

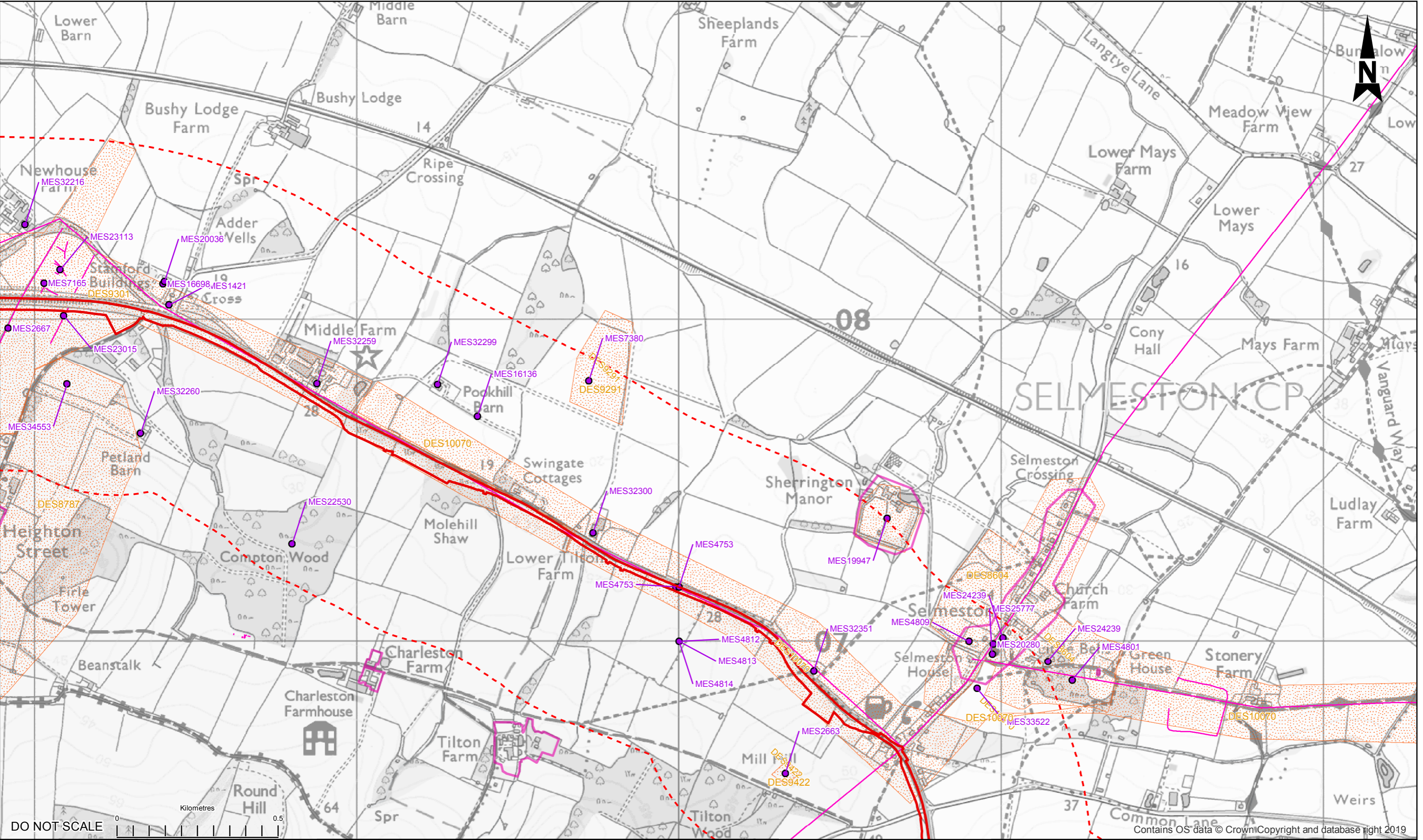


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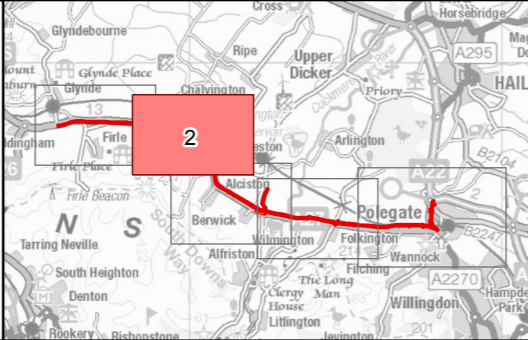
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Suitability	Project Title					
S0	A27 EAST OF LEWES					
4 5000 uk	Drawing Title					
	FIGURE 4.2: NON - DESIGNATED ASSETS 500M STUDY AREA PAGE 1 OF 5					
	Scale	Drawn	Checked	Approved	Authorised	
	1:11,000	AS	CR	GK	MS	
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	A3	12/09/19	12/09/19	12/09/19	12/09/19	
	Drawing Number		Originator		Volume	
	Project		HE552988 WSP		Project Ref. No: 70035418	
					Revision	
					P01	
	Location		Type		Role	
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- KEY:**
- MAXIMUM EXTENT BOUNDARY
 - MAXIMUM EXTENT BOUNDARY 500M BUFR
 - NON - DESIGNATED HERITAGE ASSET (POINT)
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 - ARCHAEOLOGICAL NOTIFICATION AREAS



