

## **Great North Road Solar and Biodiversity Park**

Environmental Statement Volume 3, Chapter 12 Noise and Vibration Impact Assessment Figures

Document reference – EN010162/APP/6.3.12A

Revision number 2

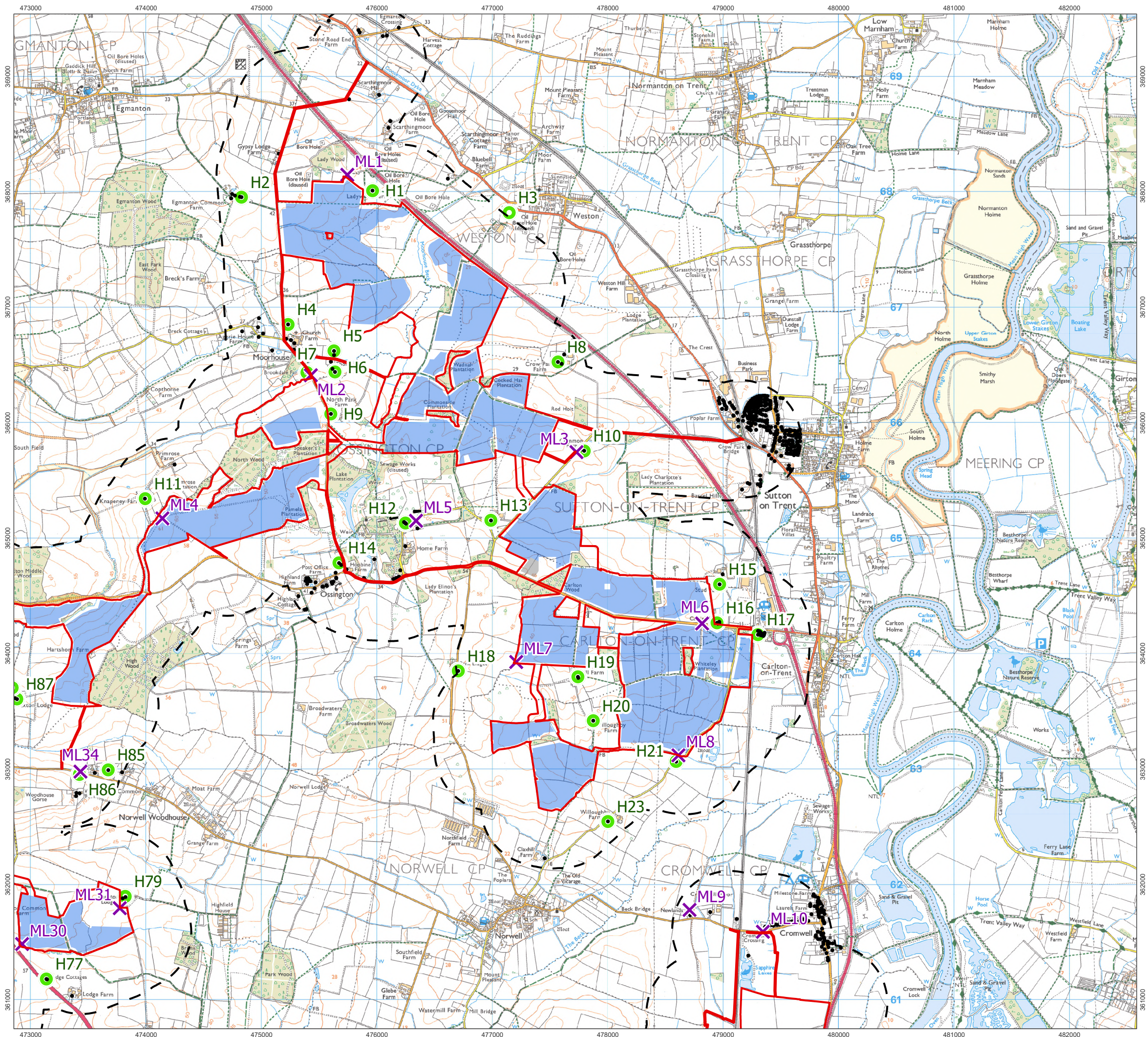
August 2025

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, APFP Regulation 5(2)(a)

### 6.3.12 ENVIRONMENTAL STATEMENT VOLUME 3, CHAPTER 12 NOISE AND VIBRATION IMPACT ASSESSMENT FIGURES

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01	Figure 12.2 Assessment of Noise during Hardstanding Construction Activities
01	Figure 12.3 Assessment of Noise during PV Module Construction Activities
01	Figure 12.4 Assessment of Noise during Installation of Substations and BESS
01	Figure 12.5 Assessment of Noise during Installation of Cable Route
01	Figure 12.6 Assessment of Vibration Effects





- Order Limits
  - 500 m Operational Noise Study Area
  - Noise Monitoring Location
  - Assessment Location
  - Noise Sensitive Receptors within 500 m of the Order Limits
- Works Numbers
- Works No. 1 Solar PV
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation



