

# Lower Thames Crossing 9.173 ExQ2\_Q11.3.2 and ExQ2\_Q11.3.3 figures (Part 1 of 3)

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# Lower Thames Crossing 9.173 ExQ2\_Q11.3.2 and ExQ2\_Q11.3.3 figures

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#### 1 Introduction

#### 1.1 Introduction

- 1.1.1 This document provides the one outstanding figure required in response to ExQ2\_Q11.3.2. This figure illustrates areas of wetland habitats which are lost as a result of the Project, and where these losses would be mitigated through the provision of new wetland habitat creation. This aligns with figures provided at Deadline 6 to cover woodland, grassland, hedgerows and open mosaic habitats [REP6-114]. The figure for wetland habitat is given in Appendix A below.
- 1.1.2 Appendix B addresses ExQ2\_Q11.3.3, and provides figures to support understanding of what is included in the biodiversity net gain assessment. The following figures have been produced:
  - a. Figure 1 Baseline biodiversity net gain habitat value plan (area-based habitats)
  - b. Figure 2 Baseline biodiversity net gain habitat value plan (linear habitats)
  - c. Figure 3 Biodiversity net gain assessment impact plan
  - d. Figure 4 Post-development biodiversity net gain habitat value plan (areabased habitats)
  - e. Figure 5 Post-development biodiversity net gain habitat value plan (linear habitats)
- 1.1.3 These figures represent the biodiversity net gain assessment submitted at DCO, which used Metric version 3.1. For further details of this assessment and the supporting data and inputs, please refer to Environmental Statement (ES) Appendix 8.21: Biodiversity Metric Calculations [APP-417]. Any subsequent proposals to alter the Project post DCO submission will not be captured in these figures. It should be noted these figures are specific to the biodiversity net gain assessment and represent the application and outcomes of the Metric 3.1 assessment. The purpose of these figures is to illustrate what areas are included in the Metric 3.1 assessment, and where the relative biodiversity unit value lies within the Project both for the baseline and post-development assessment.
- 1.1.4 Figures 1 and 2 show the biodiversity unit value of the baseline area and linear habitats, respectively, that were included within the biodiversity net gain assessment. Habitats are coloured to represent their relative value in units per hectare or units per kilometre, respectively, as ascribed by Metric 3.1. As per the Metric, this was calculated using the following formulas:
  - a. For area-based habitats: distinctiveness score x condition score x strategic significance score
  - b. For hedgerow habitats: distinctiveness score x condition score x strategic significance score

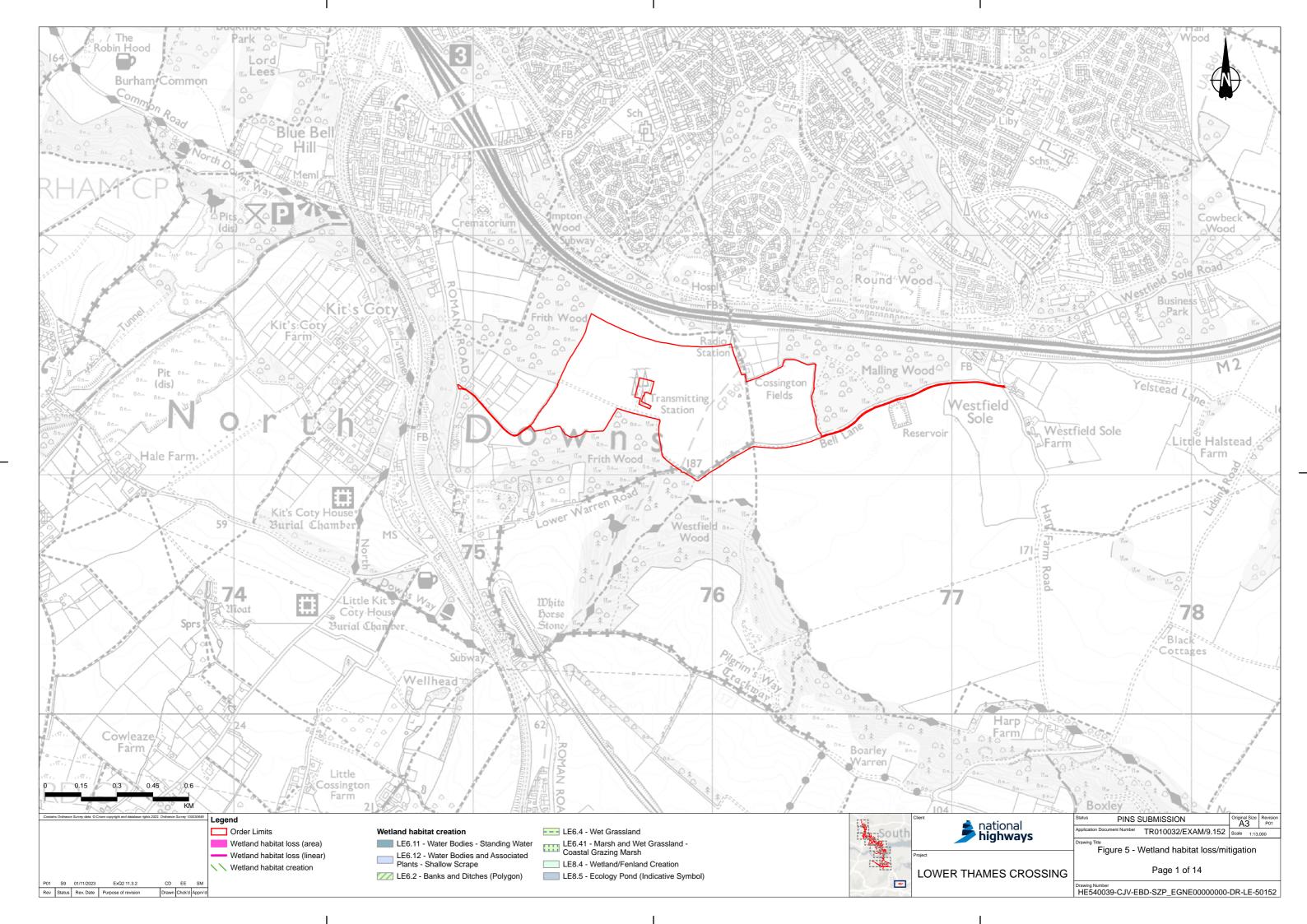
- c. For rivers and streams habitats: distinctiveness score x condition score x strategic significance score x watercourse encroachment multiplier x riparian encroachment multiplier
- 1.1.5 Areas excluded from the baseline biodiversity net gain assessment have been highlighted. These include the compensation areas for nitrogen deposition impacts and areas of affected (lost) irreplaceable baseline habitats (ancient woodland and wood-pasture and parkland).
- 1.1.6 Figure 3 shows how the impacts of the proposed Project have been identified for the purposes of the biodiversity net gain assessment. All areas included in the assessment were assigned one of the following impact types:
  - Retained habitats no change to existing baseline habitats
  - Reinstated habitats all habitats in temporary works areas were assumed to be lost and reinstated at this stage of the assessment
  - c. Habitat creation new habitats created within the permanent land holding
  - d. Permanent habitat loss habitats lost to new Project infrastructure
- 1.1.7 The method used to determine these impact types is detailed in ES Appendix 8.21: Biodiversity Metric Calculations [APP-417]. This figure also shows the compensation areas for nitrogen deposition impacts as excluded from the assessment.
- 1.1.8 Figures 4 and 5 show the biodiversity unit value of the post-development area and linear habitats, respectively, that were included within the biodiversity net gain assessment. Again, habitats are coloured to represent their relative value in units per hectare or units per kilometre, respectively, as ascribed by Metric 3.1. Areas excluded from the post-development biodiversity net gain assessment have also been highlighted. These include the compensation areas for nitrogen deposition impacts and areas of bespoke compensation for affected (lost) irreplaceable habitats.
- 1.1.9 The values of retained habitats were calculated using the formulas above for the baseline. As per the Metric, the values of reinstated, created, and enhanced habitats were calculated using the following formulas:
  - a. For area-based reinstated and created habitats: distinctiveness score x condition score x strategic significance score x final time to target multiplier x difficulty multiplier applied
  - b. For hedgerow reinstated and created habitats: distinctiveness score x condition score x strategic significance score x final time to target multiplier x difficulty multiplier applied
  - c. For rivers reinstated and created habitats: distinctiveness score x condition score x strategic significance score x final time to target multiplier x difficulty multiplier applied x watercourse encroachment multiplier x riparian encroachment multiplier

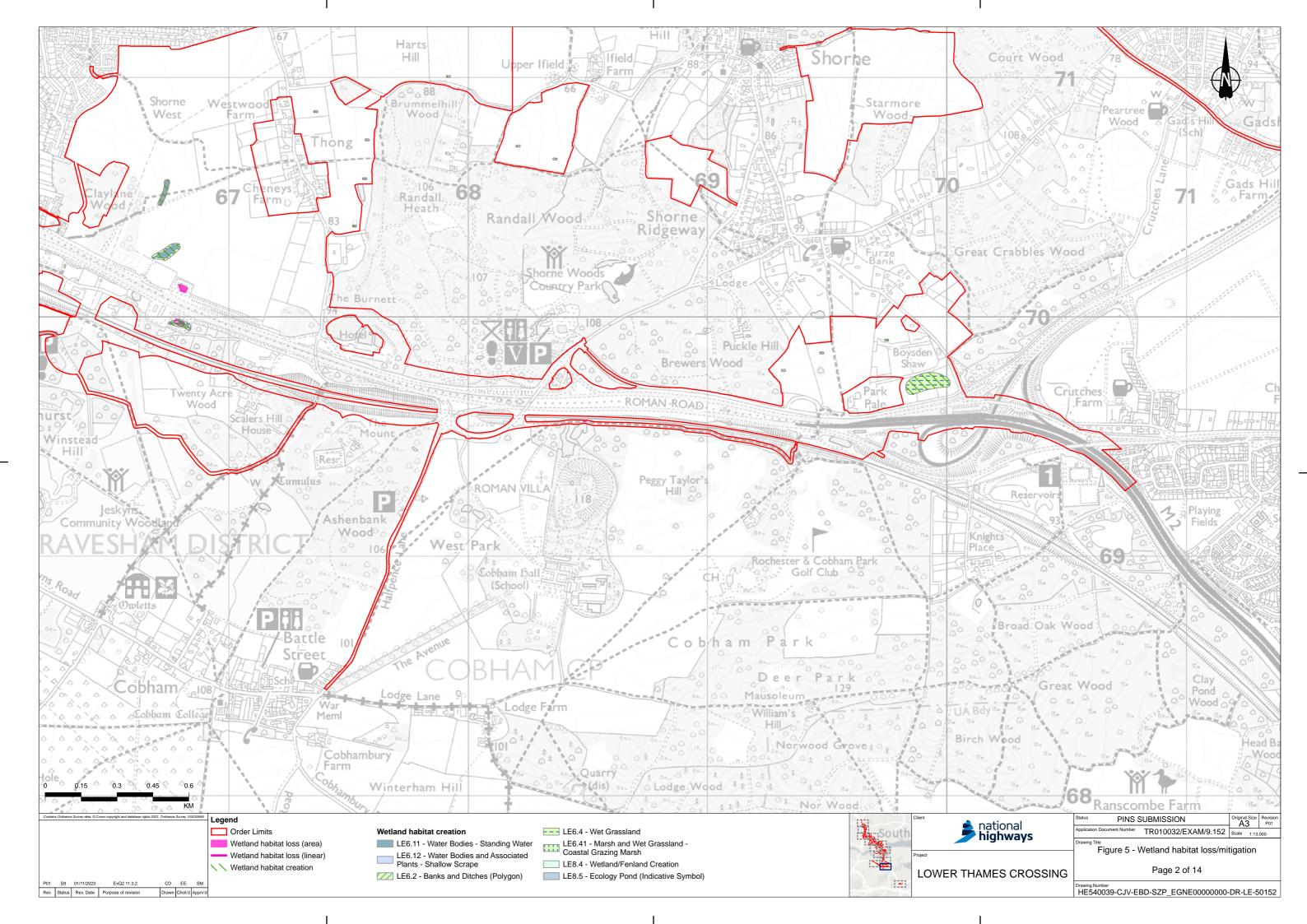
d. For rivers enhanced habitats: ((((distinctiveness score x condition score) - (baseline distinctiveness score x baseline condition score)) x (final time to target multiplier x difficulty multiplier applied)) + (baseline distinctiveness score x baseline condition score)) x (strategic significance score x watercourse encroachment multiplier x riparian encroachment multiplier)