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P01.1		First Issue			

Drawing Status: **FINAL**

Suitability: **S0**

Project Title: **A27 EAST OF LEWES**

Drawing Title: **FIGURE 4.2: NON - DESIGNATED ASSETS 500M STUDY AREA PAGE 2 OF 5**

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Original Size: **A3**

Date: **12/09/19**

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Location: **WSP**

Type: **WSP**

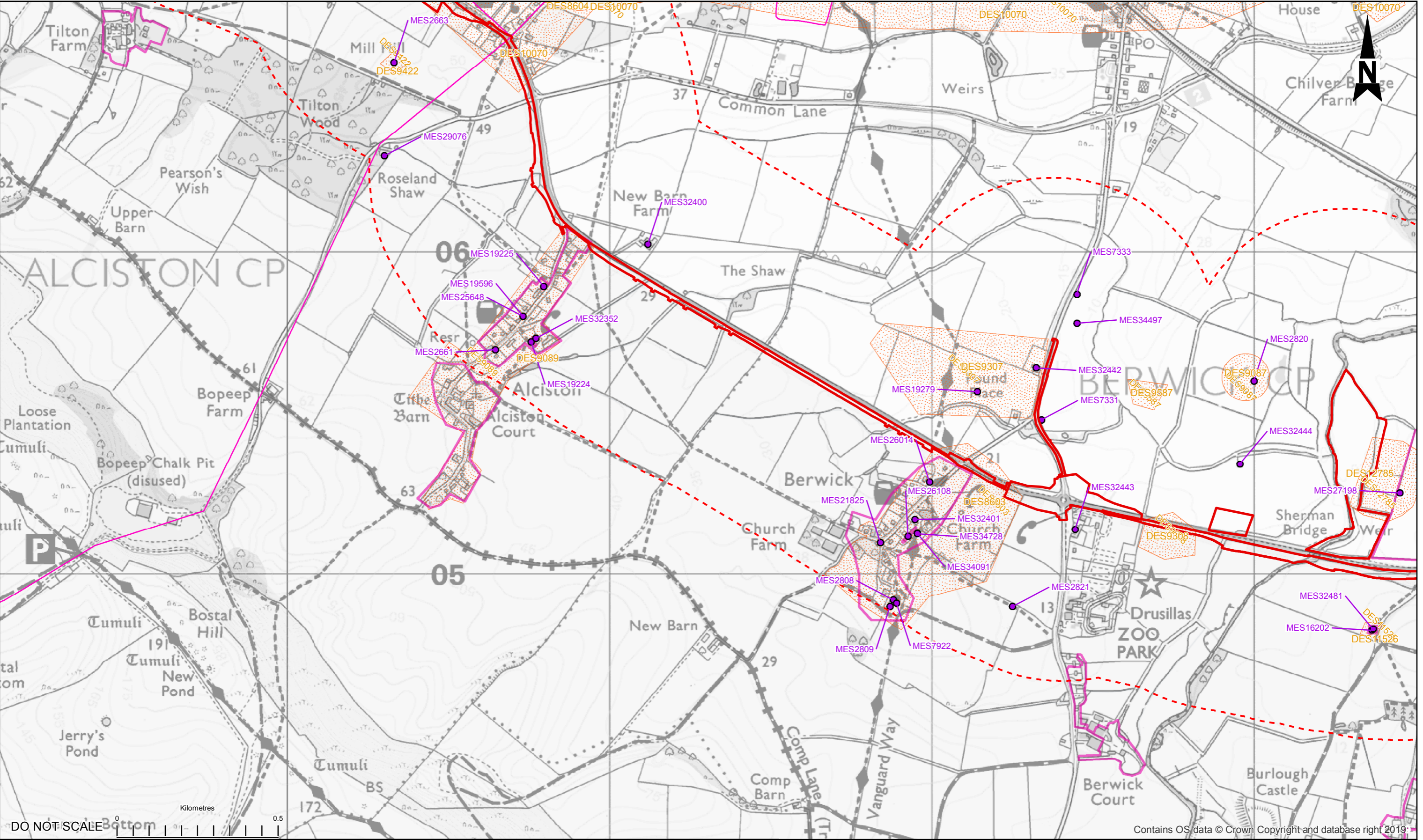
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MAXIMUM EXTENT BOUNDARY