1:32,000 Scale @ A3

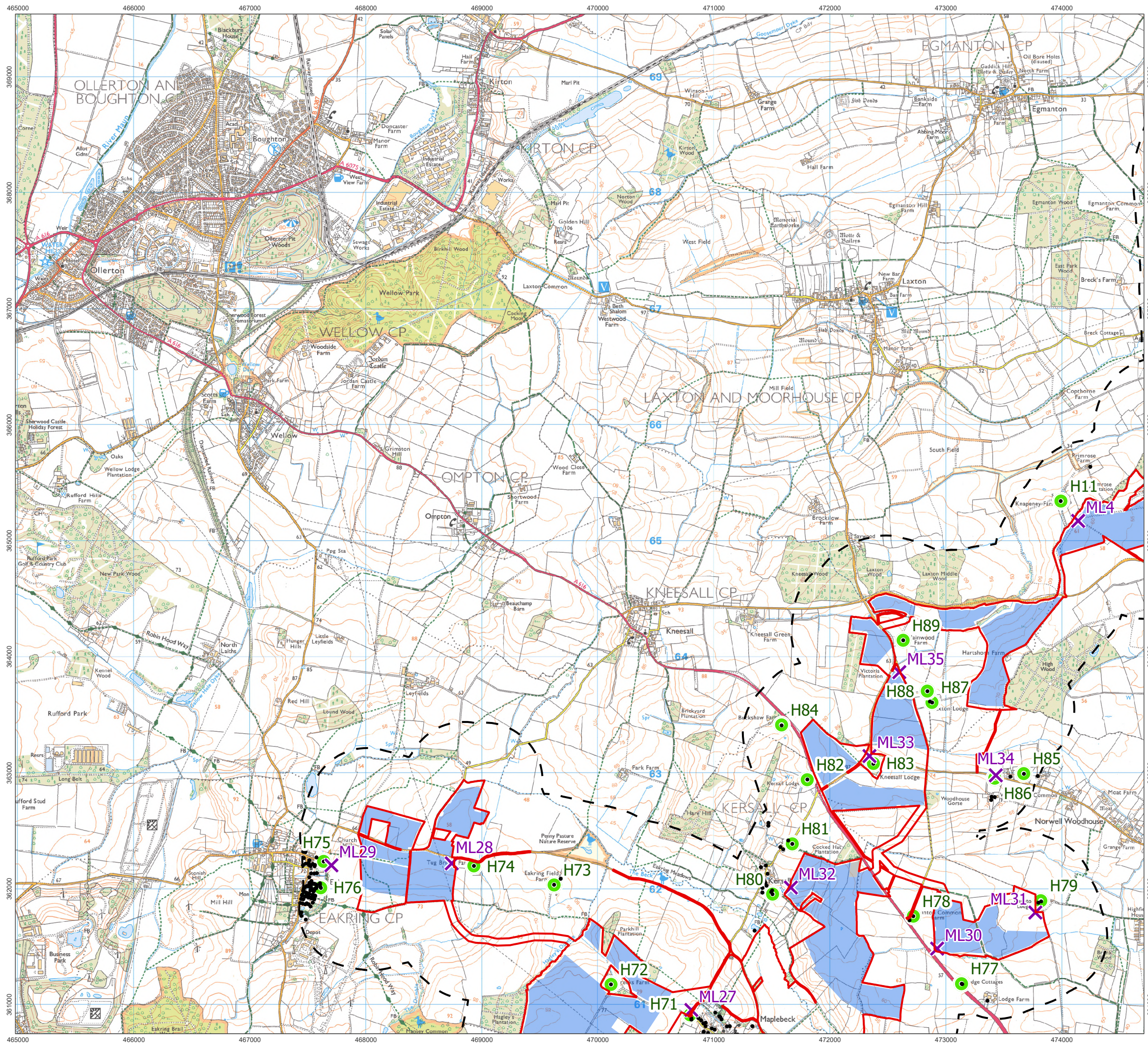
0 0.25 0.5 1 km

Ref: 026-ES-12.1 Date: 26/06/2025

Noise Sensitive Receptors and Monitoring Locations  
Figure 12.1NE

Great North Road Solar and Biodiversity Park  
Environmental Statement

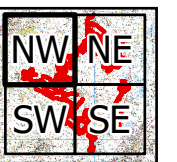




- Order Limits
- 500 m Operational Noise Study Area
- Noise Monitoring Location
- Assessment Location
- Noise Sensitive Receptors within 500 m of the Order Limits

#### Works Numbers

- Works No. 1 Solar PV
- Works No. 4 Substations
- Works No. 5A BESS
- Works No. 5B 400kV Substation



1:32,000 Scale @ A3

0 0.25 0.5 1 km

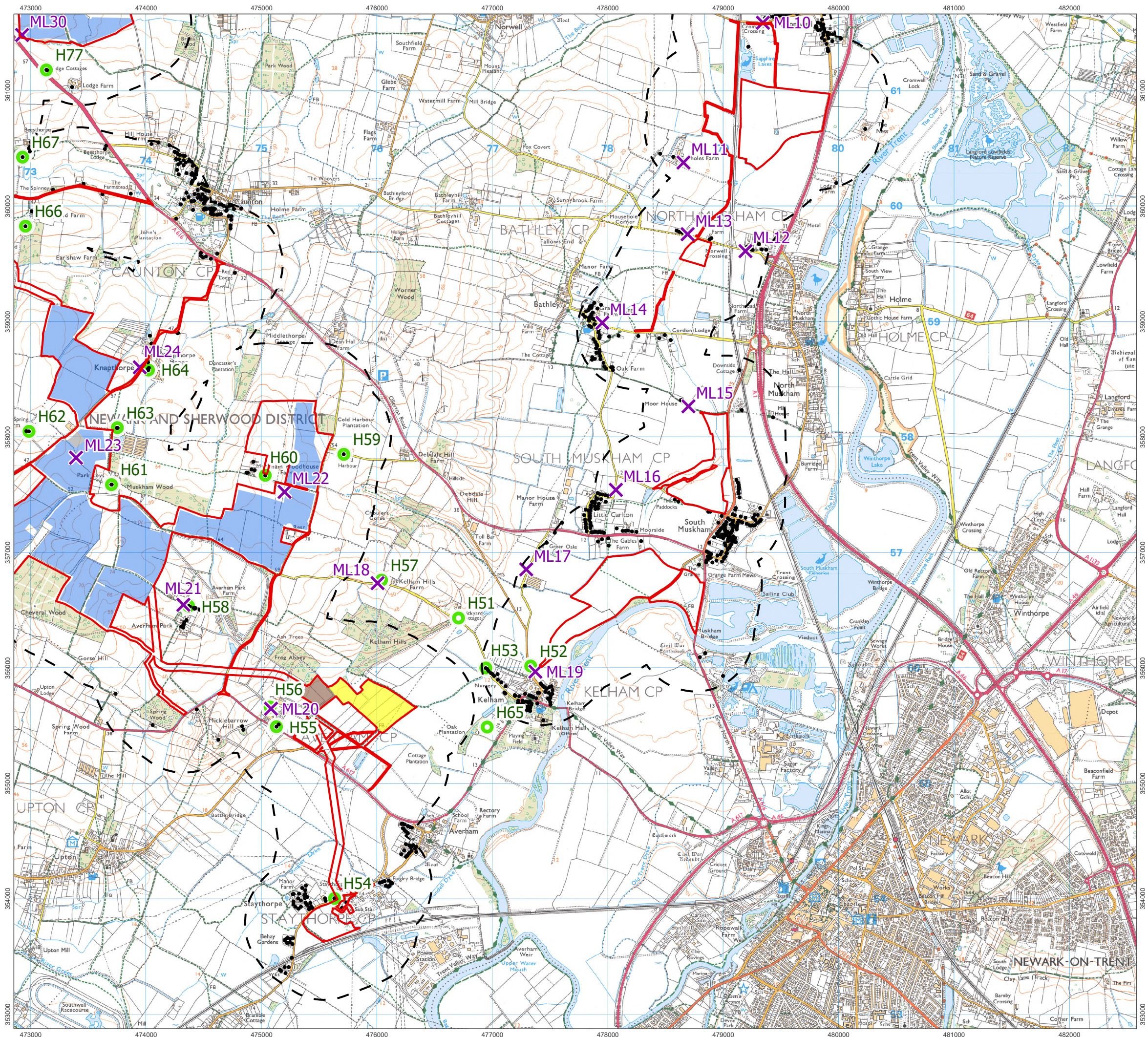
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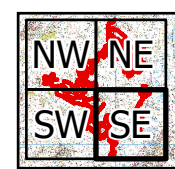
Noise Sensitive Receptors and Monitoring Locations  
Figure 12.1NW

Great North Road Solar and Biodiversity Park  
Environmental Statement





- Order Limits
  - 500 m Operational Noise Study Area
  - Noise Monitoring Location
  - Assessment Location
  - Noise Sensitive Receptors within 500 m of the Order Limits
- Works Numbers
- Works No. 1 Solar PV
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation



