the intention that the road will have a rural character similar to typical farm access tracks in the area. The road will start just west of the Bullenhall Farm access track, and run parallel to the Bridleway to the north of the Bramford National Grid substation before turning north and heading towards EA ONE. Both sides of the road will have a mixed native hedge; intermittent small woodland blocks will also be planted alongside the road. The hedges and the woodland blocks aim to visually separate the access track from views from the Bridleway and also to visually separate the EA ONE development from the National Grid substation. Detailed road design and vehicle tracking will need to be undertaken to determine the final road geometry

48. A second access track, to allow for maintenance of the SuDS detention basin is will also be installed from the main access road to the detention basin in the west. This track will be 3.5m wide and will be constructed using a proprietary grass road product,

3.3 Phase 2: EA THREE Landscape Masterplan

3.3.1 Introduction

49. The provisions of the landscape masterplan for EA THREE (Figure 2 EA1-GRD-DG-OPEN-MPALN-02) will be used to refine the design response and potential mitigation proposals for the East Anglia THREE project. The EA THREE Landscape Masterplan is based upon the worst case design for EA THREE which is currently undergoing examination.

50. Phase 1 of the landscape masterplan will be delivered as part of the construction of the EA ONE substation development. As described above in Section 3.2, this includes the construction of earthworks to the south-west, together with the establishment of woodland 'groves' to the west, south-west and east of the EA THREE site.

51. The Phase 2 EA THREE Landscape Masterplan (Figure 2) primarily proposes additional screening earthworks and woodland planting to the north of the EA THREE site to address the main aim of providing additional visual screening of the EA THREE substation in views from the north. These are described as follows, in addition to other landscape mitigation measures proposed, including hedgerow planting and habitat enhancements.

3.3.2 Earthworks / proposed ground levels

52. The finished ground level within the EA THREE substation compound is anticipated to be 54m AOD. This will require an amount of re-grading and movement of topsoil and subsoil from within the substation area. It is proposed to use and retain this material on-site to create additional earthwork bunding to the north of the site, to supplement the visual screening strategy and mitigation.

53. The earthwork proposals, shown in Figure 2, are for the highest part of the earthwork bund along the northern side of the EA THREE substation to be 5m higher than the substation platform level (i.e. 59 m AOD). The intention is to grade the ground up to 59 m AOD from the 54m substation platform at a grade of 1:3 maximum grade. This is a relatively 'engineered' landscape bund designed primarily for screening purposes, but its form is considered suitable in this context as it will be screened from the north by Bushey Grove and screened from the south by the EA THREE substation itself. Additionally, it will be planted with woodland, such that it will therefore not be visible as bare ground, and it will increase the screening potential of the woodland in views from the north of the EA THREE site.

54. The purpose of these earthworks is to provide screening and containment of the EA THREE substation in views from the north and north-east, including roads, residences and Public Rights of Way (PRoW) in the areas around Tye Lane and settlements beyond at Somersham and Little Blakenham.

55. The extent and the height of the earthworks may vary once a detailed full cut-and-fill exercise is undertaken as part of the detailed civil engineering works for EA THREE, although the principle is to have an earthwork to the north of the site that provides screening of the EA THREE substation.

56. The landscape masterplan seeks to ensure early creation of earthworks during the construction works, in order to deliver mitigation as early as possible for the EA THREE substation.

3.3.3 Woodland planting

57. Phase 1 of the landscape masterplan will be delivered as part of the construction of the EA ONE substation development. As described above in Section 3.2, this includes the establishment of a woodland framework to the west, south-west and east of the EA THREE site.

58. The Phase 2 EA THREE Landscape Masterplan (Figure 2) primarily proposes additional woodland planting to the north of the EA THREE site, to address the main aim of providing additional visual screening of the EA THREE substation in views from the north. The key element of this proposal, as illustrated in Figure 2, is for the planting of native mixed deciduous woodland blocks, to extend the existing woodland 'groves' that are characteristic in the local landscape (such as Bushey Grove and Gobert's Grove) to provide further visual screening to the north of the East Anglia Bramford Developments.

59. The size and location of woodland blocks responds to key visual receptors/views and technical constraints, such as high-voltage overhead power lines. The proposed woodland planting broadly uses a varied woodland species mix to create areas of locally characteristic lowland mixed deciduous woodland. In addition, faster growing nursery woodland species will be planted to provide shelter to the main woodland core areas but also initial visual screening.

60. Substantial areas of woodland will be planted during the EA THREE masterplan phase, totalling around 5.0ha as shown in Figure 2:

- To the immediate north of the site extending north in fields between the existing Bushey Grove woodland and high-voltage transmission line, in order to provide visual screening of the EA THREE substation in views from the north.
- To the north-east of the site the existing Gobert's Grove westwards, in order to reinforce the visual screening provided in views from the north, such as Tye Lane and settlements beyond at Somersham and Little Blakenham.

61. Planting will be established early in the construction of the EA THREE substation, where possible, to allow trees and planting additional growth time and allow mitigation to occur at the earliest opportunity. In part, this will help to safeguard against the impact of ash dieback upon existing woodlands which perform an important screening function.

3.3.4 Hedgerows

62. New mixed native species hedgerows are also proposed to be planted to supplement the woodland framework. The Phase 2 EA THREE Landscape Masterplan (Figure 2) shows hedgerow planting proposed for the EA THREE development. Proposed hedgerows will consist of mixed native species hedge, which will combine with the woodland planting areas to integrate the EA THREE substation into the landscape.