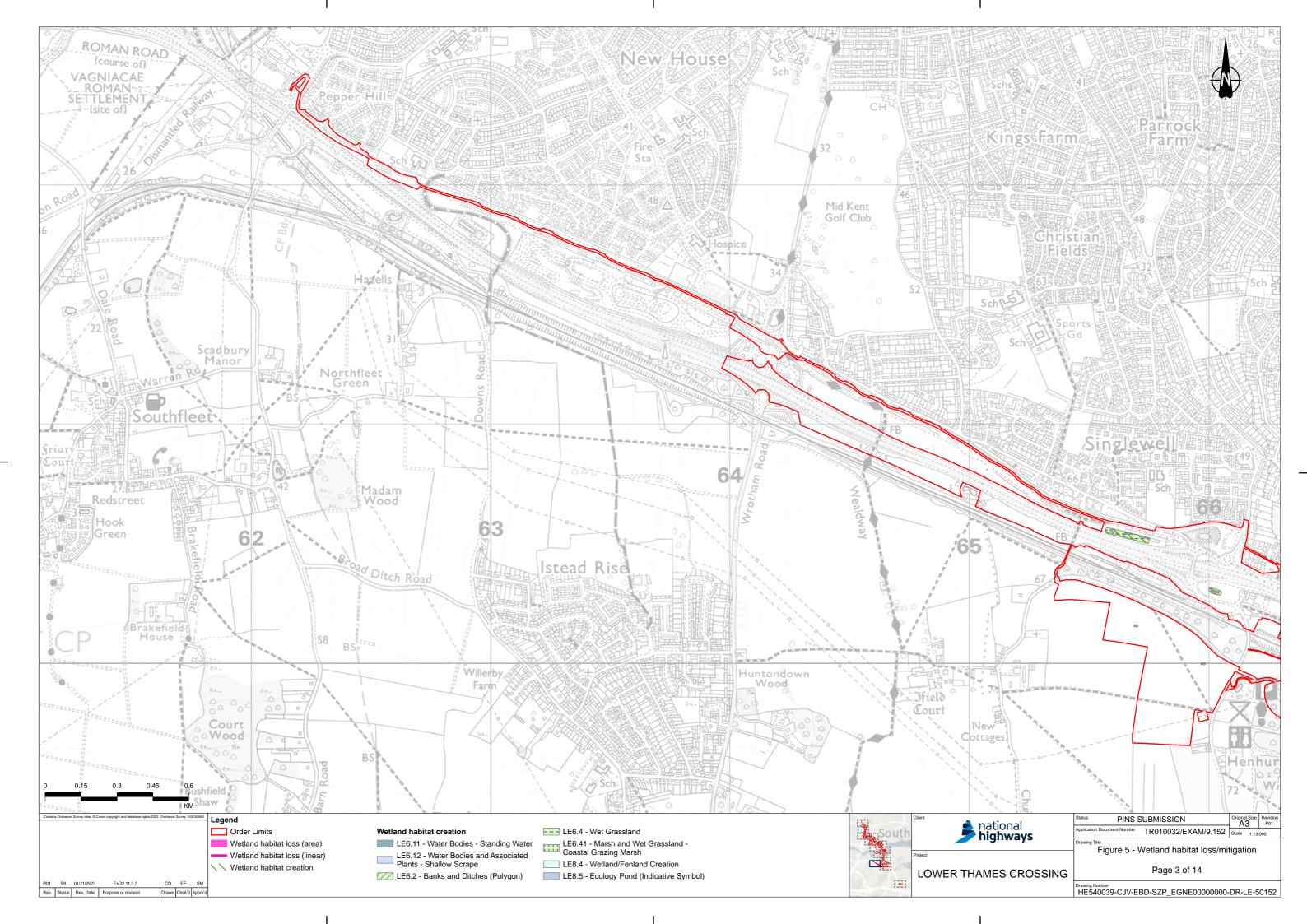
# **Appendices**

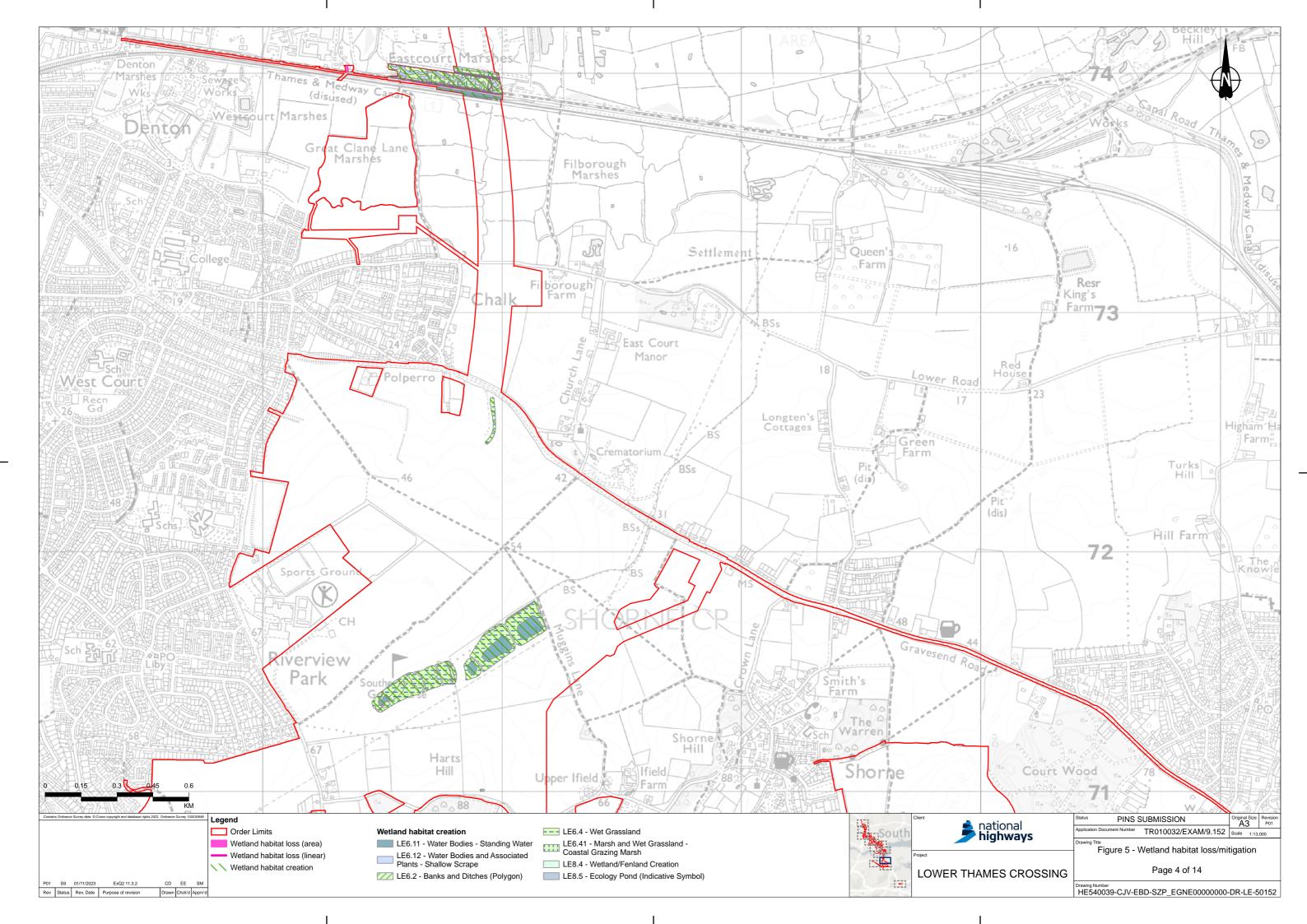
# Appendix A ExQ2\_Q11.3.2

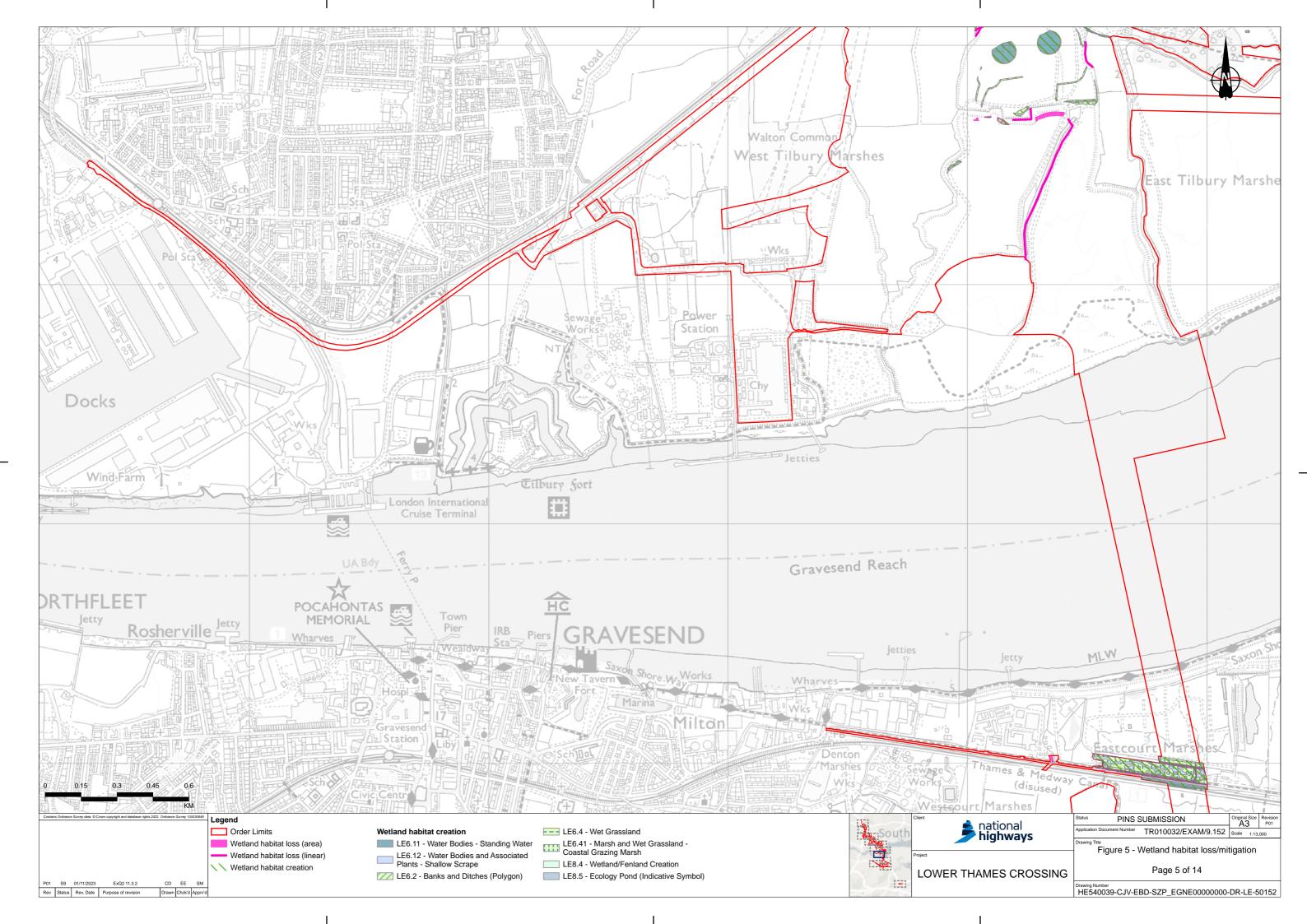
A.1.1 Figure 5 – Wetland habitat loss and mitigation