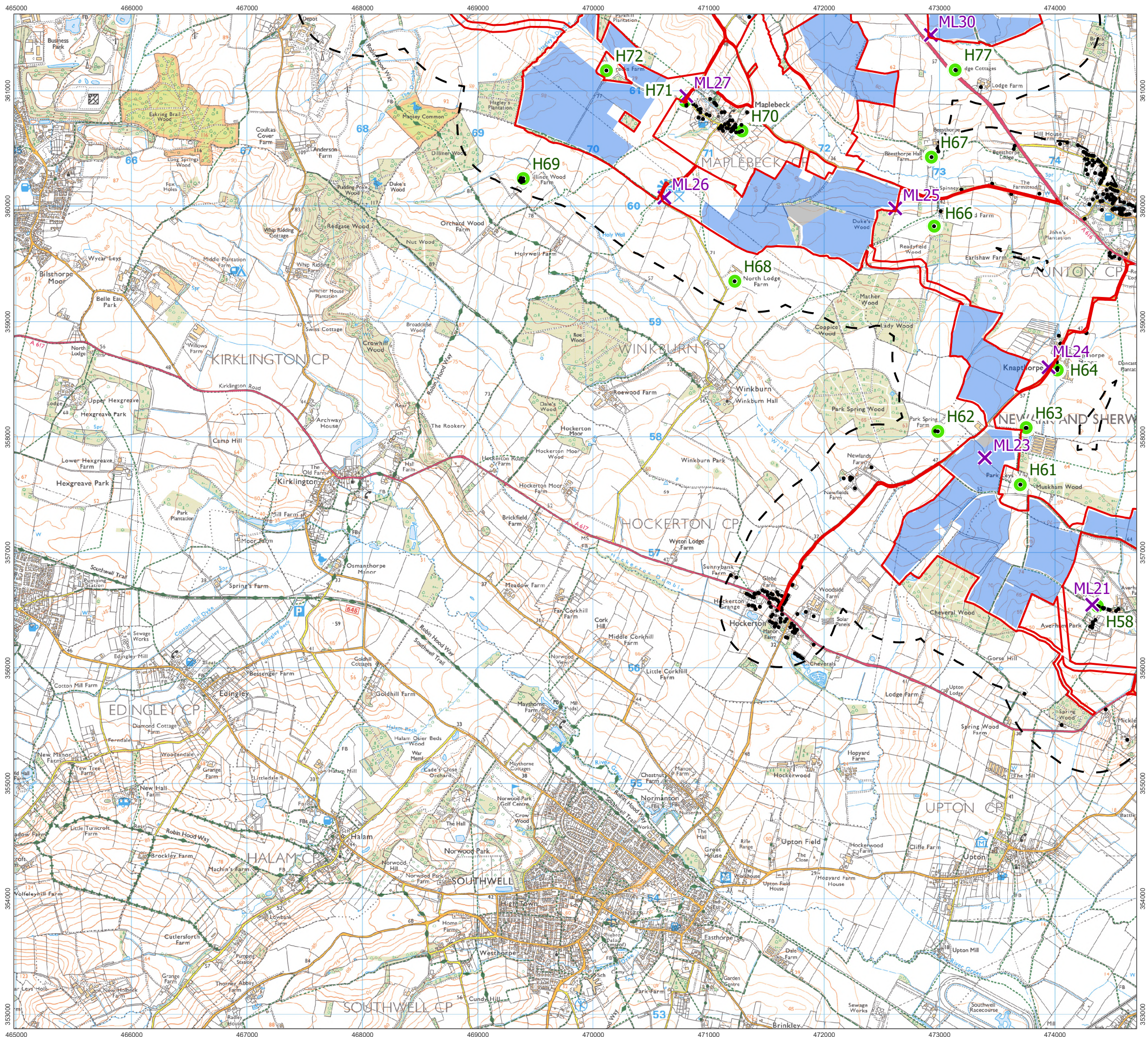
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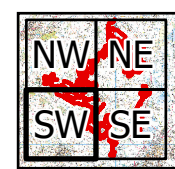
Noise Sensitive Receptors and Monitoring Locations  
Figure 12.1SE

Great North Road Solar and Biodiversity Park  
Environmental Statement





- Order Limits
  - 500 m Operational Noise Study Area
  - Noise Monitoring Location
  - Assessment Location
  - Noise Sensitive Receptors within 500 m of the Order Limits
- Works Numbers
- Works No. 1 Solar PV
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation



1:32,000 Scale @ A3

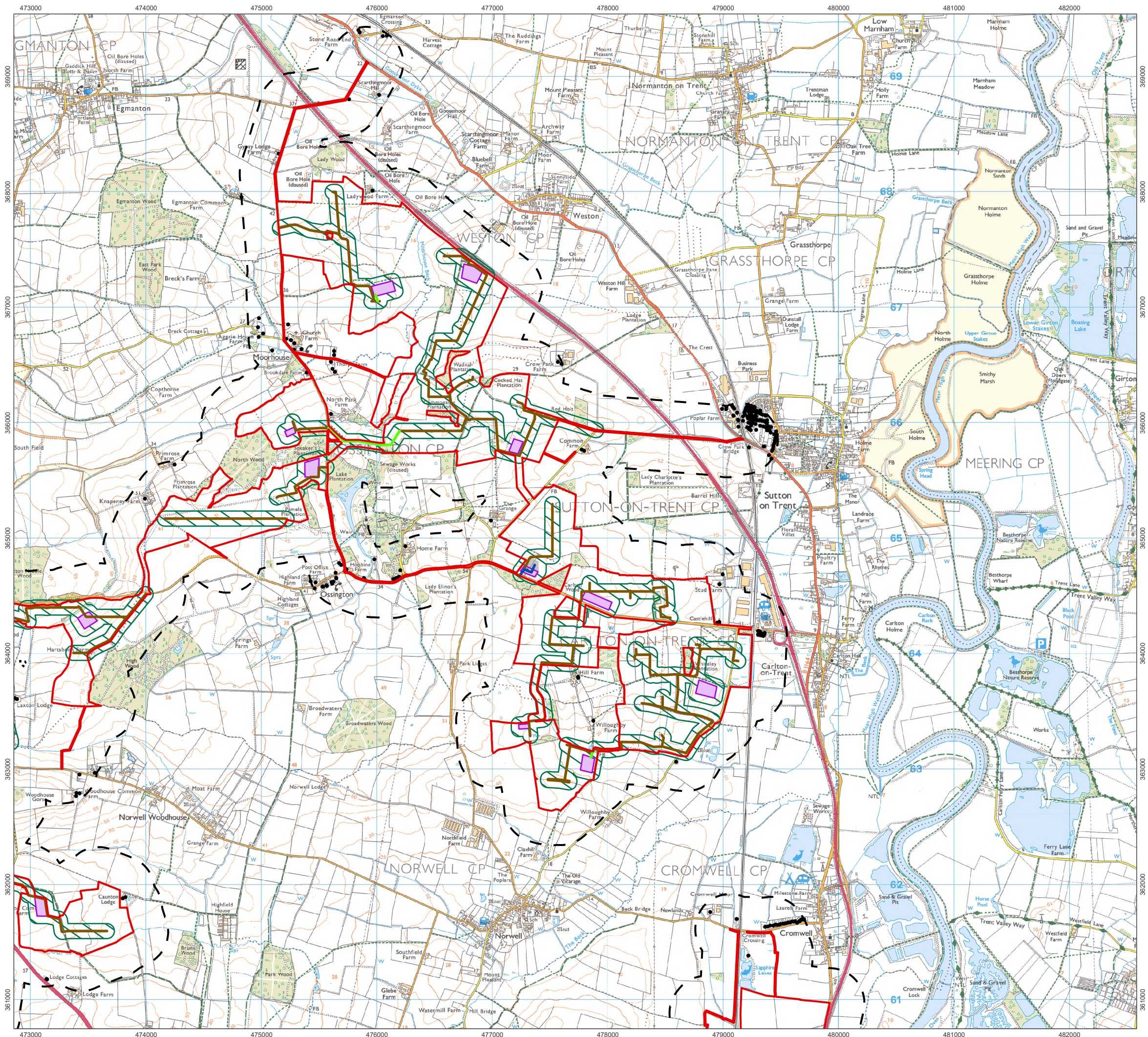
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Ref: 026-ES-12.1 Date: 26/06/2025