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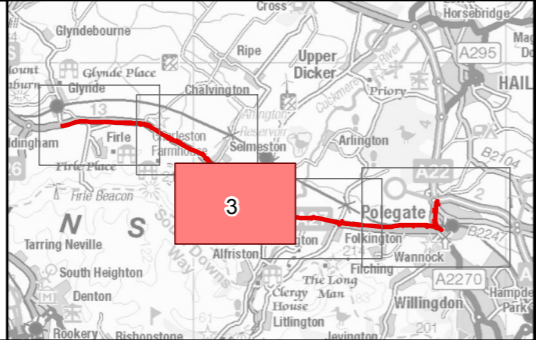
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ARCHAEOLOGICAL NOTIFICATION AREAS

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Drawing Status	FINAL
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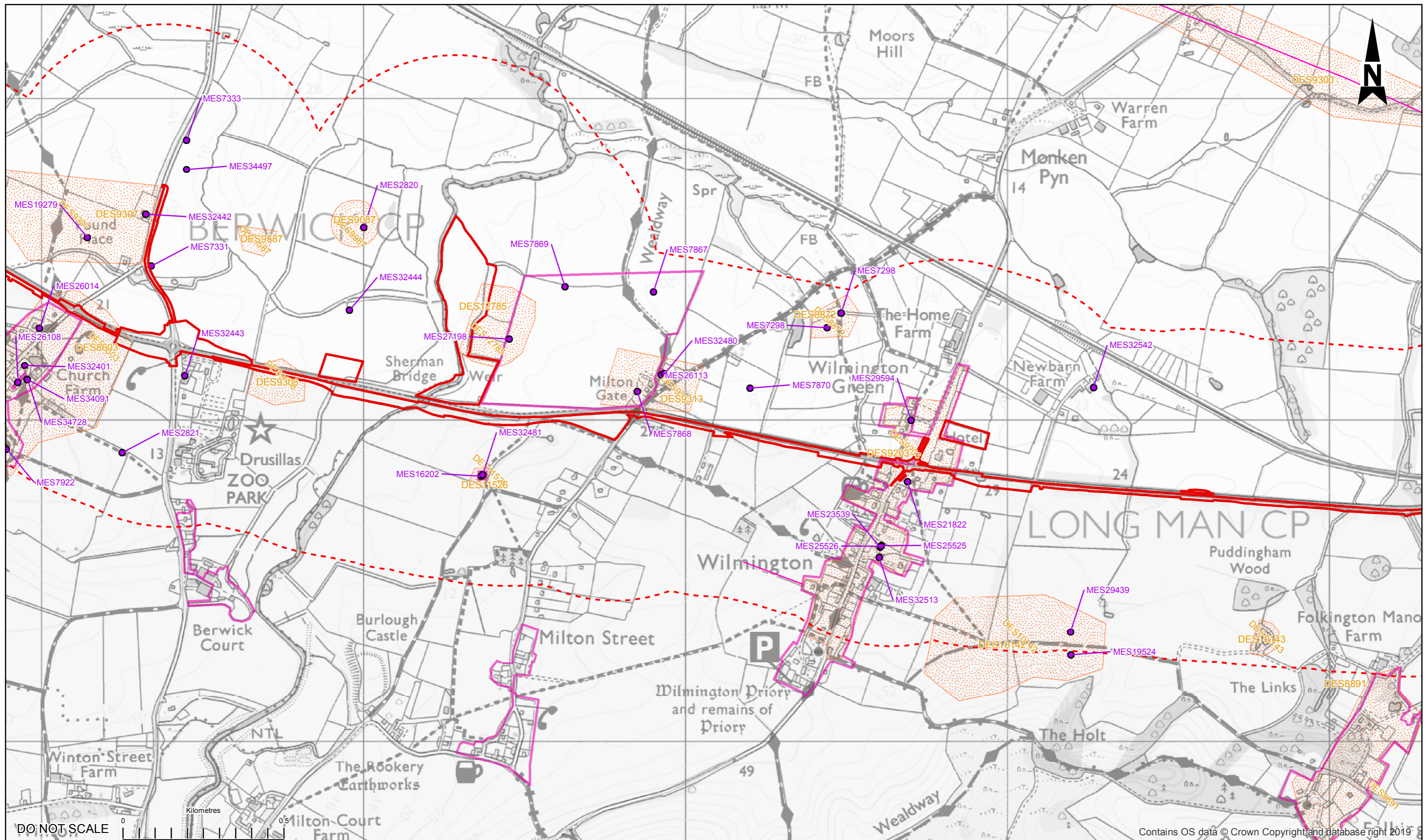
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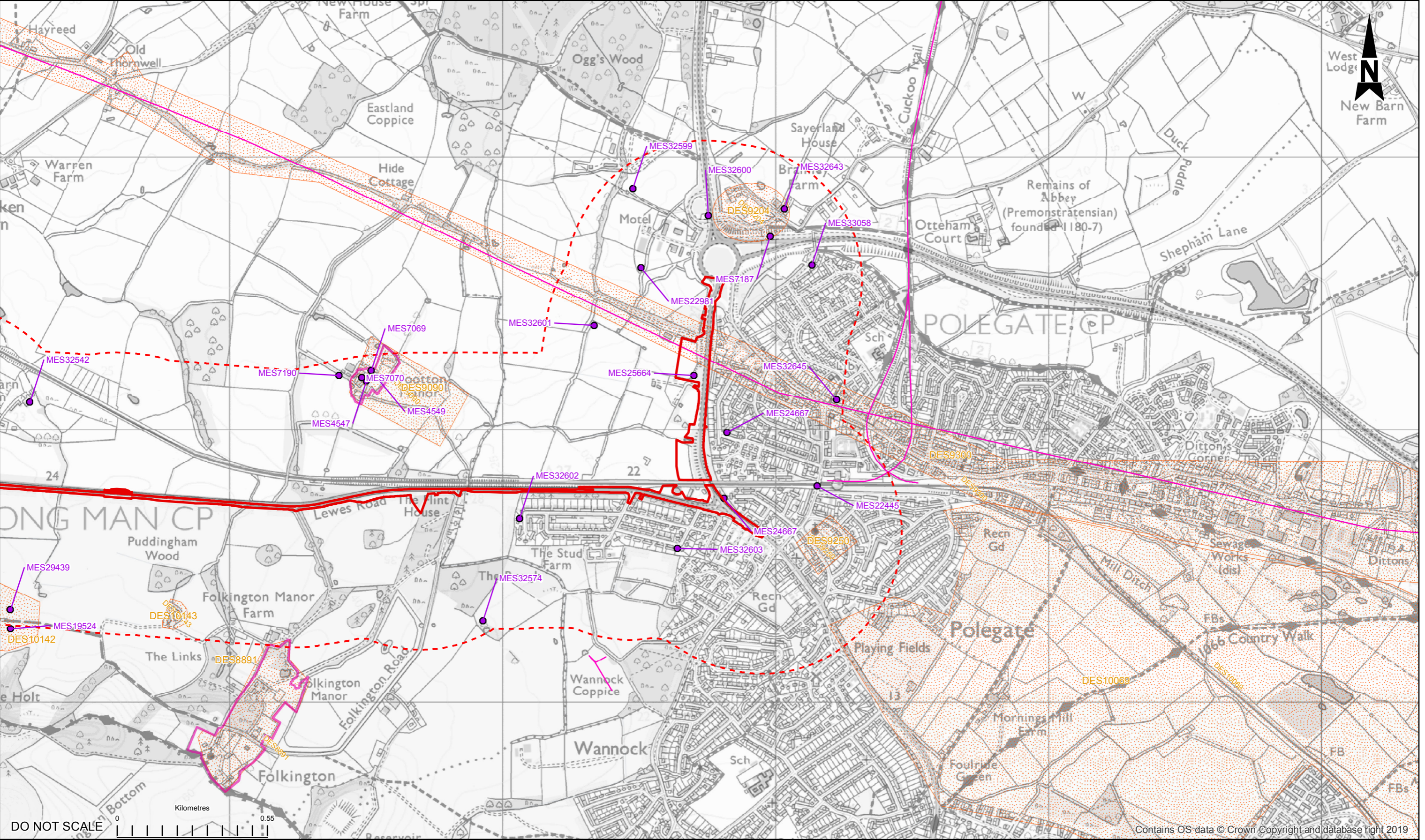
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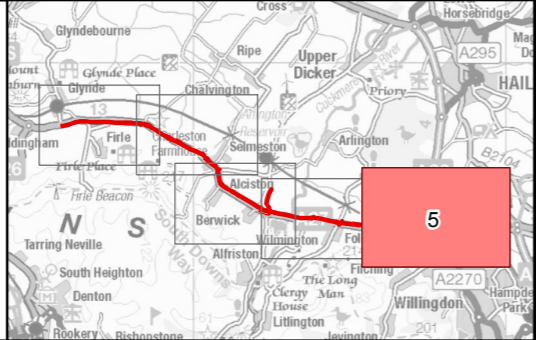