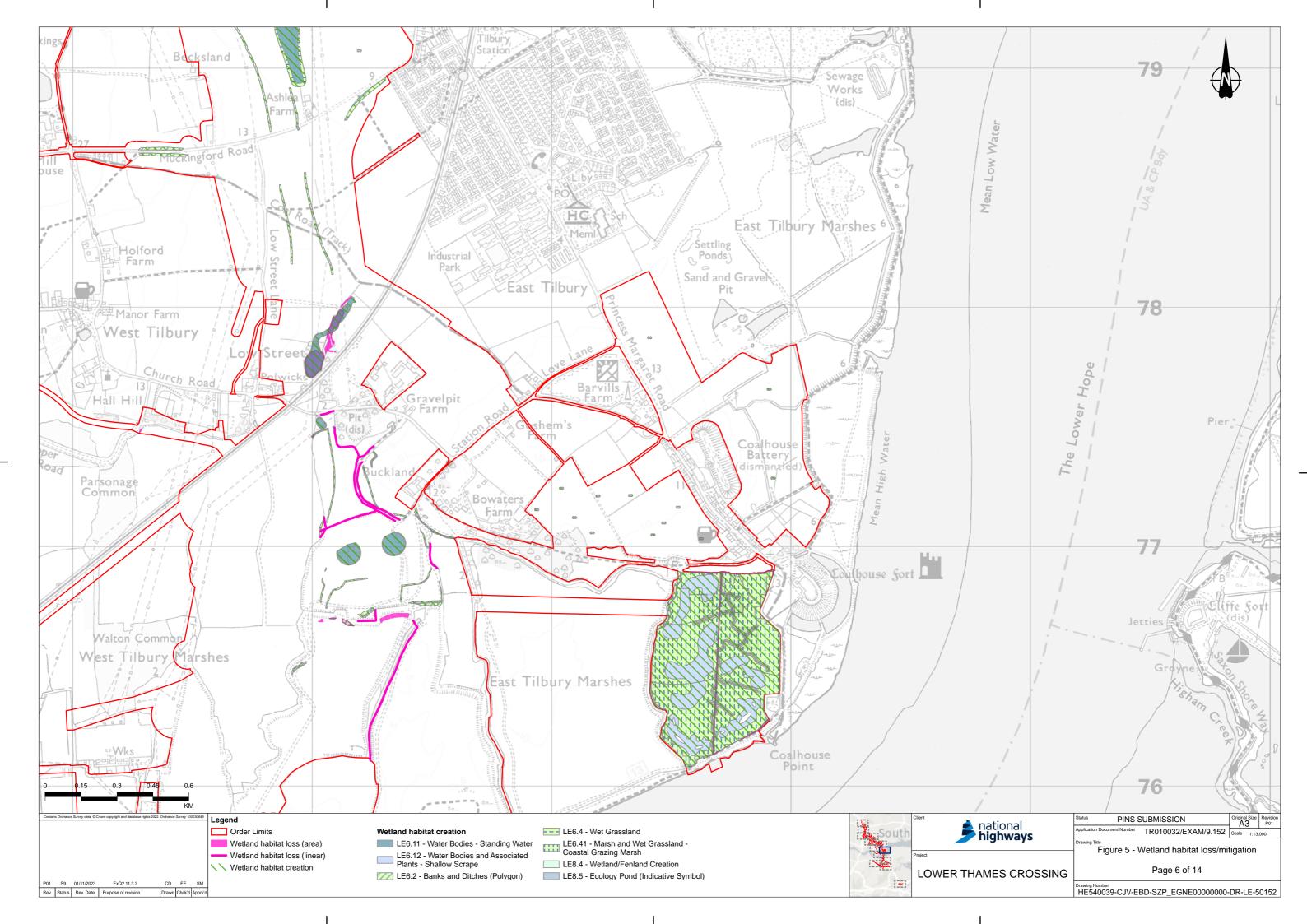


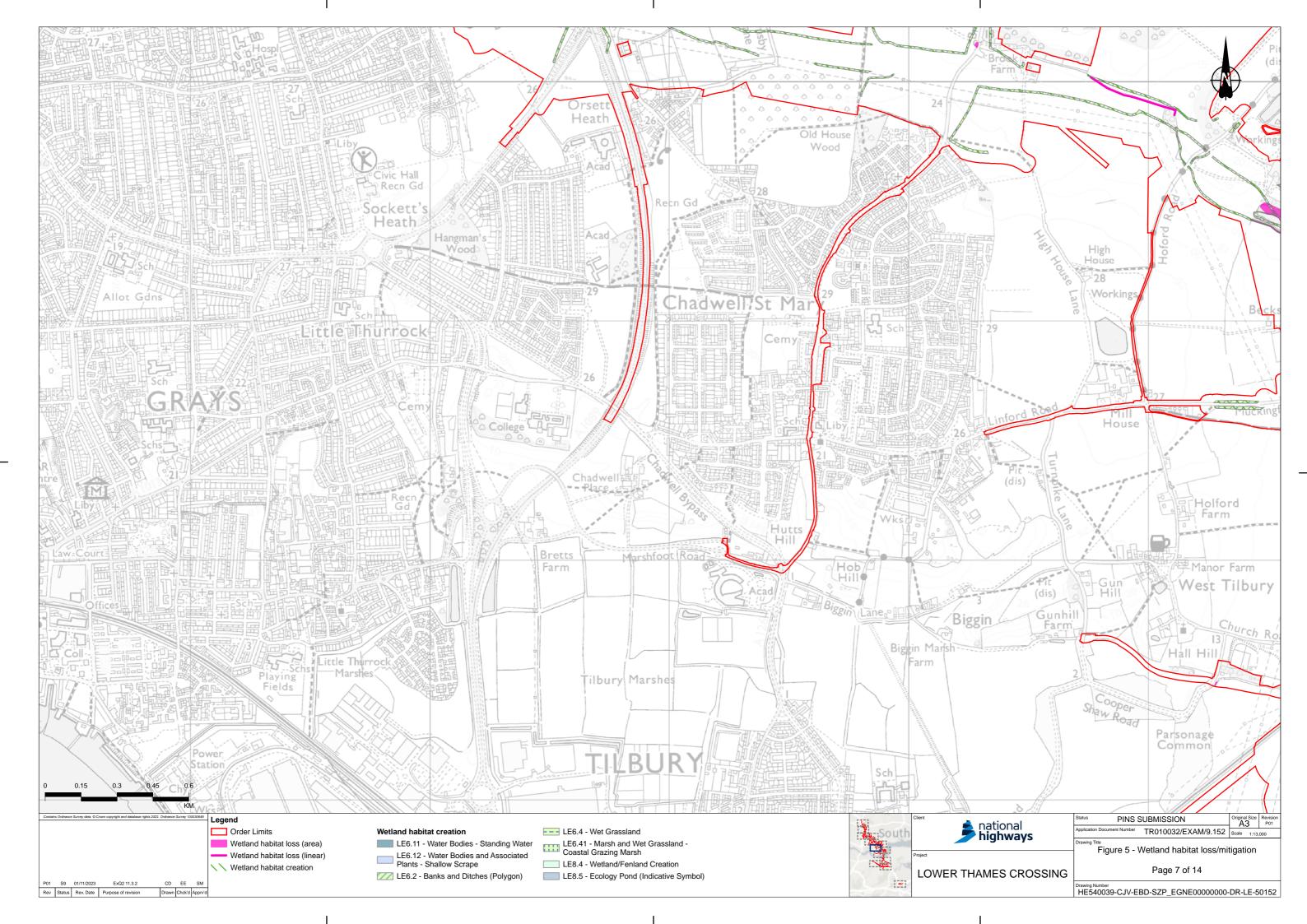


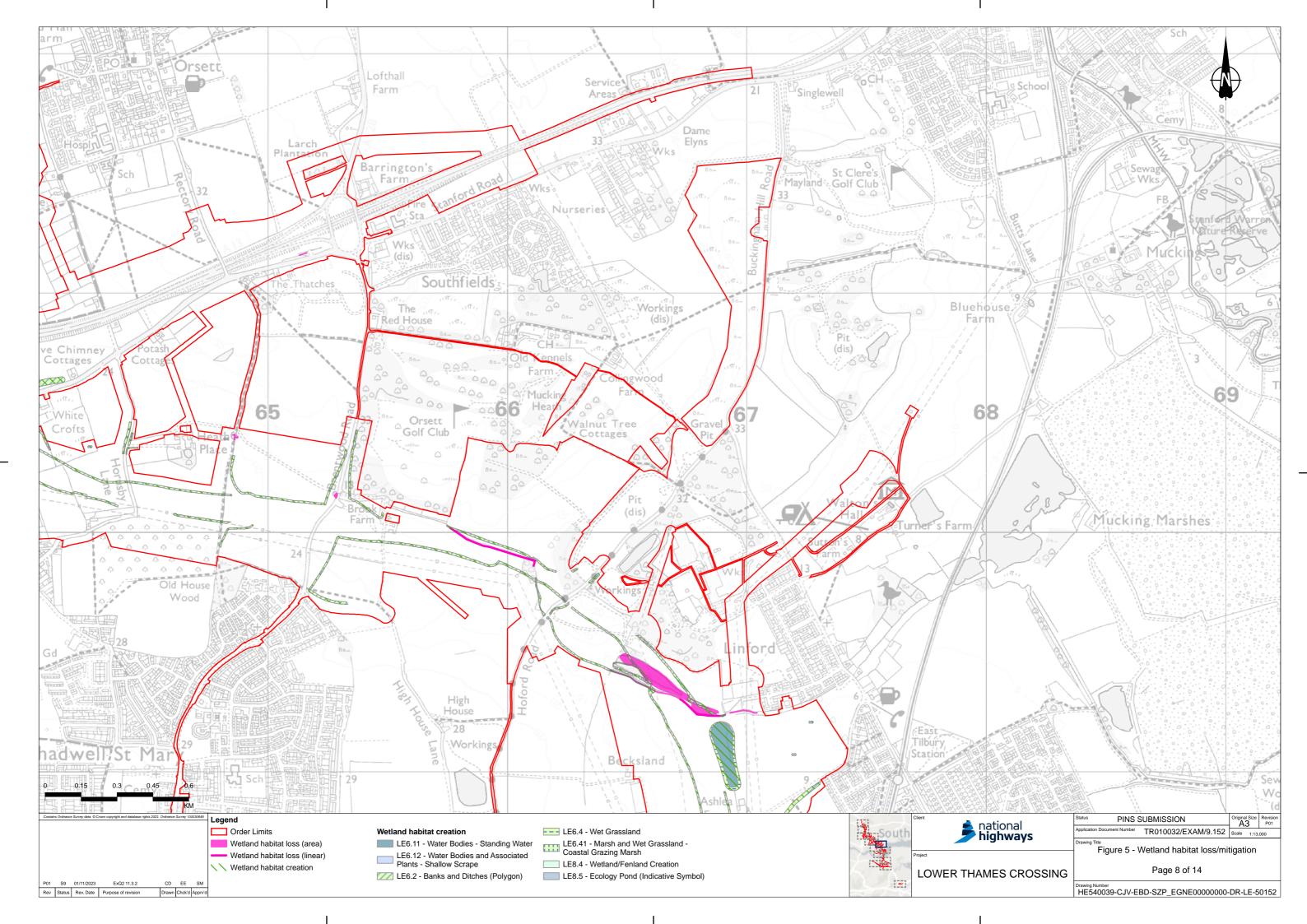


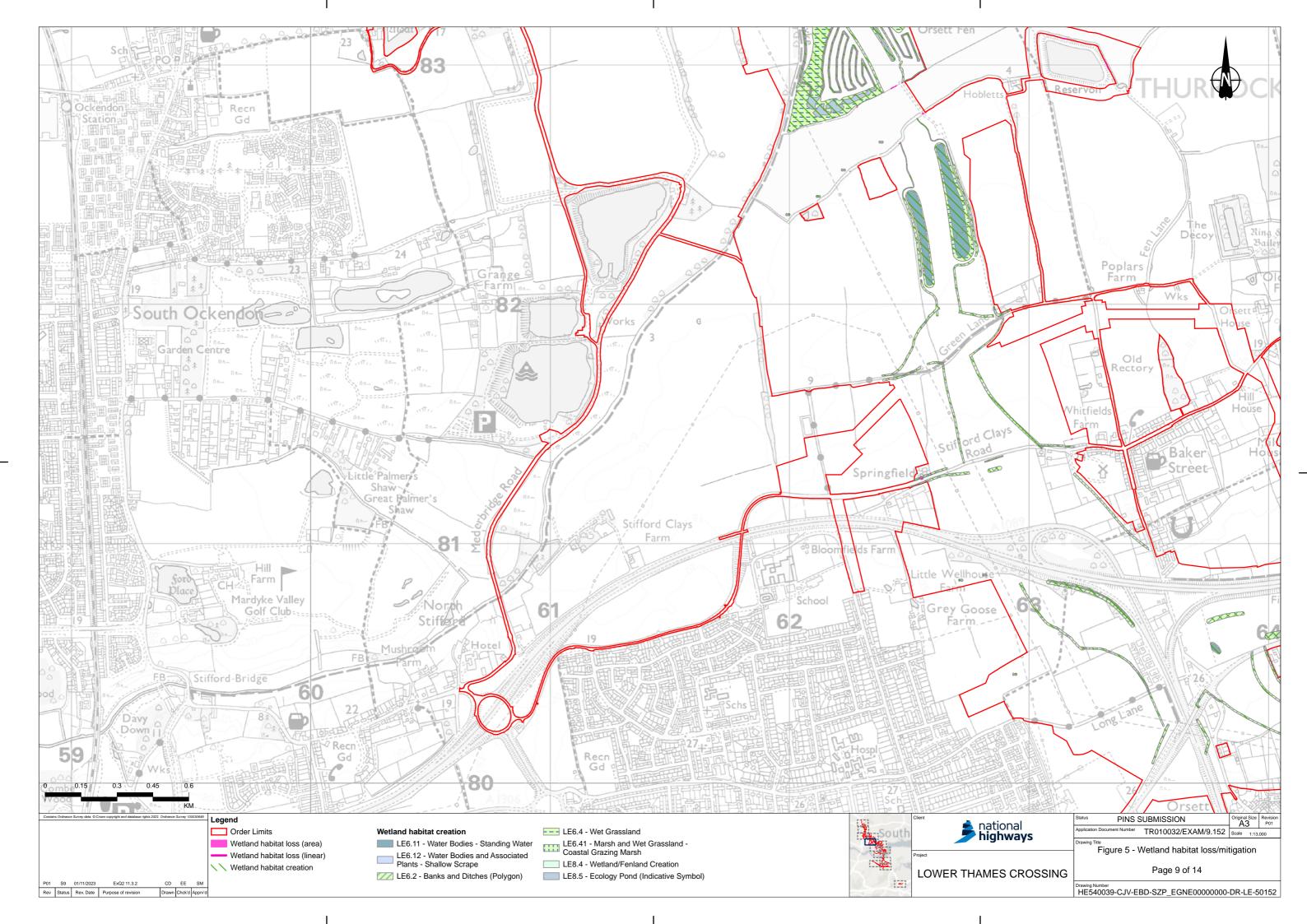


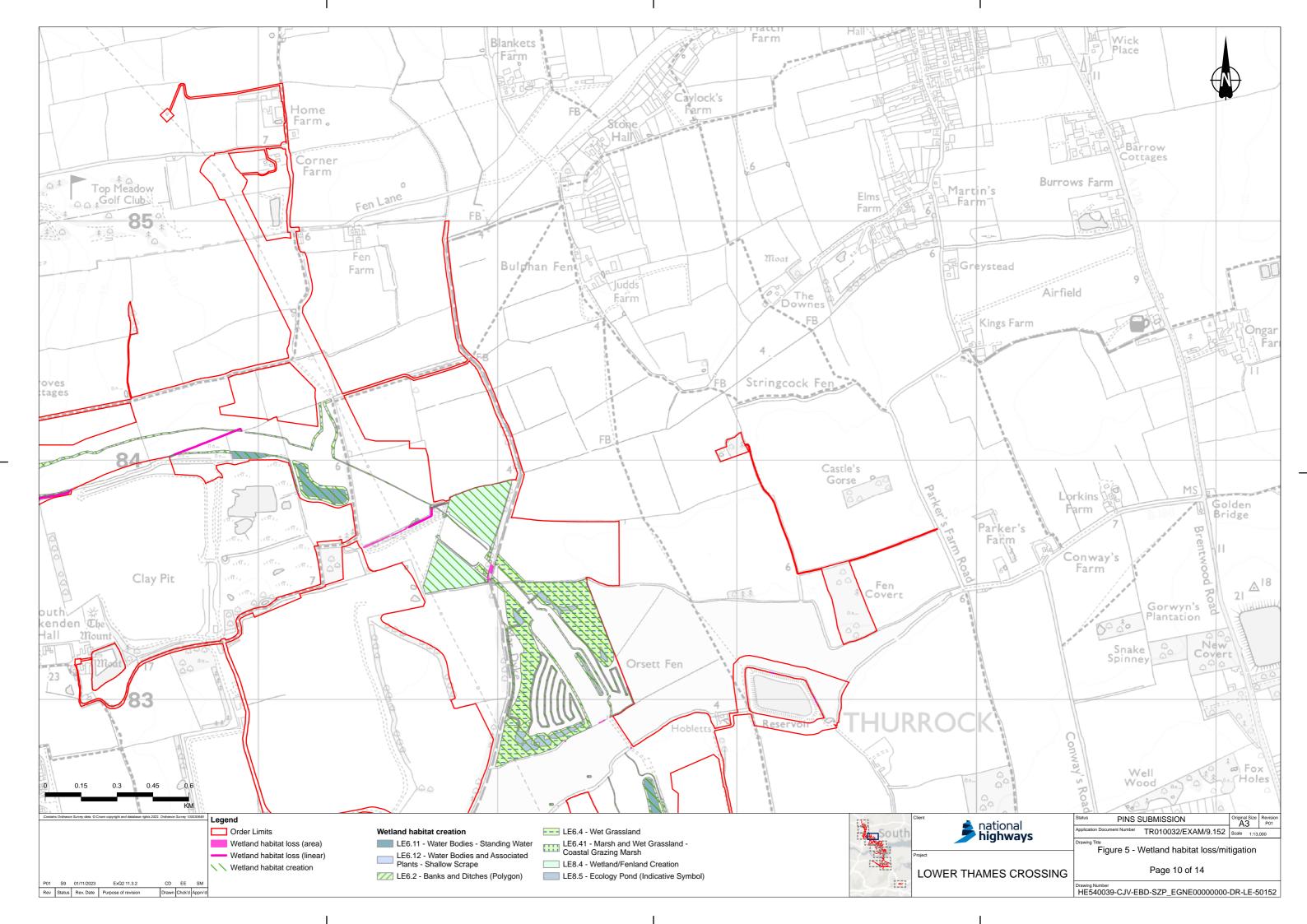


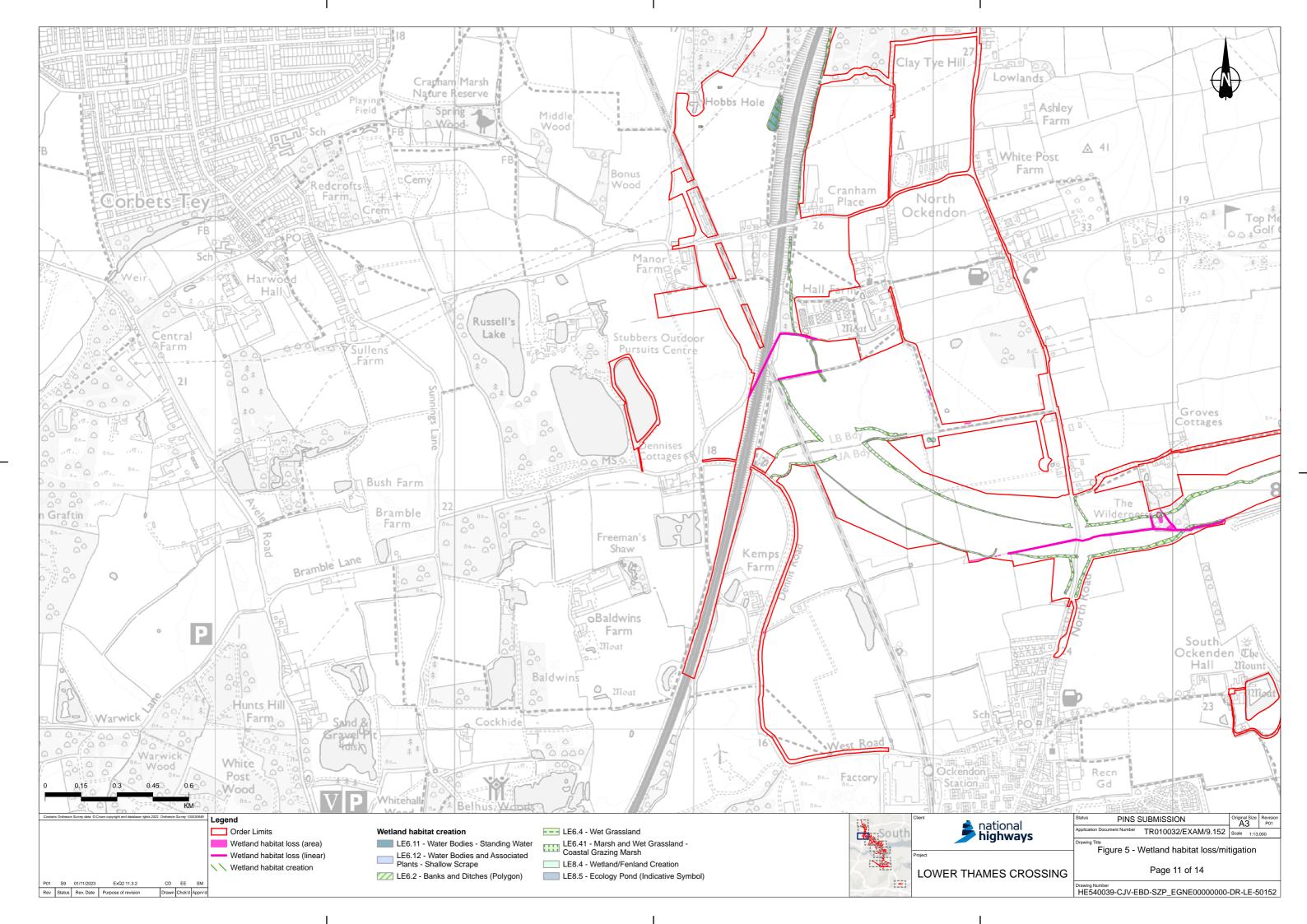


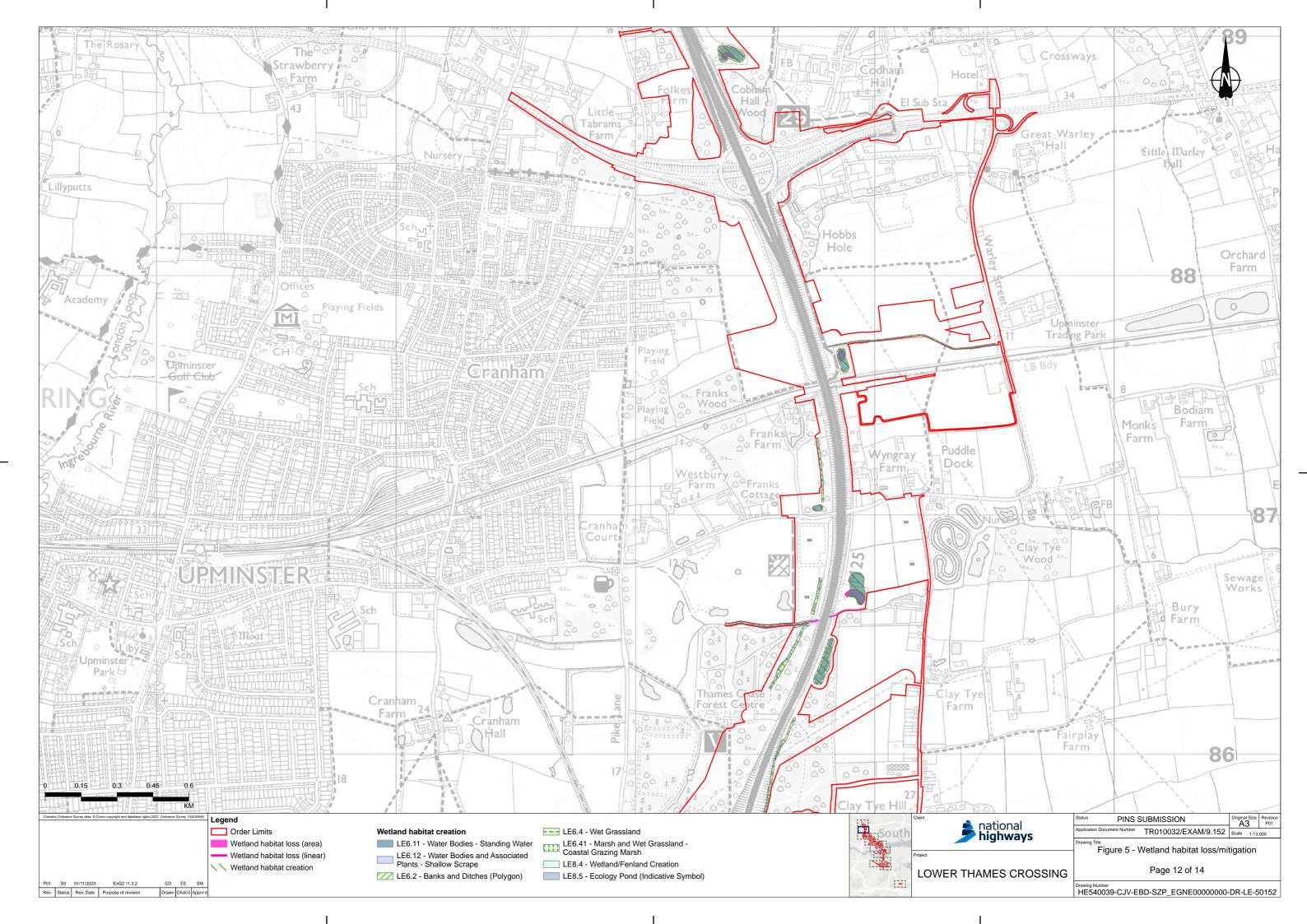


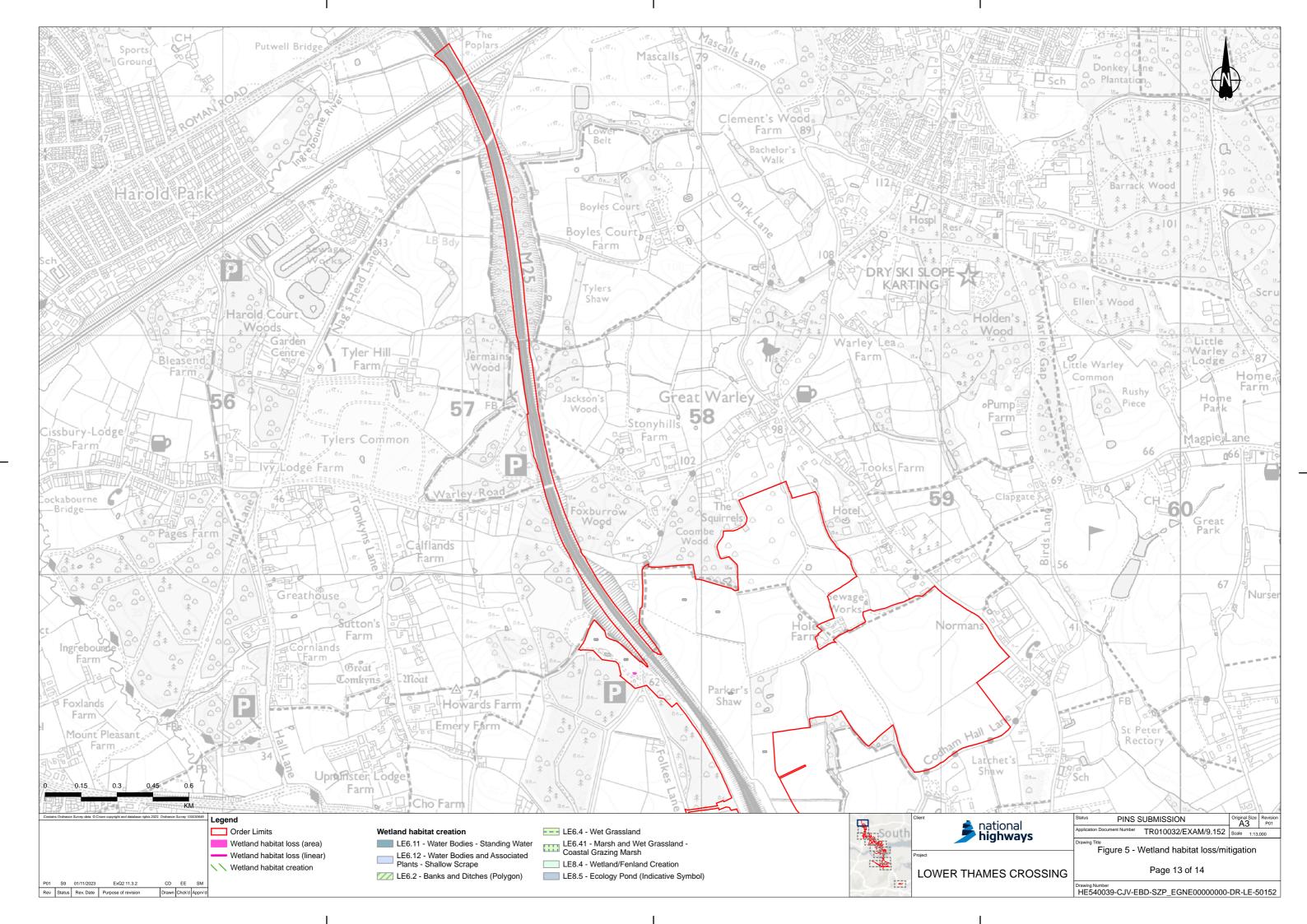












# Table 5 Wetland habitat losses and gains associated with the Project

Existing habitat	Importance	Habitat loss (ha)	New semi-natural habitat (from Environmental Masterplan)	Habitat permanent gain	Net permanent gain (gain-loss)
South of the River Thames					
Marshy grassland	County	0ha	Wet grassland (LE6.4)	8.37ha	8.37ha