Noise Sensitive Receptors and Monitoring Locations  
Figure 12.1SW

Great North Road Solar and Biodiversity Park  
Environmental Statement





- Order Limits
- 300 m Construction Noise Study Area
- Noise Sensitive Receptors within 300 m of the Order Limits
- Area exceeding 65 dB LAeq,t during hardstanding construction activities
- Construction Compounds
- Internal Tarmac Roads
- Internal Temporary Roads
- Internal Stone Roads
- Works Numbers**
- Works No. 4 Substations
- Works No. 5A BESS
- Works No. 5B 400kV Substation

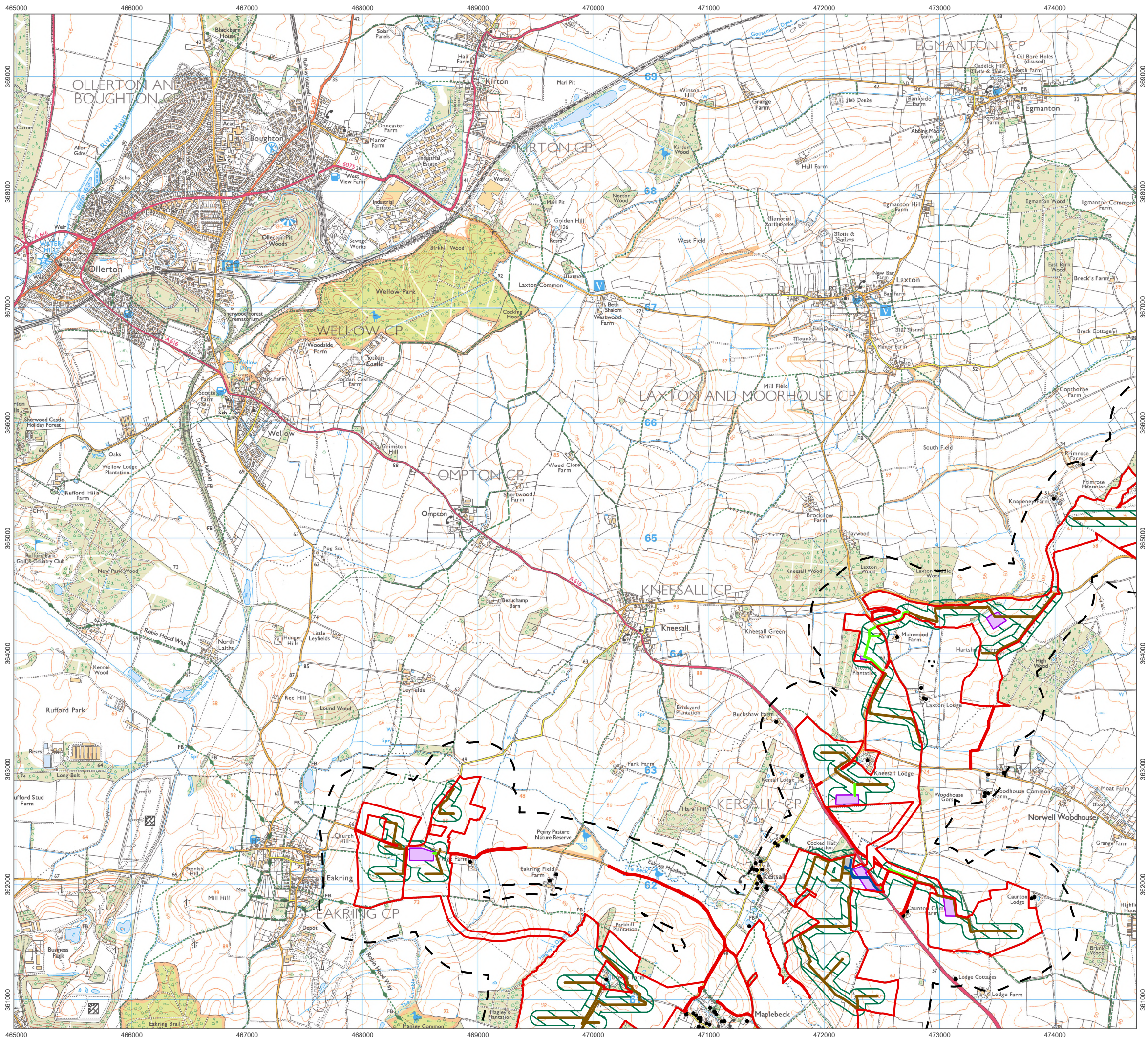


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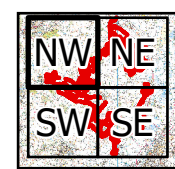
**Assessment of Noise during  
Hardstanding Construction Activities  
Figure 12.2NE**

**Great North Road Solar and  
Biodiversity Park  
Environmental Statement**





- Order Limits
- 300 m Construction Noise Study Area
- Noise Sensitive Receptors within 300 m of the Order Limits
- Area exceeding 65 dB LAeq,t during hardstanding construction activities
- Construction Compounds
- Internal Tarmac Roads
- Internal Temporary Roads
- Internal Stone Roads
- Works Numbers**
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation



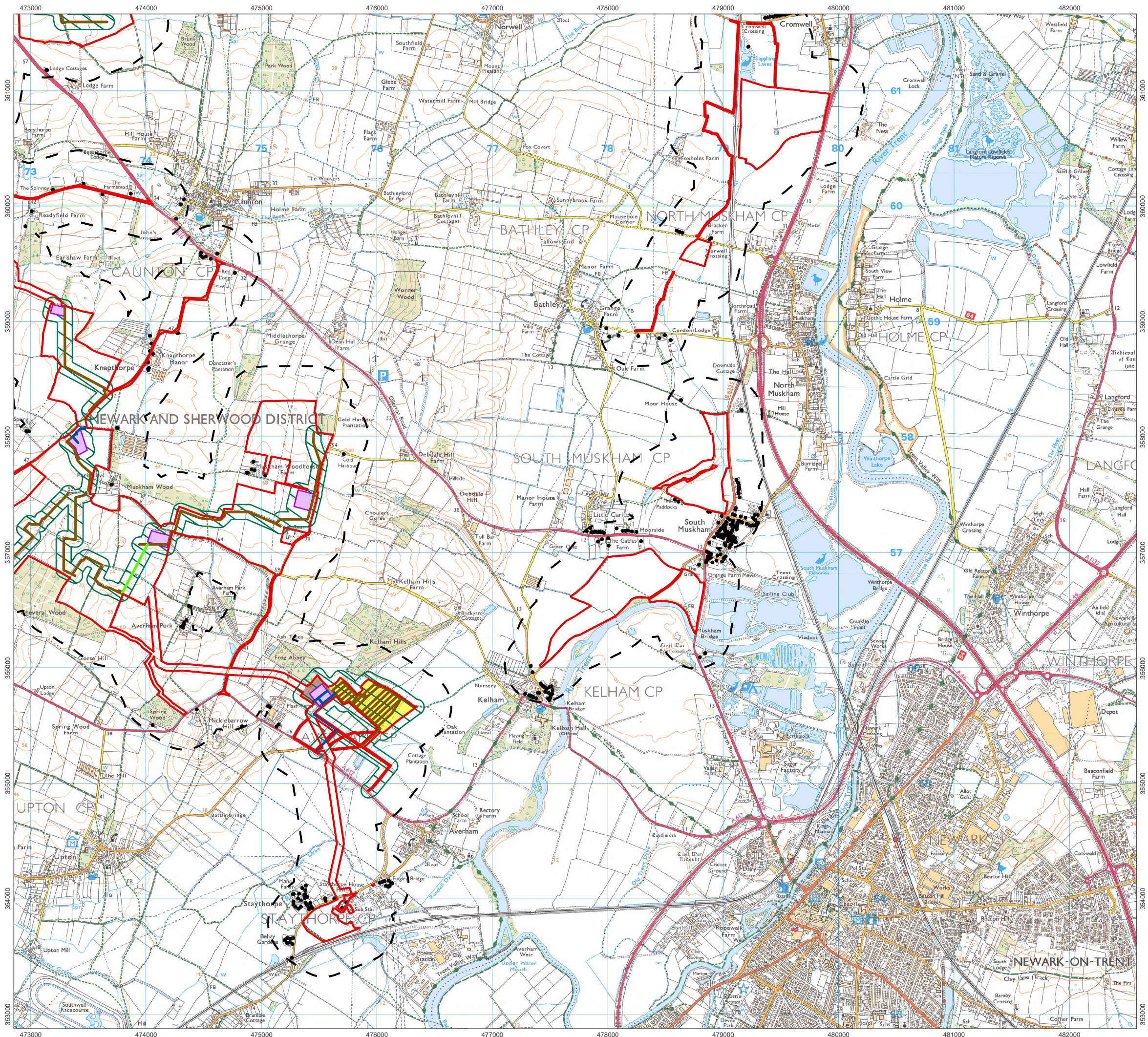
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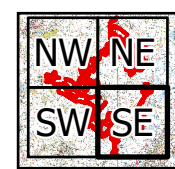
**Assessment of Noise during  
Hardstanding Construction Activities  
Figure 12.2NW**

**Great North Road Solar and  
Biodiversity Park  
Environmental Statement**





- Order Limits
- 300 m Construction Noise Study Area
- Noise Sensitive Receptors within 300 m of the Order Limits
- Area exceeding 65 dB LAeq,t during hardstanding construction activities
- Construction Compounds
- Internal Tarmac Roads
- Internal Temporary Roads
- Internal Stone Roads
- Works Numbers**
- Works No. 4 Substations
- Works No. 5A BESS
- Works No. 5B 400kV Substation

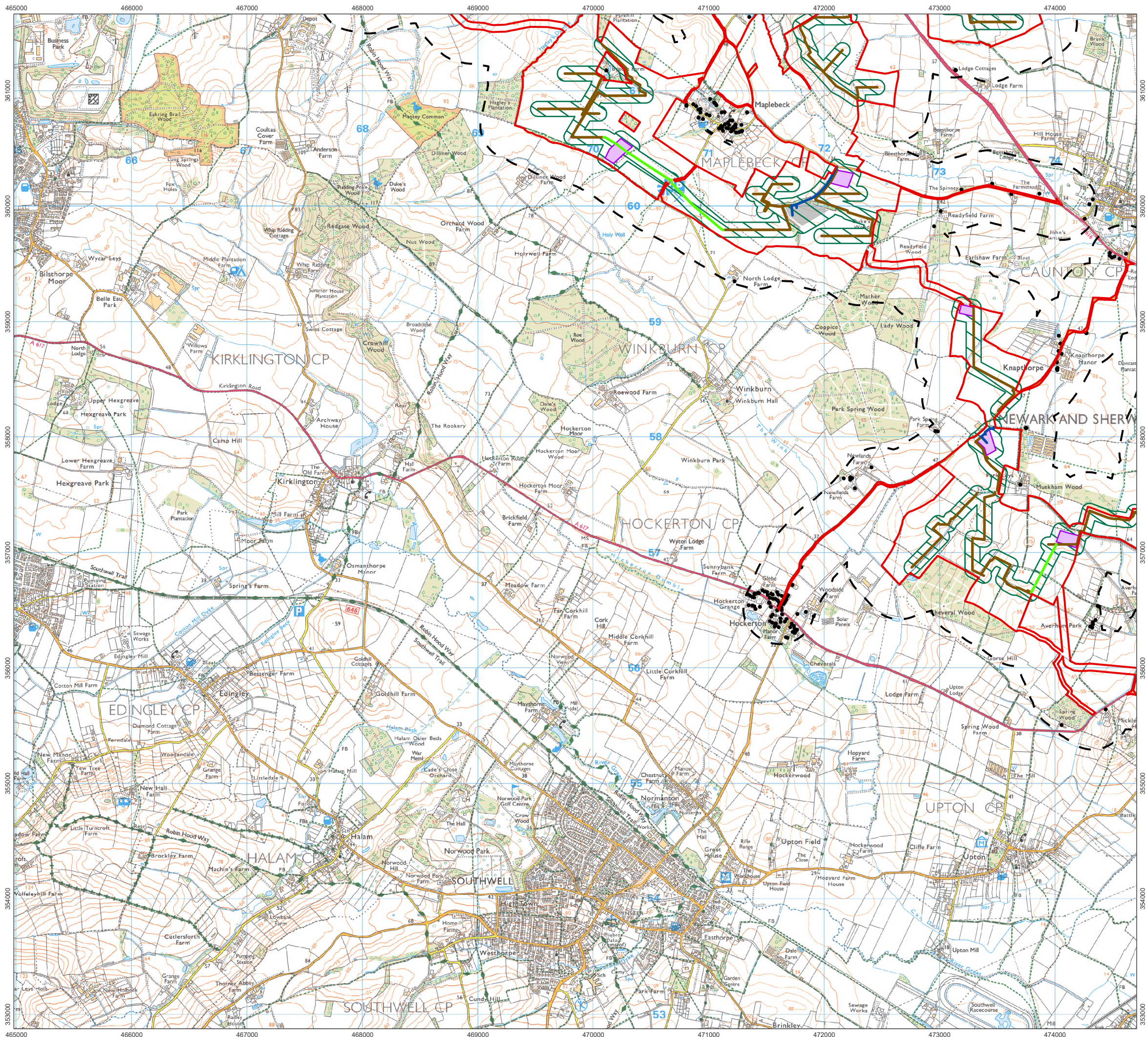


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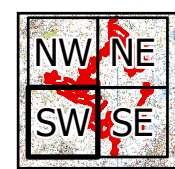
**Assessment of Noise during  
Hardstanding Construction Activities  
Figure 12.2SE**

**Great North Road Solar and  
Biodiversity Park  
Environmental Statement**





- Order Limits
- 300 m Construction Noise Study Area
- Noise Sensitive Receptors within 300 m of the Order Limits
- Area exceeding 65 dB LAeq,t during hardstanding construction activities
- Construction Compounds
- Internal Tarmac Roads
- Internal Temporary Roads
- Internal Stone Roads
- Works Numbers
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation



1:32,000 Scale @ A3

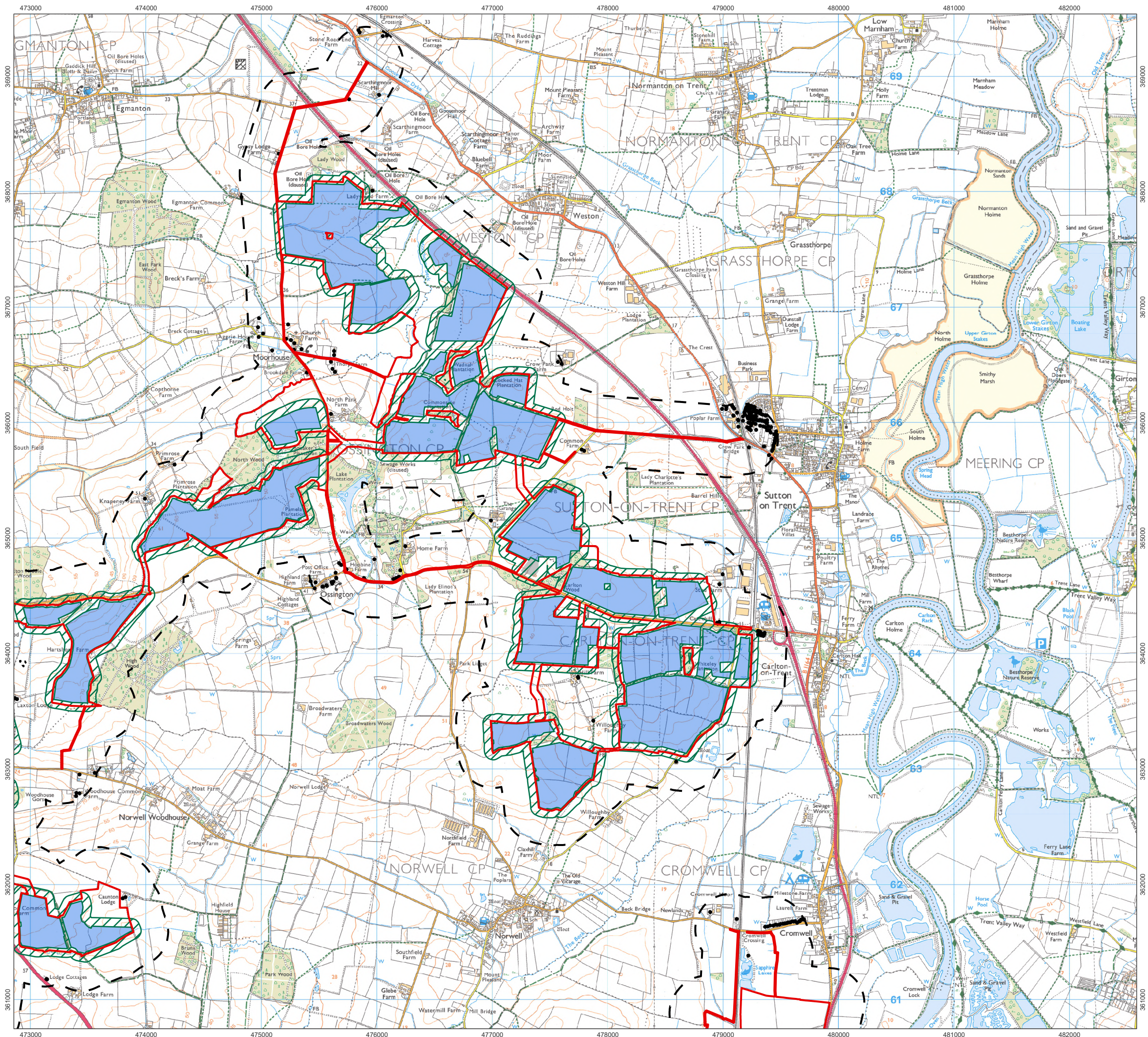
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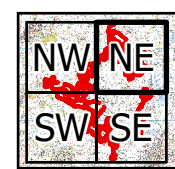
**Assessment of Noise during  
Hardstanding Construction Activities  
Figure 12.2SW**

**Great North Road Solar and  
Biodiversity Park  
Environmental Statement**





- Order Limits
- 300 m Construction Noise Study Area
- Area exceeding 65 db LAeq,t during PV module installation
- Noise Sensitive Receptors within 300 m of the Order Limits
- Works Numbers**
  - Works No. 1 Solar PV
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation



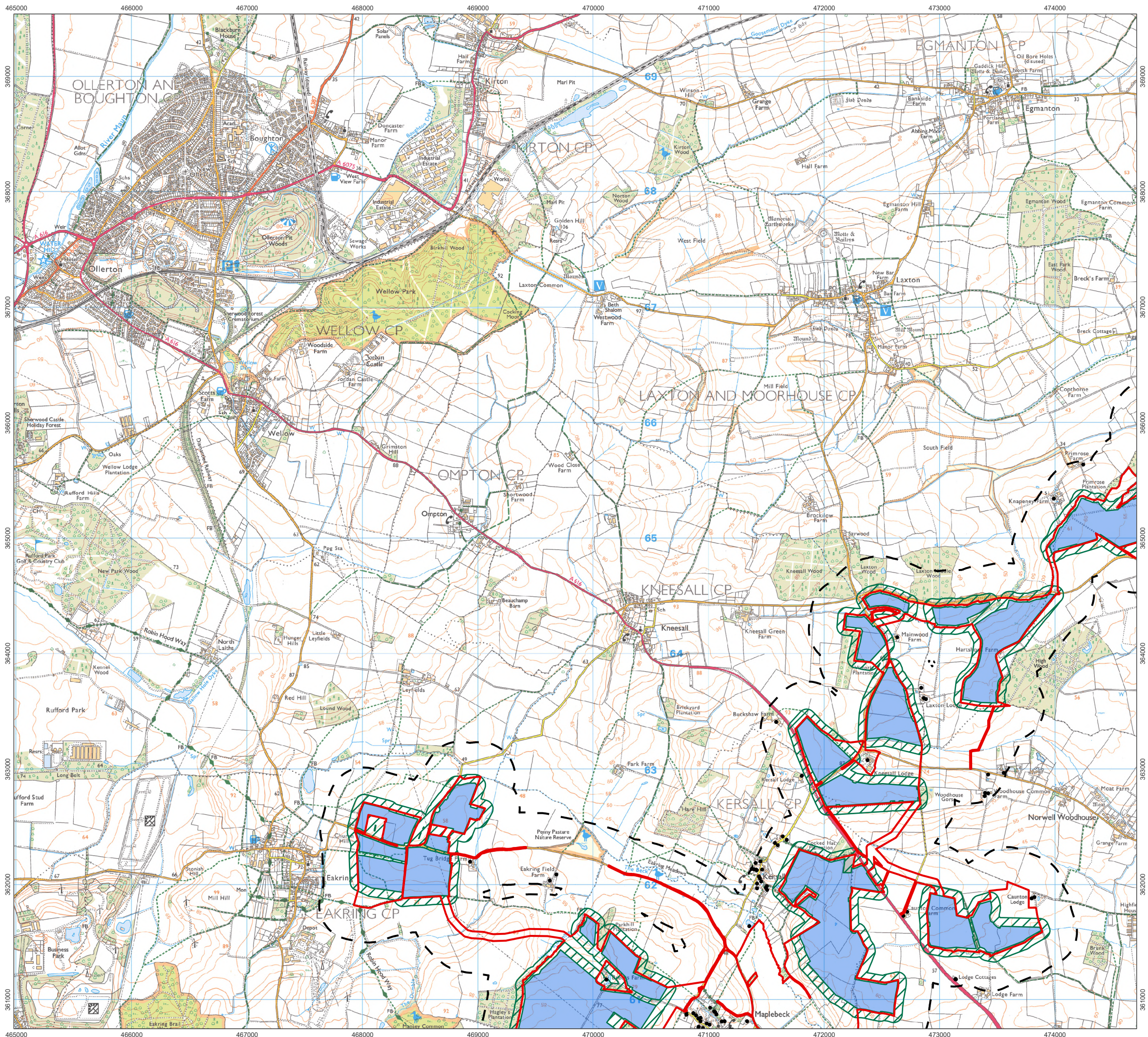
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Assessment of Noise during PV Module Construction Activities  
Figure 12.3NE