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5

LANDSCAPE EFFECTS

5.1 BASELINE CONDITIONS

- 5.1.1 The study area has been slightly revised as a result of proposed amendments to land take (see Figure 2.1) to reduce the size of some ecological planting areas (leaving more of the existing land as is) but creating a small area of additional ecological planting alongside the Cuckmere River (north of Sherman Bridge and the A27, between Berwick Junction in the west and Milton Gate in the east).
- 5.1.2 Whilst this has slightly increased the northern boundary of the Study Area into adjoining farmland, this has not resulted in any new or materially different landscape or visual receptors within the Study Area that are likely to receive any significant impacts. The increased area is located within Local Landscape Character Area 1 - The Lower Scarps and Weald Edge and within Wealden Character Area E3 – Arlington. No additional public rights of way or notable landscape features are located within the extended Study Area and no additional visual receptors.
- 5.1.3 The assessment methodology and baseline conditions are therefore considered to remain unchanged since submission of the PCF Stage 3 EAR and as a result are not considered further within this EAR Addendum chapter.

5.2 POTENTIAL IMPACTS

- 5.2.1 Given that the proposed changes will not result in any changes to the previously identified construction methods, timescales, processes or consequent effects, this chapter only considers materially new or materially different significant landscape or visual effects during the operational phase of the scheme.

LANDSCAPE CHARACTER IMPACTS

- 5.2.2 The proposed changes are not anticipated to result in any change to the previously assessed impact or residual effect at operation on Local Landscape Character Area 2: The High Downs, LLCA 3: The Edge of Polegate, or LLCA 4: Southern Edge of The Low Weald.
- 5.2.3 The proposed changes result in a slight increase in development (in the form of planting) within LLCA 1: The Lower Scarp and Weald Edge but this will not affect the results of the PCF Stage 3 EAR landscape character assessment.

VISUAL IMPACTS

The changes to the scheme (most notably the reduction in levels of woodland planting) is anticipated to affect the assessment for the following points and receptors:

- Viewpoint 6: Pathway at Charleston Farmhouse (near footpath intersection)
- Viewpoint 12: footpath east of Berwick)
- Viewpoint 13: Drusillas Roundabout from south side
- Viewpoint 14: Towards Drusillas Roundabout from west on A27
- Viewpoint 15: Cuckmere River crossing from footpath immediately west of Milton Street
- Longman Nursery

5.3 DESIGN, MITIGATION AND ENHANCEMENTS MEASURES

- 5.3.1 The slight reduction in planting areas to the south of the proposed path still allow for the inclusion of hedgerow with hedgerow trees and therefore a suitable degree of screening is still obtained. However, in some instances the reduction in extent of planting reduces the screening ability of the planting in some views.
- 5.3.2 The inclusion of some additional woodland planting along the Cuckmere River is not anticipated to impact on any visual receptors identified or the local landscape character of the area in terms of providing any mitigation planting.
- 5.3.3 There are therefore no changes to the design, mitigation or enhancement measures identified over and above those identified in the previous assessment (as outlined in Section 7.7 of Chapter 7 of the PCF Stage 3 EAR).

5.4 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

EFFECTS ON VISUAL RECEPTORS

- 5.4.1 The proposed changes are not anticipated to result in any change to views or visual amenity for the majority of visual receptors previously assessed. However, there may be some slight changes for visual receptors where the amount of planting has been slightly reduced in extent. These receptors are outlined in the following table, with an assessment of impact and effect at operation Year 1 provided. A comparison of the previous assessment is also given for reference.

Table 5.1 – Impacts and effects on visual receptors at Operation - Year 1					
RECEPTOR	SENSITIVITY	PREVIOUS ASSESSMENT		CURRENT ASSESSMENT	
		MAGNITUDE YEAR 1	EFFECT - YEAR 1	MAGNITUDE YEAR 1	EFFECT - YEAR 1
PUBLIC VISUAL RECEPTORS					
Viewpoint 3: Dairy Farm, Wick Street at gate opening to hedgerow on north side	Local road users on National Park edge near A27: Low – moderate	Negligible	Neutral/ slight adverse. The path will not be readily perceived as it is a horizontal element in the landscape – intermittently seen users would constitute a very small change in the context of the view (with some part-filtered views of busy traffic on A27)	Negligible	Neutral/ slight adverse. No change from previous assessment
Viewpoint 6: Pathway at Charleston Farmhouse (near footpath intersection)	Grounds of cultural visitor attraction / listed building: High	Negligible	Slight adverse. Insignificant around core area of estate	Negligible	Slight adverse. No change from previous assessment

Table 5.1 – Impacts and effects on visual receptors at Operation - Year 1

Viewpoint 12: footpath east of Berwick)	Footpath users: High	Negligible	Neutral/ Slight adverse. No clear visibility of Drusillas roundabout works at this distance, although it may be possible to pick out lighting columns	Negligible	Neutral/ Slight adverse. No change from previous assessment
Viewpoint 13: Drusillas Roundabout from south side	Approach to Drusillas Roundabout. Motorists users: Low	Negligible	Neutral to slight beneficial. Change of aspect through juvenile woodland and planting measures increased view into adjoining fields	Negligible	Neutral. Change from previous assessment – no juvenile woodland planting in the view
Viewpoint 14: Towards Drusillas Roundabout from west on A27	Road bounded by hedgerows approaching Drusillas Roundabout. Motorists users: Low	Negligible	Neutral. Further change of aspect through juvenile woodland broadly planted either side of road with view into adjoining fields remaining	Negligible	Neutral. No change from previous assessment (due to roadside hedgerow planting)
Viewpoint 15: Cuckmere River crossing from footpath immediately west of Milton Street	Footpath users: High	Minor adverse	Slight adverse. On completion of works the scale of impact will reduce with new embankment and planting perceptible as minor elements in the wider landscape, and adjoining the busy A27 corridor	Minor adverse	Slight adverse. No change from previous assessment
Viewpoint 17: Resident and Leisure Users of Wilmington Green	Green users: High Motorists: Low	Minor adverse	Slight adverse. On completion, most of work will be inconspicuous although new lighting columns will be a permanent feature of the roadside and The Green edge	Minor adverse	Slight adverse. No change from previous assessment
PRIVATE AND RESIDENTIAL RECEPTORS					
Gibraltar Farm, Paragliding Centre, off Wick Street	Residential and Business: High sensitivity	Minor adverse	Neutral/ Slight Adverse	Minor adverse	Neutral/ Slight Adverse. No change from previous assessment due to relocation of path