63. Hedgerows are proposed along the southern perimeter of the EA THREE site and along the field boundary to the east, in order to provide screening of the EA THREE substation and soften the appearance of the perimeter fence.

3.3.5 Grassland

64. Further areas of species rich grassland are proposed to the south between the EA THREE substation site and Bramford NG substation; to the east on restored ground over the EA THREE underground cables; and to the north underneath the existing high-voltage transmission line (Figure 2). Areas of species rich grassland will be established with a range of plants that are likely to thrive in the nutrient rich soils of the site.

65. Agricultural activity will be restricted in these areas and land management will encourage the establishment and maintenance of species rich grassland to increase the diversity of flowering plants and other species as a habitat and feeding area for a variety of invertebrates, birds and mammals.

66. The maintenance of areas of species rich grassland provides enhanced habitat benefits in their own right, while also providing visual contrast with the 'technological' appearance of the grid connection developments.

3.3.6 SuDS Pond

67. A SuDS pond is proposed to the north-east of the EA THREE substation site (Figure 2) as part of a potential component of the SuDS. The use of land to the north-east of the EA THREE substation is proposed a feasible point for a SuDS attenuation pond (designed to store surface water), based on the site topography as it is relatively lower lying. Existing flow paths and discharge points will need to be modified by the development, with indicative flow routes shown in Figure 2.

68. The SuDS pond can support emergent and submerged aquatic vegetation along its edges and in shallow, marshy zones, which enhance treatment processes and is intended to have amenity and biodiversity benefits. The SuDs for the EA THREE substation will designed in full to address surface water drainage requirements in respect of relevant planning consent conditions.

3.3.7 Access Road

69. The access road for EA THREE shares much of the length of the same access road as per EA ONE. The final access into EA THREE is anticipated to be via a short section of spur road. Detailed road design and vehicle tracking will need to be undertaken to determine the final road geometry.

3.4 Phase 3: EA Future Project Landscape Masterplan

3.4.1 Introduction

70. The provisions of the landscape masterplan for EA Future Project (Figure 3 EA1-GRD-DG-OPEN-MPLAN-03) will be used to inform the design response and potential mitigation proposals for the EA Future Project.

71. Phase 1 of the landscape masterplan will be delivered as part of the construction of the EA ONE and Phase 2 identifies proposals anticipated to be delivered as part of EA THREE. As described above in Section 3.3, this includes the construction of earthworks to the south-west of EA ONE and north of EA THREE, together with the establishment of woodland 'groves' on all sides of the EA Future Project site.

72. As such, the landscape framework should be established ahead of the EA Future Project, therefore the Phase 3 EA Future Project Landscape Masterplan (Figure 3) proposes relatively limited additional mitigation, consisting primarily additional woodland planting to the east of the EA Future Project site, near Bullenhall Farm, to address the aim of providing further visual screening in views from the east.

3.4.2 Earthworks / proposed ground levels

73. The finished ground level within the EA Future Project substation compound is indicatively proposed at 52m AOD. This will require an amount of re-grading and movement of topsoil and subsoil from within the substation area in order to create a flat platform. No further earthwork bunding is proposed to the north of the EAF substation site, as this area will have established woodland planted during the Phase 2 EA THREE Landscape Masterplan, which will provide screening in views from the north.

3.4.3 Woodland planting

74. The landscape framework should be established ahead of the EA Future Project, therefore the Phase 3 EA Future Project Landscape Masterplan (Figure 3) proposes relatively limited additional mitigation, consisting primarily additional woodland planting to the east of the EA Future Project site, near Bullenhall Farm, to address the aim of providing further visual screening in views from the east. The area of additional planting is around 1.1ha.

3.4.4 Hedgerows

75. No further hedgerow planting is proposed as part of the Phase 3 EA Future Project landscape masterplan.

3.4.5 Grassland

76. Further areas of species rich grassland are proposed to the west between the EA Future Project substation site and the extended Bushey Grove woodland to the west, underneath the existing high-voltage transmission line (Figure 3). Areas of species rich grassland will be established with a range of plants that are likely to thrive in the nutrient rich soils of the site.

77. Agricultural activity will be restricted in these areas and land management will encourage the establishment and maintenance of species rich grassland to increase the diversity of flowering plants and other species as a habitat and feeding area for a variety of invertebrates, birds and mammals.

78. The maintenance of areas of species rich grassland provides enhanced habitat benefits in their own right, while also providing visual contrast with the 'technological' appearance of the grid connection developments.

3.4.6 SuDS pond

79. No further SuDS ponds are proposed as part of the Phase 3 EA Future Project Landscape Masterplan. At this stage, it is proposed that the SuDS pond proposed in the Phase 2 EA THREE Landscape Masterplan could potentially accommodate the surface water drainage requirements of the EA Future Project.

3.4.7 Access Road

80. The access road for EA Future Project is anticipated to share much of the same access road as per EA ONE and EA THREE. The final access into EA Future Project could be via a length of spur road running parallel to an existing overhead powerline. Detailed road design and vehicle tracking will need to be undertaken to determine the final road geometry. Note that the proposed route shown on the landscape masterplan is indicative only.

Figures