Swamp and marginal vegetation	County	0.35ha	Reinstated only	0.17ha	-0.18ha
Standing water (ponds)	County	0.36ha	Water bodies – standing water	3.54ha	3.18ha
Standing water (lakes and reservoirs)	County	0ha	(LE6.11), ecology pond (LE8.5)		
Standing water (canal)	County	0km	Reinstated only	0km	0km
Standing water (ditches)	Local	0.83km	Reinstated only	0.83km	0km
Running water (rivers and streams)	County	0km	Reinstated only	0km	0km
North of the River Thames					
Marshy grassland	Local	0.05ha	Wet grassland (LE6.4)	35.16ha	35.11ha
Swamp	County (BAP habitat)	0.68ha	Wetland/fenland creation (LE8.4)	0.14ha	-1.07ha
	Local	0.53ha			
Standing water (ponds)	County	1.89ha	Water bodies – standing water	23.88ha	20.95ha
Standing water (lakes and reservoirs)	County	1.04ha	(LE6.11), ecology pond (LE8.5)		
Standing water (ditches)	Local	19.67kn	Banks and ditches (LE6.2)	41.4km	21.73km
Running water (rivers and streams)	County	2.89km	Reinstated only	3.69km	0.8km

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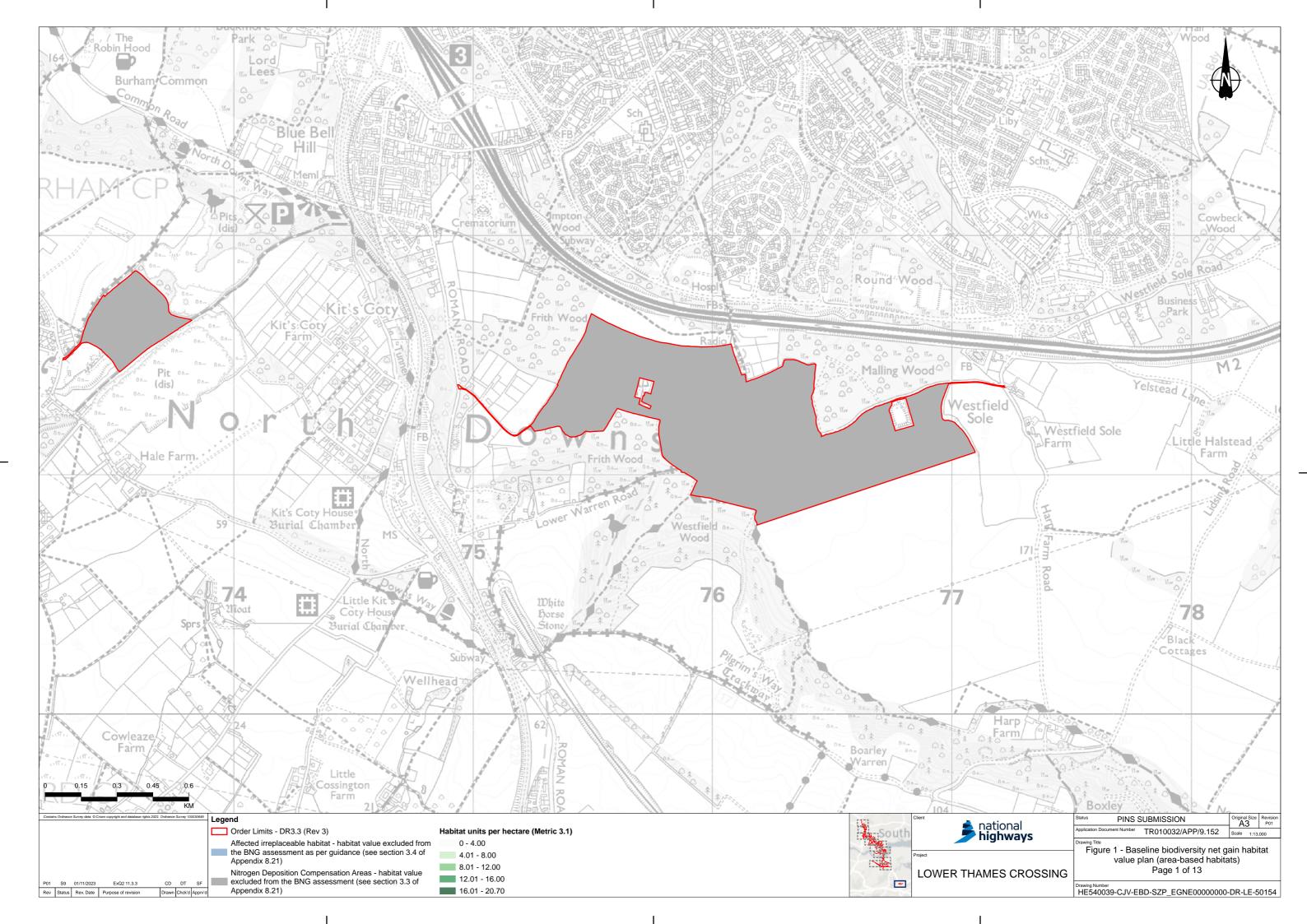
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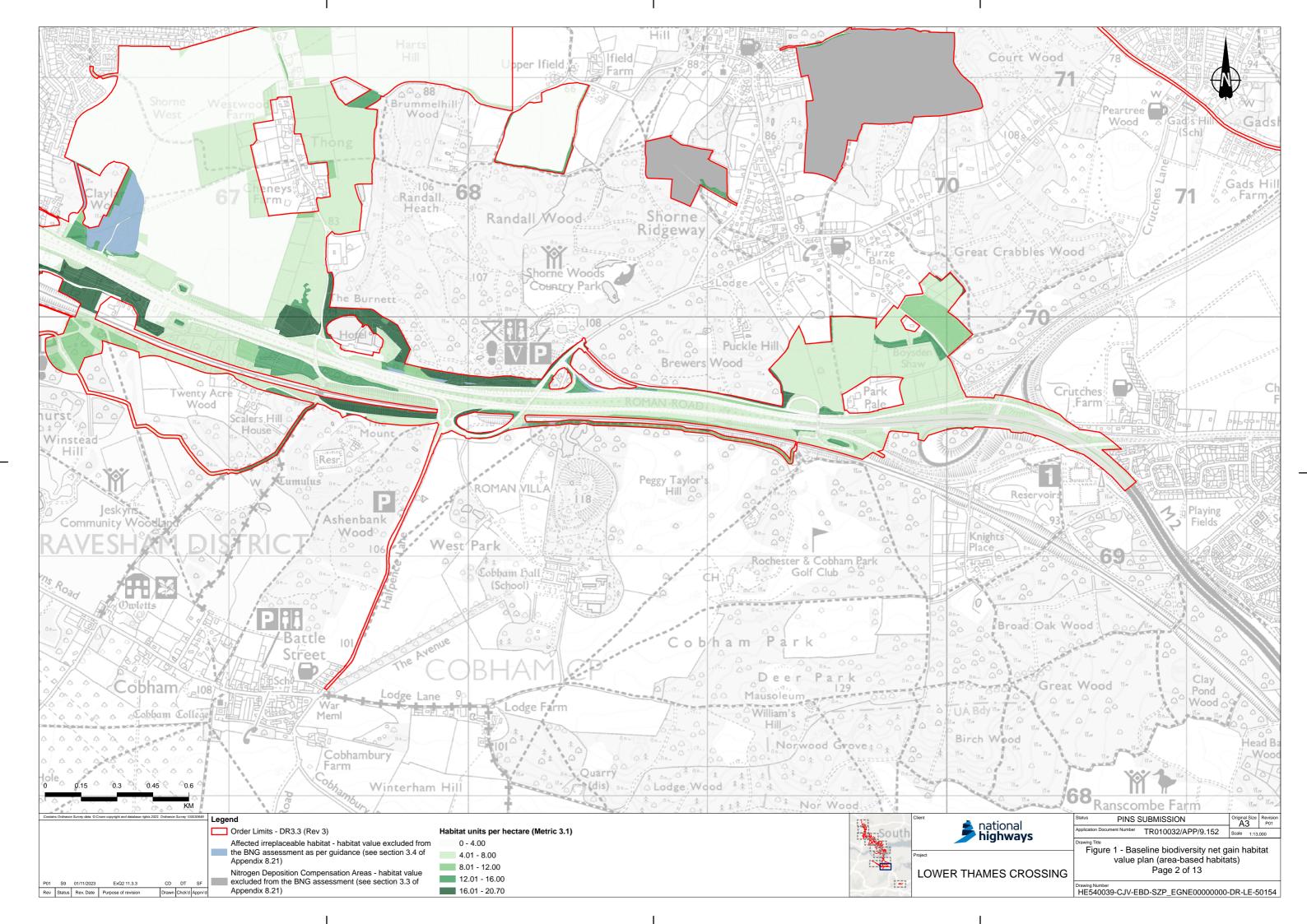
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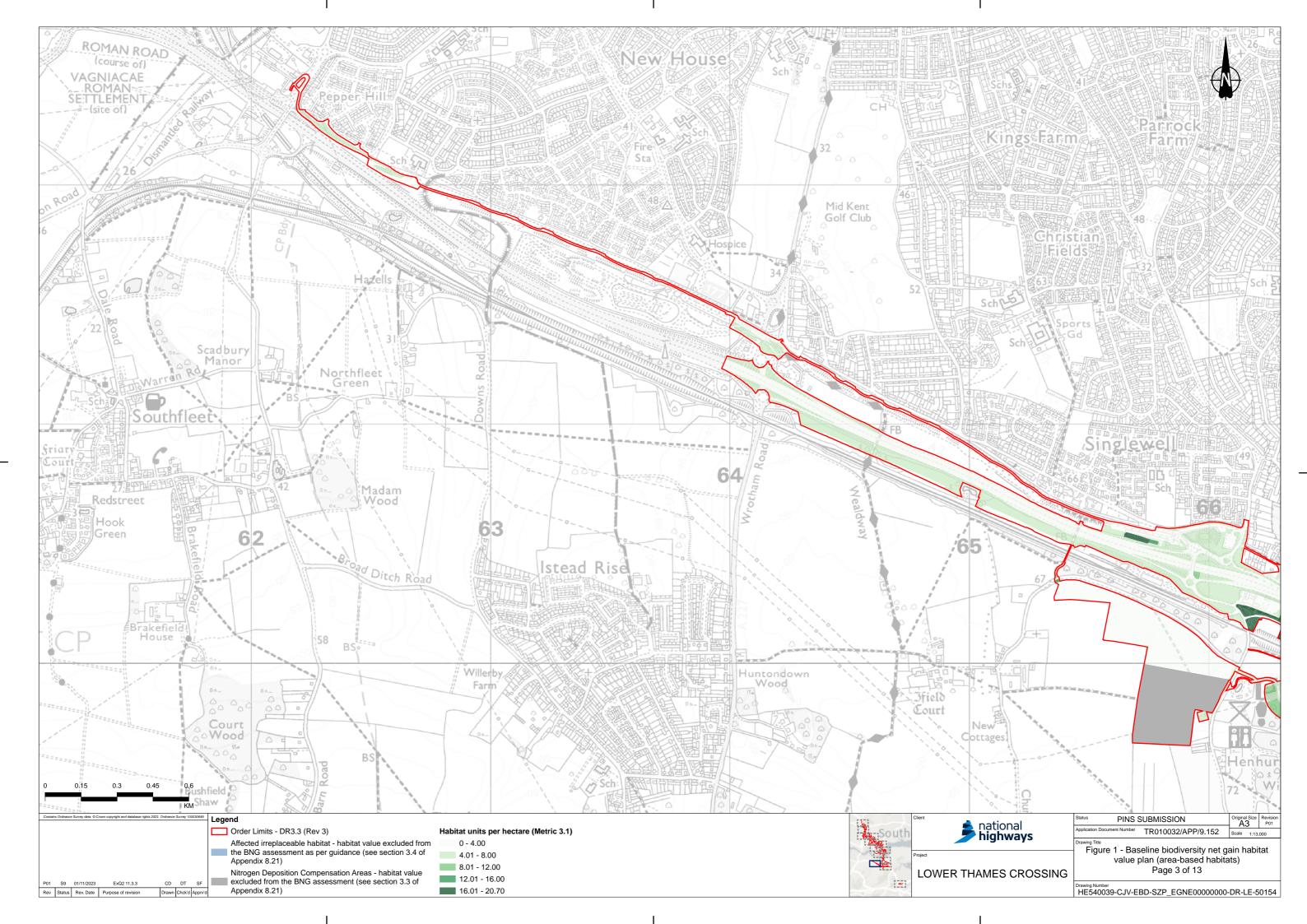
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	Figure 5 - Wetland habitat loss/mitigation					
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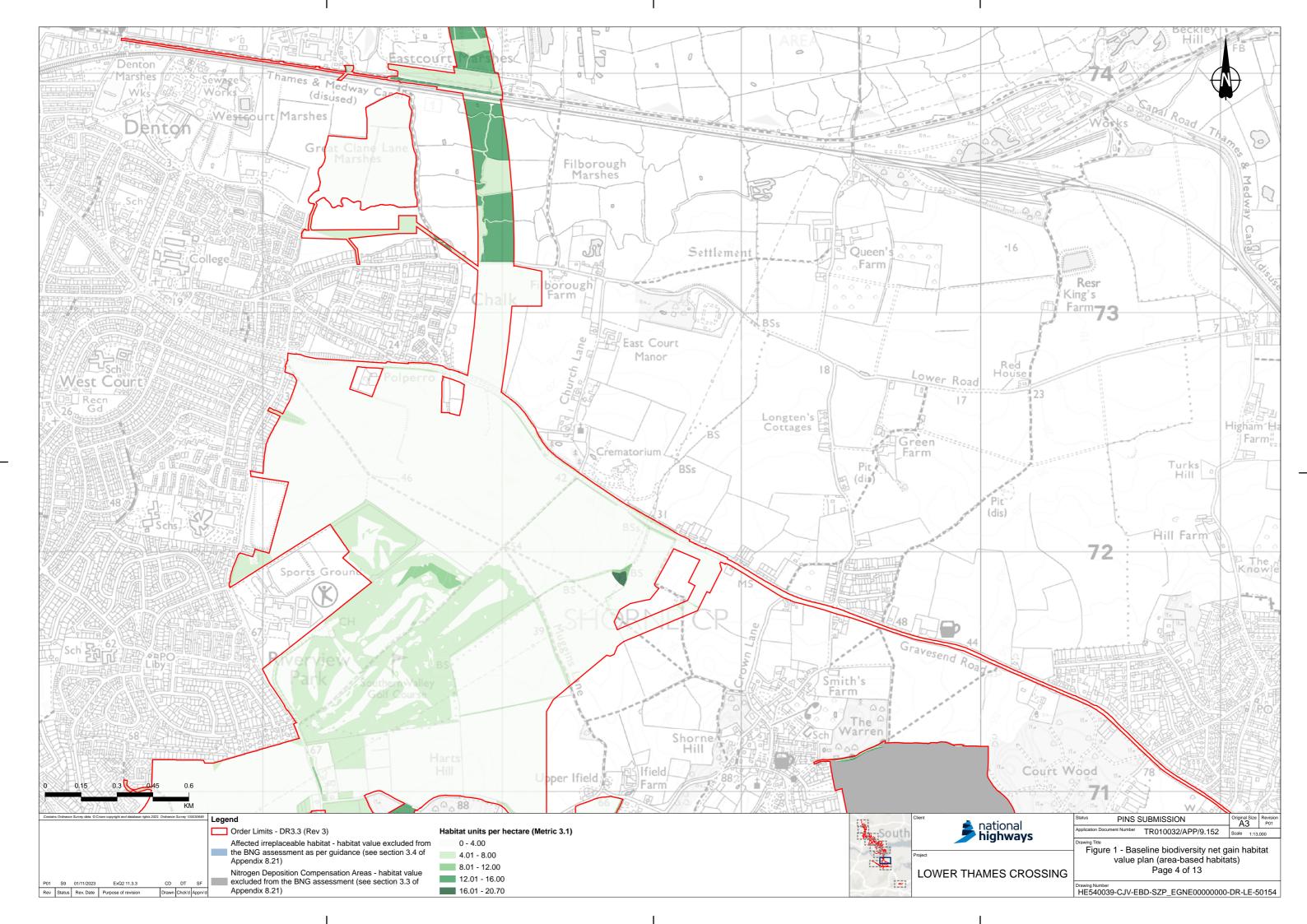
### **Appendix B ExQ2\_Q11.3.3**