Table 5.1 – Impacts and effects on visual receptors at Operation - Year 1

Properties on south side of eastern end of Wick street near junction with A27	Residential Group and B+B: High sensitivity	Negligible adverse	Neutral/ Slight adverse. NMU path hedge will reduce impact	Negligible	Neutral/ Slight adverse. No change from previous assessment
Swinborn Cottages: east of Middle Farm	Residential: High sensitivity	Negligible adverse	Neutral/ Slight adverse	Negligible	Neutral/ Slight adverse. No change from previous assessment
Giants View	Residential: High sensitivity	Minor / Negligible adverse	Slight adverse	Minor / Negligible adverse	Slight adverse No change from previous assessment
Longman Nursery	Residential: High sensitivity	Negligible adverse	Neutral/ Slight adverse	Negligible	Neutral/ Slight adverse. No change from previous assessment

5.4.2

The residual effects of the proposed changes on visual receptors identified above are outlined in the following table, with a comparison of the previous assessment also given for reference.

Table 5.2 – Residual effects on visual receptors at Operation - Year 15

RECEPTOR	SENSITIVITY	PREVIOUS ASSESSMENT		CURRENT ASSESSMENT	
		MAGNITUDE YEAR 15	RESIDUAL EFFECT - YEAR 15	MAGNITUDE YEAR 15	RESIDUAL EFFECT - YEAR 15
PUBLIC VISUAL RECEPTORS					
Viewpoint 3: Dairy Farm, Wick Street at gate opening to hedgerow on north side	Local road users on National Park edge near A27: Low –moderate	No Change	Neutral Planting established; path integrated and no longer visible	No Change	Neutral No change from previous assessment
Viewpoint 6: Pathway at Charleston Farmhouse (near footpath intersection)	Grounds of cultural visitor attraction / listed building: High	No Change	Neutral Due to growth of woodland planting south of Moleshaw wood and in field to east. The path is embedded in the landscape	Negligible	Slight adverse. Change from previous assessment due to reduction in woodland planting

Table 5.2 – Residual effects on visual receptors at Operation - Year 15

Viewpoint 12: footpath east of Berwick)	Footpath users: High	No Change	Neutral. New woodland north of roundabout would further obscure any sign of the roundabout	Negligible	Neutral Change from previous assessment due to reduction in woodland planting
Viewpoint 13: Drusillas Roundabout from south side	Approach to Drusillas Roundabout. Motorists users: Low	Minor beneficial	Slight beneficial. Planting measures will create a greater sense of the area as a distinct space. Potential for further distinctiveness and enhancement by introduction of central feature by others	Negligible	Neutral. Change from previous assessment – due to reduced woodland planting in the view
Viewpoint 14: Towards Drusillas Roundabout from west on A27	Road bounded by hedgerows approaching Drusillas Roundabout. Motorists users: Low	Minor beneficial	Slight beneficial. Planting measures will create a greater sense of arrival at a destination	Negligible	Neutral Change from previous assessment – due to reduced woodland planting in the view
Viewpoint 15: Cuckmere River crossing from footpath immediately west of Milton Street	Footpath users: High	No change	Neutral, as path embedded in landscape and planting established	Negligible	Slight adverse. Change from previous assessment – due to reduced woodland planting in the view
Viewpoint 17: Resident and Leisure Users of Wilmington Green	Green users: High Motorists: Low	Negligible adverse	Slight adverse. While scheme would become embedded in the view, lighting columns would result in a permanent urbanising element from the baseline view	Negligible adverse	Slight adverse. No change from previous assessment
PRIVATE AND RESIDENTIAL RECEPTORS					
Gibraltar Farm, Paragliding Centre, off Wick Street	Residential and Business: High sensitivity	No Change	Neutral	No Change	Neutral. No change due to relocation of path
Properties on south side of eastern end of Wick street near junction with A27	Residential Group and B+B: High sensitivity	No Change	Neutral	No Change	Neutral. No change due to relocation of path

Table 5.2 – Residual effects on visual receptors at Operation - Year 15

Swinborn Cottages: east of Middle Farm	Residential: High sensitivity	No Change	Neutral	No Change	Neutral. No change from previous assessment
Giants View	Residential: High sensitivity	Minor / Negligible adverse	Neutral/ slight adverse	Minor / Negligible adverse	Neutral/ slight adverse No change from previous assessment
Longman Nursery	Residential: High sensitivity	No Change	Neutral	Negligible adverse	Neutral/ Slight adverse. Change from previous assessment – due to reduced woodland planting in the view

5.4.3 It can therefore be seen that there are some slight changes to the magnitude of impact and consequent residual effect on a number of visual receptors (namely viewpoints 6, 12, 13, 14 and 15 and receptors at Longmans Nursery) as a result of the reduction in woodland planting.

5.4.4 However, in every case the resulting residual effect is not expected to be significant and therefore the conclusions of PCF Stage 3 EAR Landscape and Visual Assessment Chapter (Chapter 7) remain valid.

6 BIODIVERSITY

6.1 BASELINE CONDITIONS

6.1.1 An additional area of land was put forward for planting that was not previously subject to Phase 1 habitat survey in its entirety. Accordingly, a site visit was carried out on 9th August to verify habitat types present in these fields¹. These comprised two fields. The findings of the survey were as follows:

- The southern field, adjacent to the A27 largely comprised a species-poor semi-improved grassland, with a strip of semi-improved neutral grassland immediately adjacent to the River Cuckmere. The field was bound by a species-poor hedgerow.
- The northern field was found to comprise an arable field with a margin around the perimeter formed of species-poor semi-improved grassland.

¹ Comprising land north of the A27 and east of the River Cuckmere on pages 15 to 17 of the Baseline Phase 1 habitat plan, Appendix C of the Biodiversity Net Gain Assessment. The site visit was made by an ecologist who is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) with over 5 years professional experience of carrying out Phase 1 habitat surveys.

6.1.2 These fields were checked against the desk study data (see Appendix 8.6 of the EAR), and no designated sites or protected/notable species records overlap with these areas. There are records of European eel *Anguilla anguilla* and scarce chaser dragonfly *Libellula fulva* associated with the River Cuckmere adjacent to the two fields.

6.1.3 It should be noted that following the update to the Biodiversity Net Gain (BNG) calculations, a small section of replacement habitat was added into the scheme. This has not had a material impact on the BNG calculations.

6.2 POTENTIAL IMPACTS

6.2.1 Alterations in proposals for planting potentially affect the following ecological features, considered as sensitive to 'habitat loss and creation during the construction phase':

- Reptiles
- Other habitat of ecological importance within the Survey Area
- Invertebrates
- Great crested newt (GCN)
- Reptiles
- Birds
- Bats (foraging and commuting)
- Hazel dormouse

6.2.2 Consideration is given below to the implications of these planting alterations on the receptors listed above. Other receptors or impact pathways are unlikely to be affected. The updated planting proposals (as detailed within the post development plan, Appendix B of the BNG report), take account of location specific requirements for habitat replacement, particularly with regards to great crested newt and hazel dormouse which are localised in their distribution within the scheme extent.

OTHER HABITATS OF ECOLOGICAL IMPORTANCE

6.2.3 The BNG report (see Appendix 6-1) concludes that the scheme will result in net gain for area based habitats. Whilst a net-loss for linear based habitats is anticipated, a significant overall increase in hedgerows will be delivered and it is not likely to be viable to include sufficient hedgerow habitat in the scheme boundary to deliver net-gain. It is therefore concluded that the scheme will result in positive overall effects upon biodiversity in terms of habitats, with significant increases in hedgerows and woodland. With specific regard to habitats which may qualify as HPI², the following changes in habitat extent will occur:

- Woodland: 2.30ha lost and 10.85ha created
- Hedgerows: 4661m lost and 8072m created³

² There will be no loss of ponds or running water HPI as a result of the scheme.

³ It is not known whether these hedgerows could qualify as 'Important', as defined under the Hedgerows Regulations (1997). These regulations permit the removal of hedgerows by a Highways Authority. Appendix 8-1 classifies hedgerows as species-rich or species-poor, providing an indication of their ecological value. Approximately 2,453m of species-rich hedge and 2,208m of species-poor hedge will be lost to the scheme. All hedgerows created will be species-rich.

→ Semi-improved neutral grassland: 3.82ha lost and 10.22ha created

- 6.2.4 It should be noted that proposals for planting close to the River Cuckmere include a buffer strip and therefore effects pertaining to over-shading of the riparian habitat are unlikely to be significant.

INVERTEBRATES

- 6.2.5 As set out above, the revised planting proposals will still result in an overall increase in the extent of habitats of ecological value. These habitats, including woodland, semi-improved neutral grassland and hedgerows, once successfully established, will increase the carrying capacity of the scheme for invertebrates.