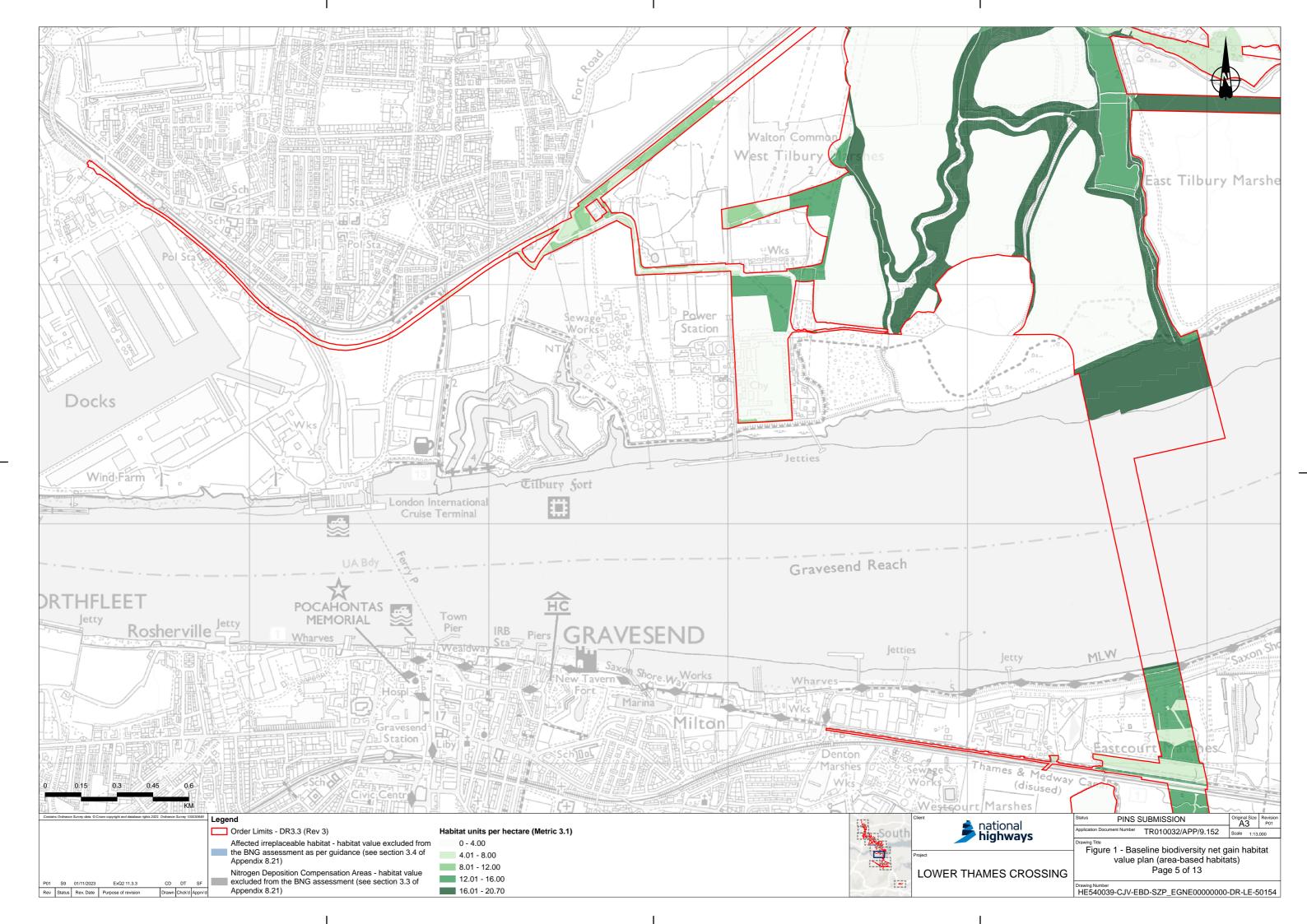
- B.1.1 Figure 1 Baseline biodiversity net gain habitat value plan (area-based habitats)
- B.1.2 Figure 2 Baseline biodiversity net gain habitat value plan (linear habitats)
- B.1.3 Figure 3 Biodiversity net gain assessment impact plan
- B.1.4 Figure 4 Post-development biodiversity net gain habitat value plan (areabased habitats)
- B.1.5 Figure 5 Post-development biodiversity net gain habitat value plan (linear habitats)

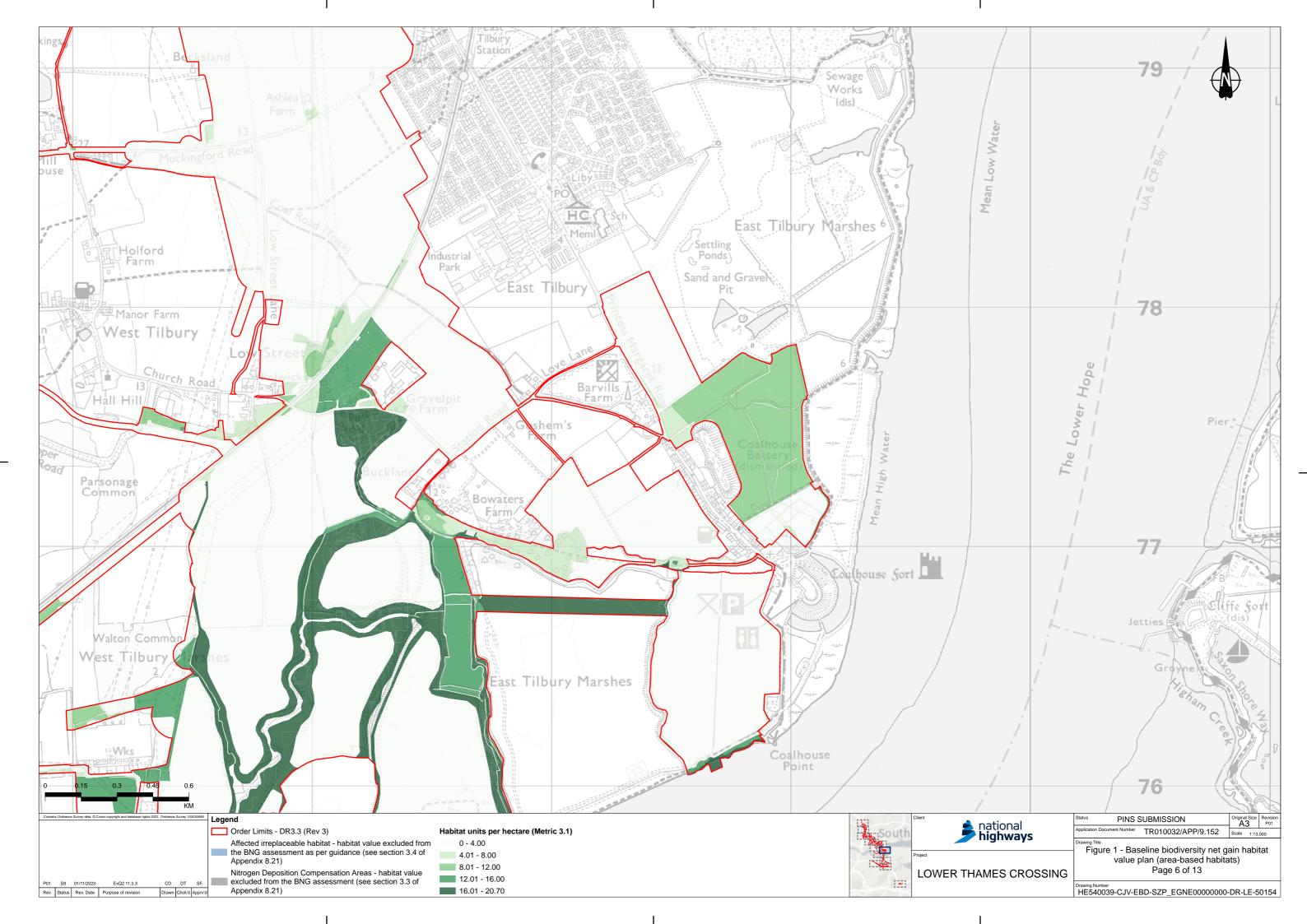


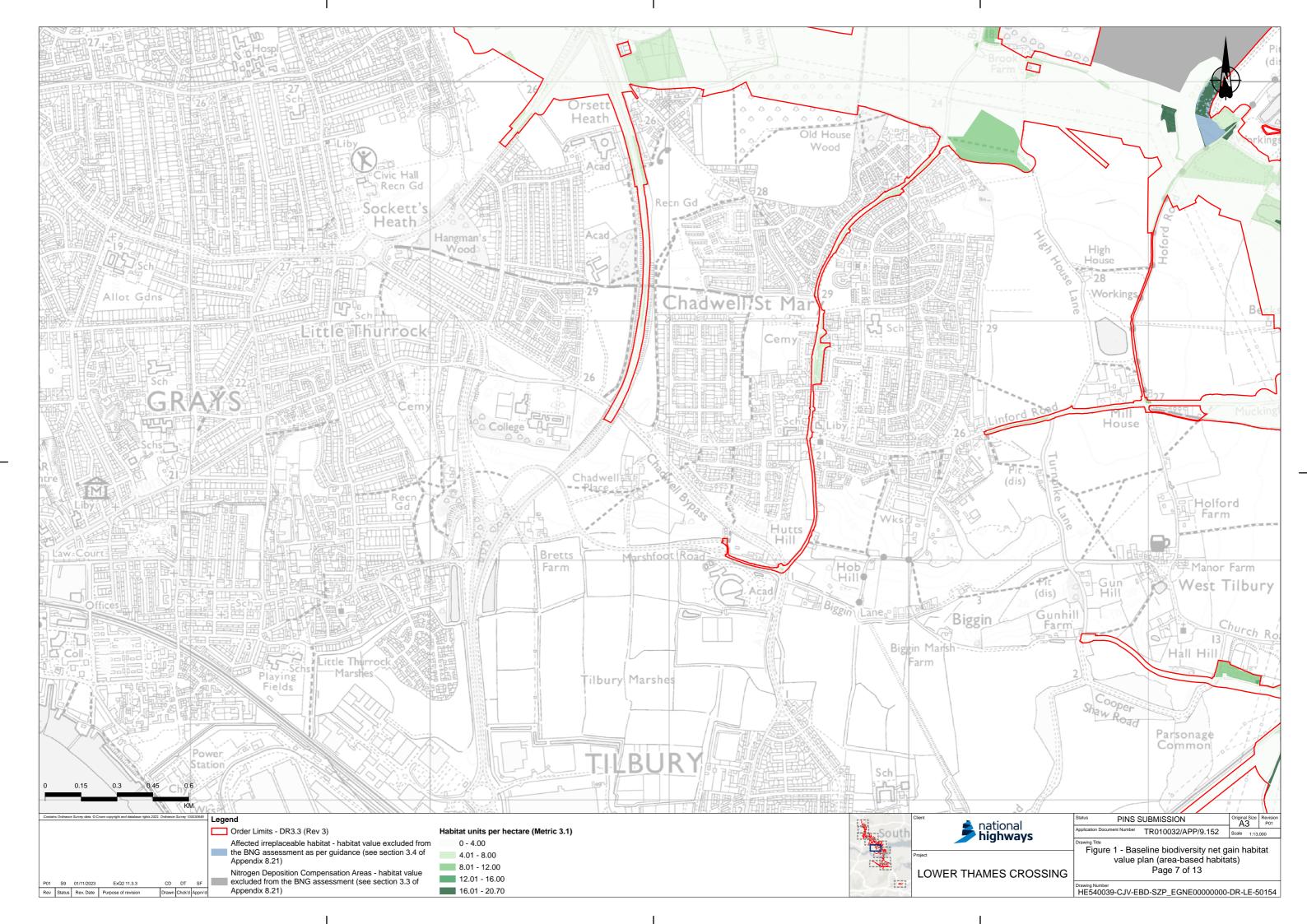


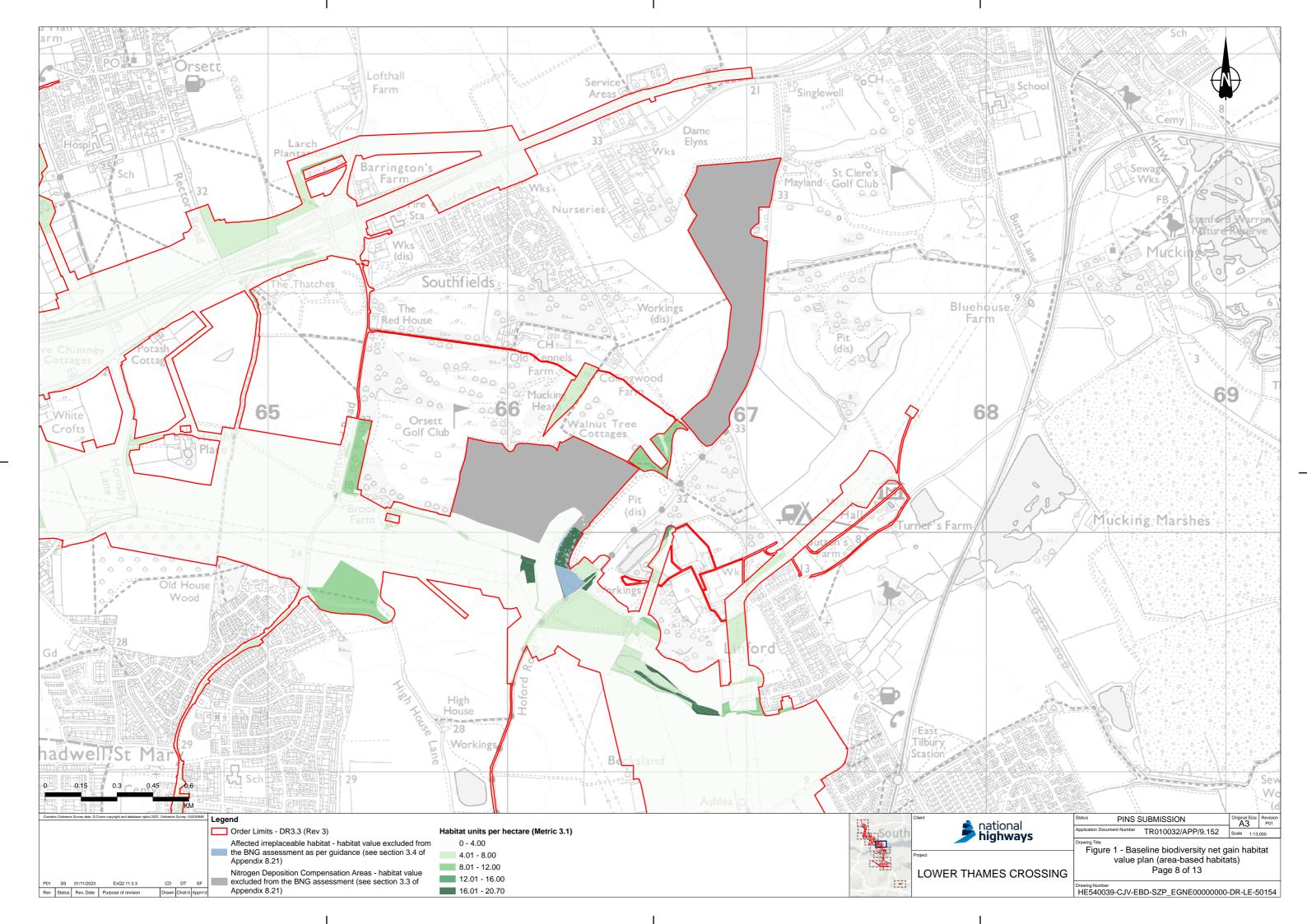


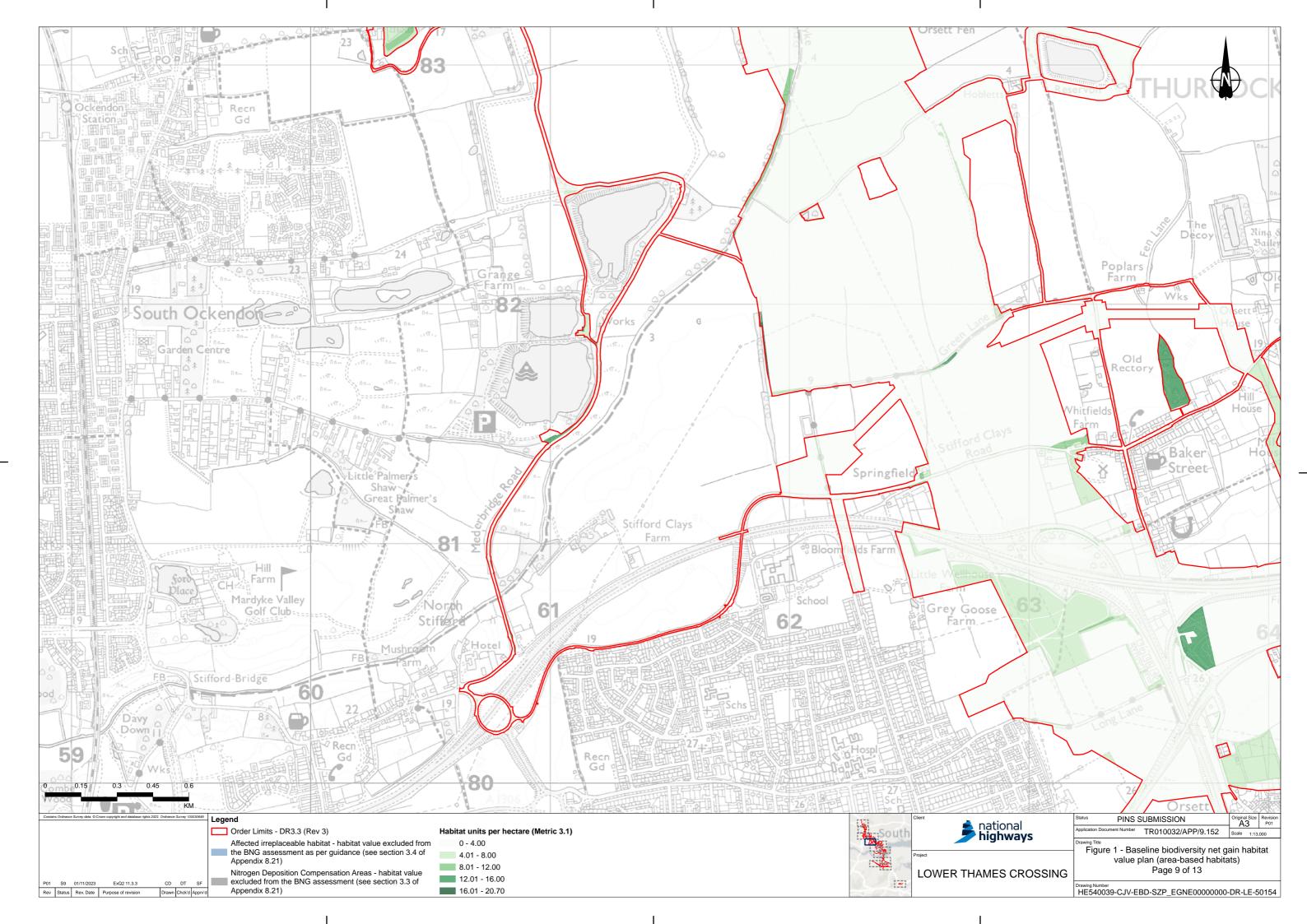


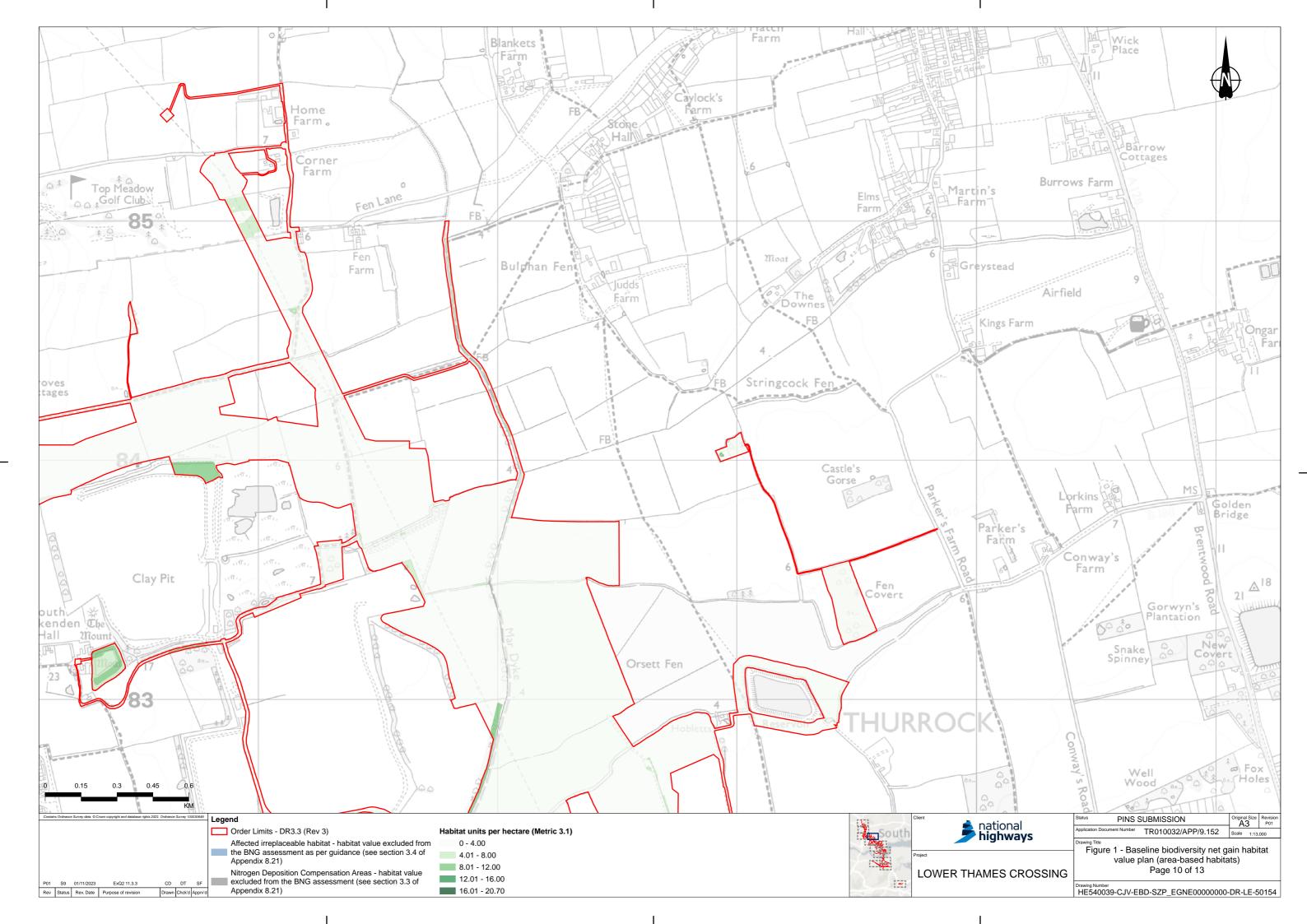