GREAT CRESTED NEWT

- 6.2.6 With consideration of the additional survey data provided by the PCF Stage 5 team and revisions to planting proposals, calculations of habitat loss and gain in the core (within 50m of breeding ponds) and intermediate zones (within 250m of breeding ponds) have been re-run. These areas are shown on Appendix 6-1. The following habitats of negligible value to great crested newt have been excluded from these calculations: arable; amenity grassland; buildings and hardstanding.

TABLE 6-1 Loss of terrestrial Great Crested Newt Habitat. Temporary loss is stated in brackets and is additional to permanent loss.

HABITAT TYPE	CORE HABITAT (0-50M)	INTERMEDIATE HABITAT (50-250M)
Broadleaved woodland - semi-natural	0.156ha	1.430ha (0.06ha)
Plantation broadleaved woodland	0.084ha	0.015ha
Dense scrub	0.169ha	0.461ha (0.260ha)
Scrub - scattered	0.002ha	0.081ha
Neutral grassland - semi-improved	0.006ha	1.205ha (0.395ha)
Improved grassland	0.108ha	1.616ha
Other tall herb and fern - ruderal	0.013ha	-
Poor semi-improved grassland	0.505ha	1.289ha (0.272ha)
Total area	1.043ha	6.096ha (0.987 ha)

TABLE 6-1 Loss of terrestrial Great Crested Newt Habitat. Temporary loss is stated in brackets and is additional to permanent loss.

Hedgerow (measured in linear metres)	416m	2,488m (36 m)
Grand total (area-based habitats)	7.138ha (1.972ha)	
Total hedgerow	2904m (36)	

- 6.2.7 The scheme boundaries have been designed to ensure that terrestrial habitats are replaced in appropriate locations (i.e. within the vicinity of where they were lost). The habitats will be created within existing areas of no, or limited, ecological value to great crested newts. These areas largely comprise: arable; improved grassland; and poor semi-improved grassland. In total, approximately 1.4ha of core habitat and 10.1ha of intermediate habitat will be created. These habitats will be of a greater quality than those lost.

REPTILES

- 6.2.8 The scheme will result in the loss of habitat supporting reptiles. Assuming all semi-improved grassland and marshy grassland (5.6ha), hedgerow edge (0.5ha, assumed to be 1m wide) and woodland edge habitat (0.8ha, assumed to be a third of the total woodland area) supports reptiles, the scheme will result in the permanent loss of 6.9ha of suitable reptile habitat. Landscape proposals will include the creation of over 10.3ha of semi-improved grassland and scrub, 3.6ha of woodland edge habitat and 0.8ha of hedgerow edge habitat, representing a substantial increase in the total available habitat.

BIRDS

- 6.2.9 The scheme will result in the loss of habitat, of which woodland (2.3ha), scrub (0.9ha) and semi-improved or marshy grassland (5.6ha) are of the greatest potential value to birds in terms of foraging and nesting habitat. The landscape strategy will result in a substantial increase in the availability of these habitats as set out above.

BATS

- 6.2.10 As detailed above, there will be a substantial increase in area of habitats such as woodland, semi-improved grassland and hedgerow following completion of the scheme.

HAZEL DORMOUSE

- 6.2.11 The hazel dormouse survey data indicate that hazel dormouse are present within the scheme from east of Drusillas Roundabout to Puddingham Wood. The loss of woody vegetation in this area will total approximately: 0.1 ha of woodland, 2.0km of hedgerows and 0.2ha of scrub, representing a small proportion of the total in a local context. The landscape strategy provides for the creation of habitat in this area in excess of that to be lost, totalling 3.5ha of woodland, 0.2ha of dese scrub and 3.3km of hedgerows.

6.3 DESIGN, MITIGATION AND ENHANCEMENTS MEASURES

- 6.3.1 No further mitigation measures are proposed as a result of the scheme changes. Replacement habitat has been designed into the scheme as outlined in Section 2 of this EAR. No further mitigation beyond that outlined in the PCF Stage 3 EAR is required.

6.4 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

- 6.4.1 It is considered that the assessment of likely significant effects presented within the EAR remains valid as summarised in Table 6-2.

TABLE 6-2 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS		
Receptor	Effect	Significance
Other habitat of ecological importance within the Survey Area	Positive	Slight
Invertebrates	Positive	Slight
Great crested newt	Positive	Slight
Reptiles	Positive	Slight
Bats	Positive	Slight
Hazel dormouse	Positive	Slight

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SUMMARY

- 7.1.1 The changes to the scheme (as outlined in Section 2 of this EAR addendum) have been assessed in line with the methodology used in the PCF Stage 3 EAR.
- 7.1.2 None of the changes to the scheme have affected the significance of effects assessed in the PCF Stage 3 EAR. The mitigation requirements as outlined in the PCF Stage 3 EAR remain valid and applicable.

APPENDIX 6.1

**BIODIVERSITY NET GAIN (SEPARATE DOCUMENT)
(HE552988-WSP-EBD-SWI-RE-LA-00087-P04)**