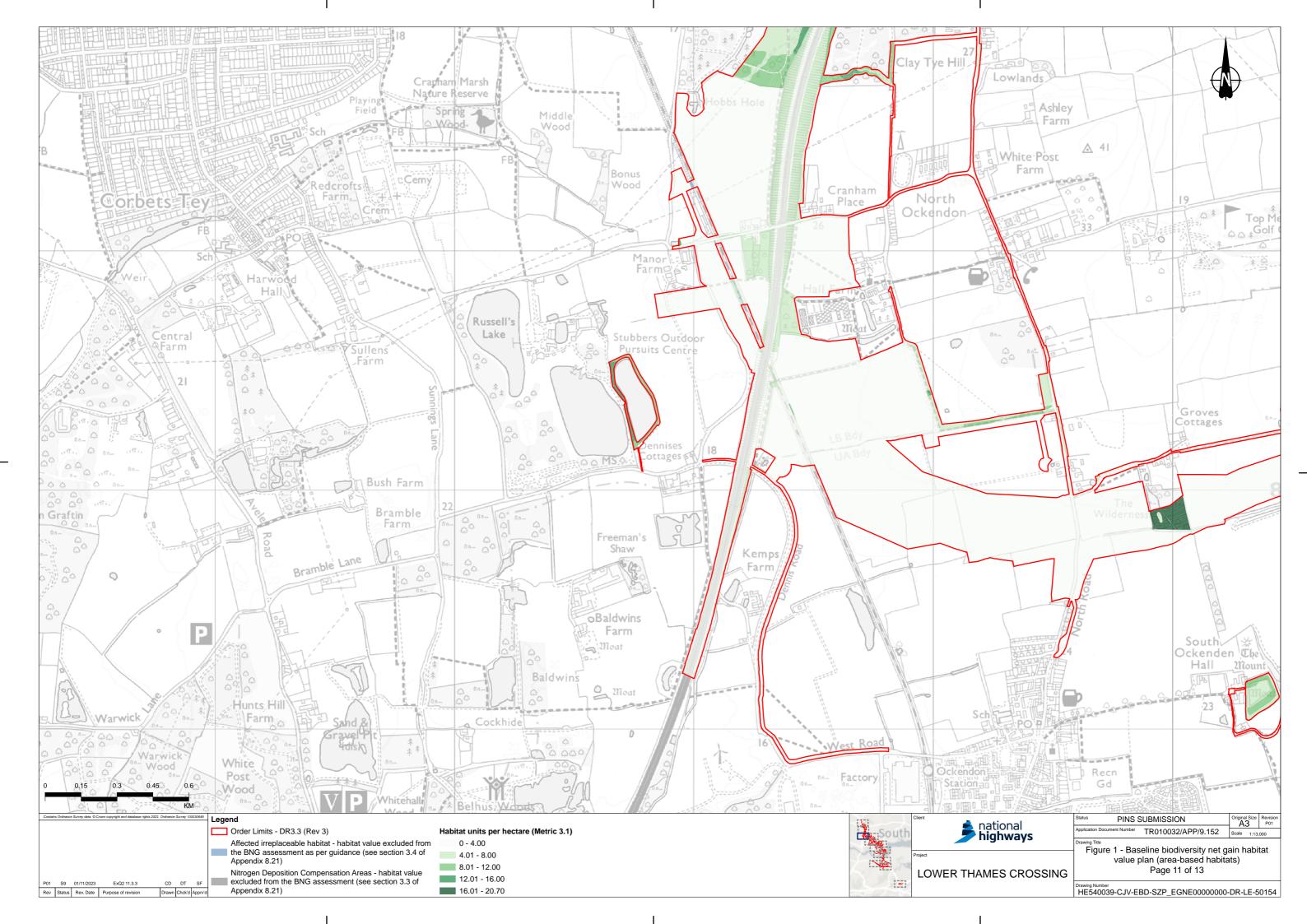


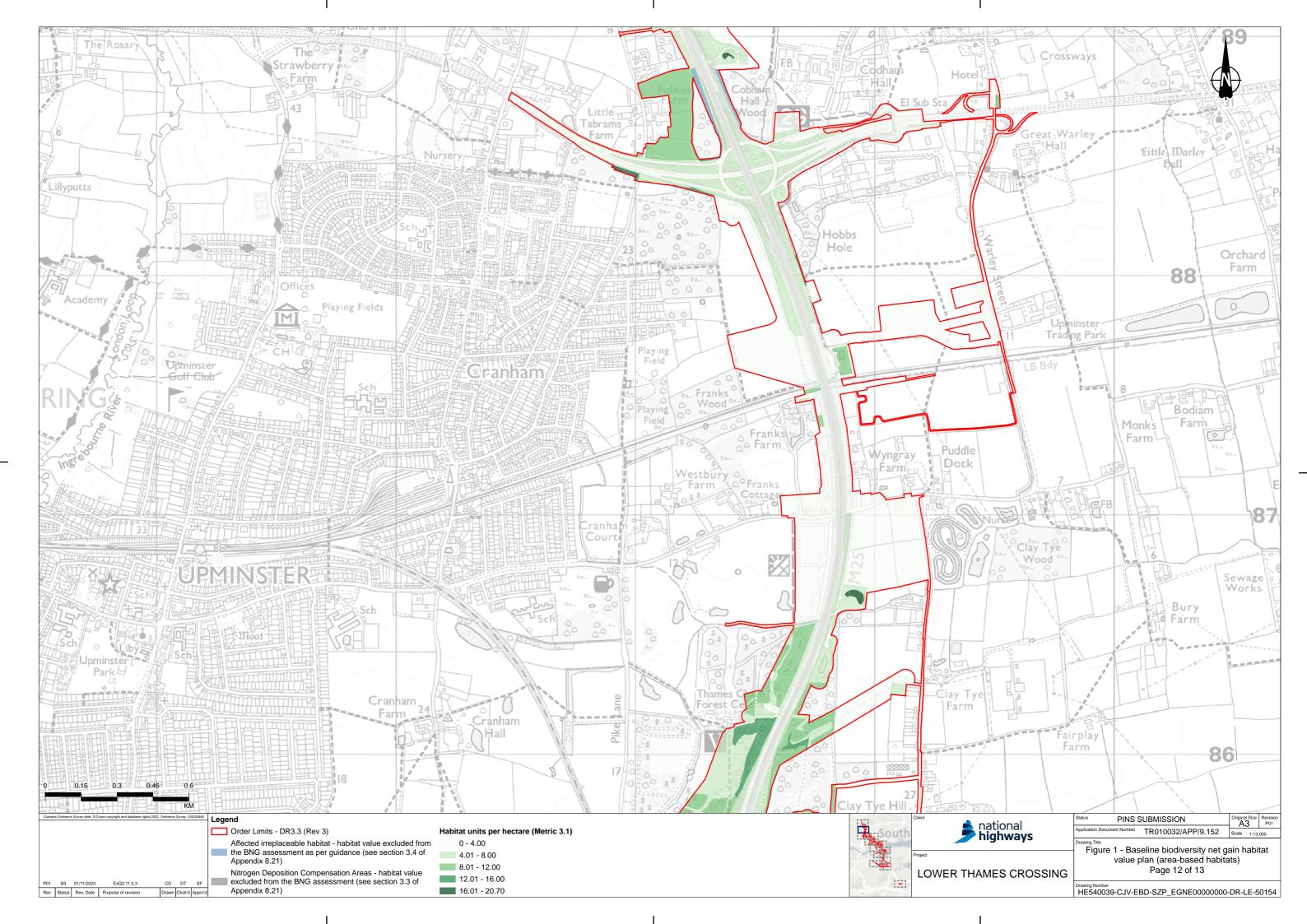


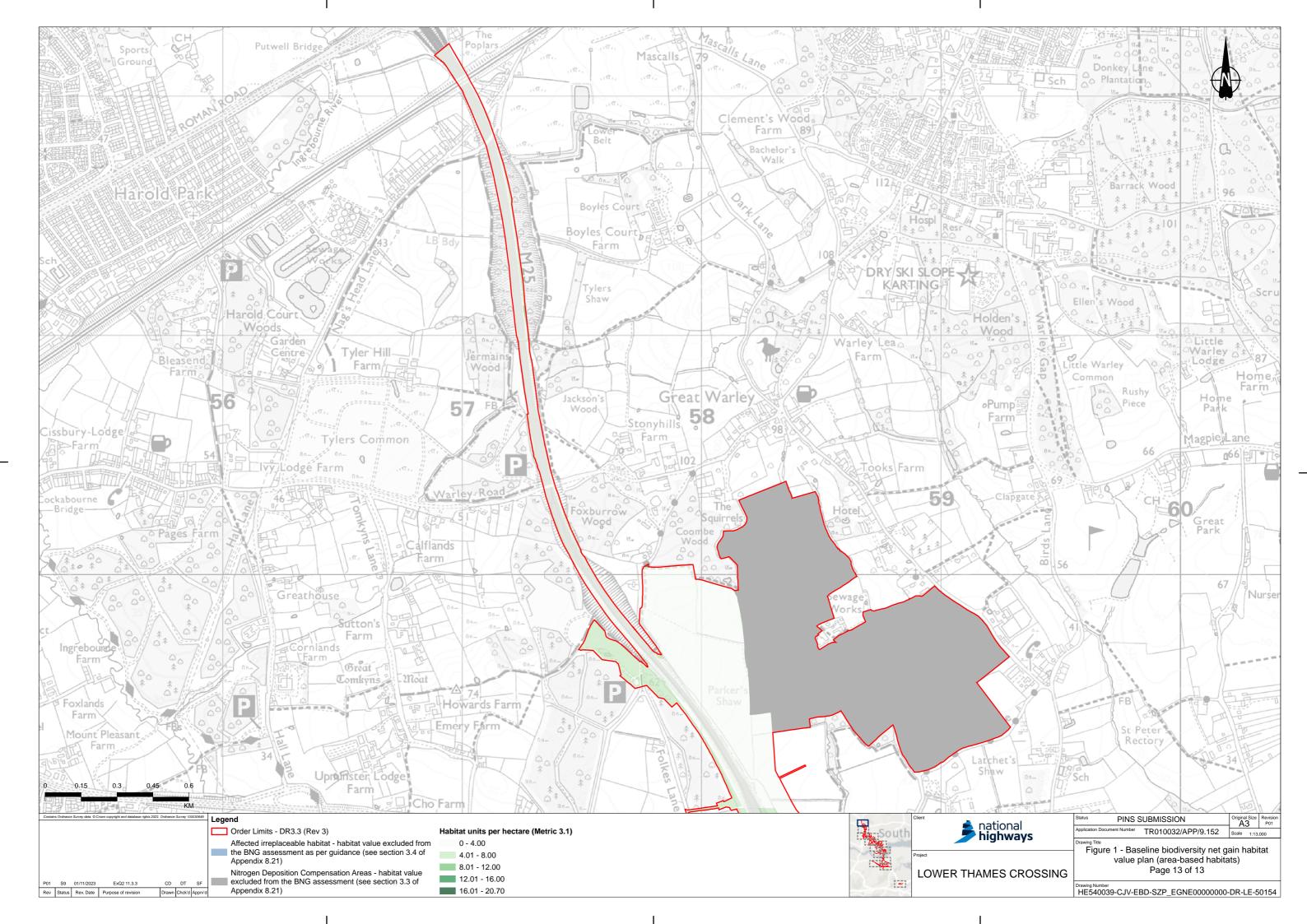












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