Great North Road Solar and Biodiversity Park  
Environmental Statement





- Order Limits
- 300 m Construction Noise Study Area
- Area exceeding 65 db LAeq,t during PV module installtion
- Noise Sensitive Receptors within 300 m of the Order Limits
- Works Numbers
  - Works No. 1 Solar PV
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation

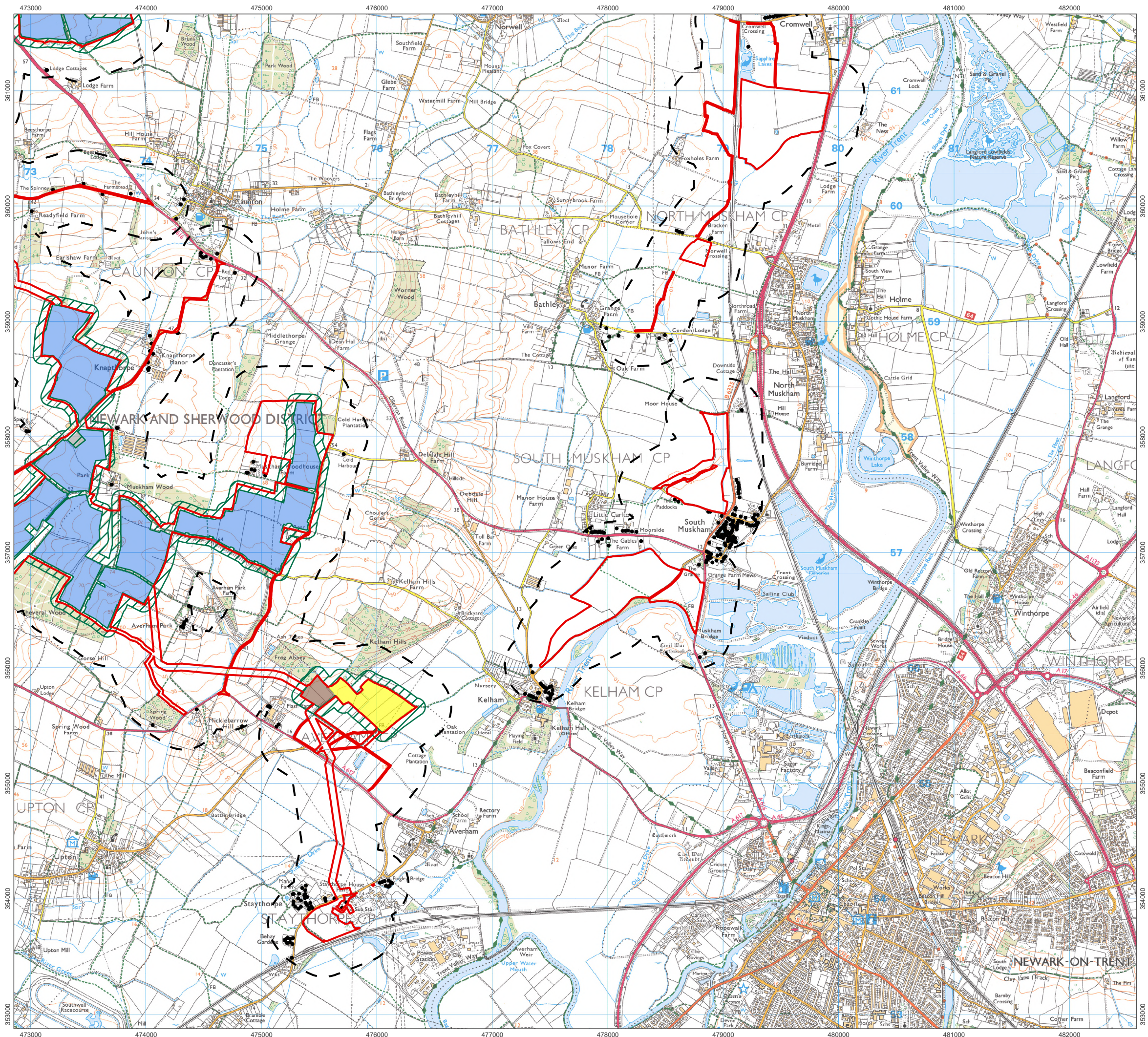


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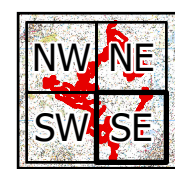
**Assessment of Noise during PV Module Construction Activities**  
**Figure 12.3NW**

**Great North Road Solar and Biodiversity Park**  
**Environmental Statement**





- Order Limits
- 300 m Construction Noise Study Area
- Area exceeding 65 db LAeq,t during PV module installation
- Noise Sensitive Receptors within 300 m of the Order Limits
- Works Numbers
  - Works No. 1 Solar PV
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation



1:32,000 Scale @ A3

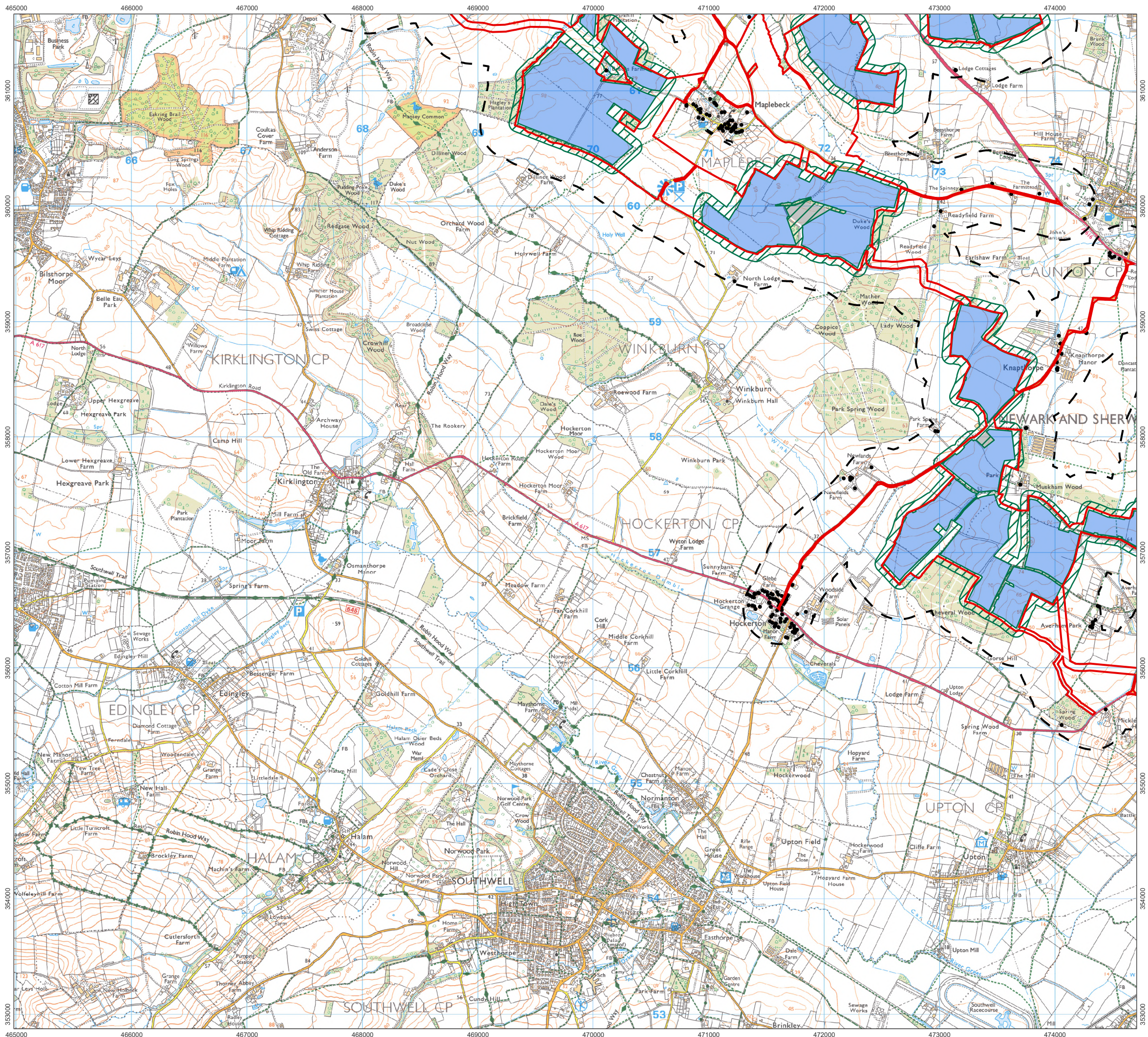
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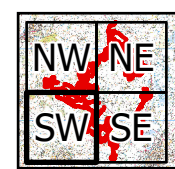
Assessment of Noise during PV Module Construction Activities  
Figure 12.3SE

Great North Road Solar and Biodiversity Park  
Environmental Statement





- Order Limits
- 300 m Construction Noise Study Area
- Area exceeding 65 db LAeq,t during PV module installation
- Noise Sensitive Receptors within 300 m of the Order Limits
- Works Numbers
  - Works No. 1 Solar PV
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation



1:32,000 Scale @ A3

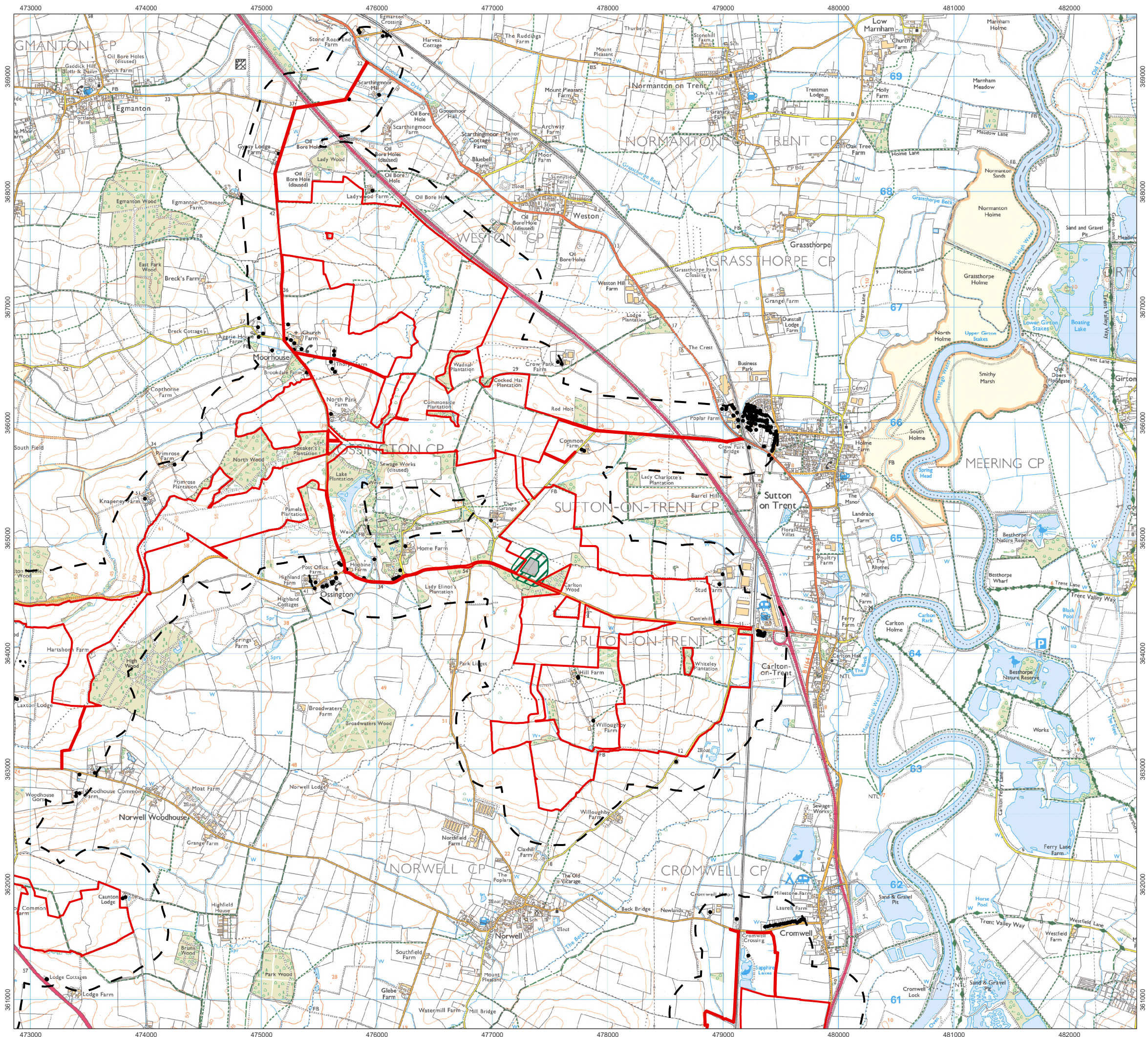
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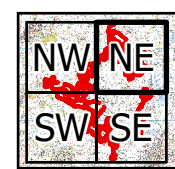
Assessment of Noise during PV Module Construction Activities  
Figure 12.3SW

Great North Road Solar and Biodiversity Park  
Environmental Statement





- Order Limits
- 300 m Construction Noise Study Area
- Area exceeding 65 dB LAeq,t during substation and BESS installation
- Noise Sensitive Receptors within 300 m of the Order Limits
- Works Numbers**
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation
  - Works No. 6 National Grid Substation
  - Works No. 7 Staythorpe BESS Connection

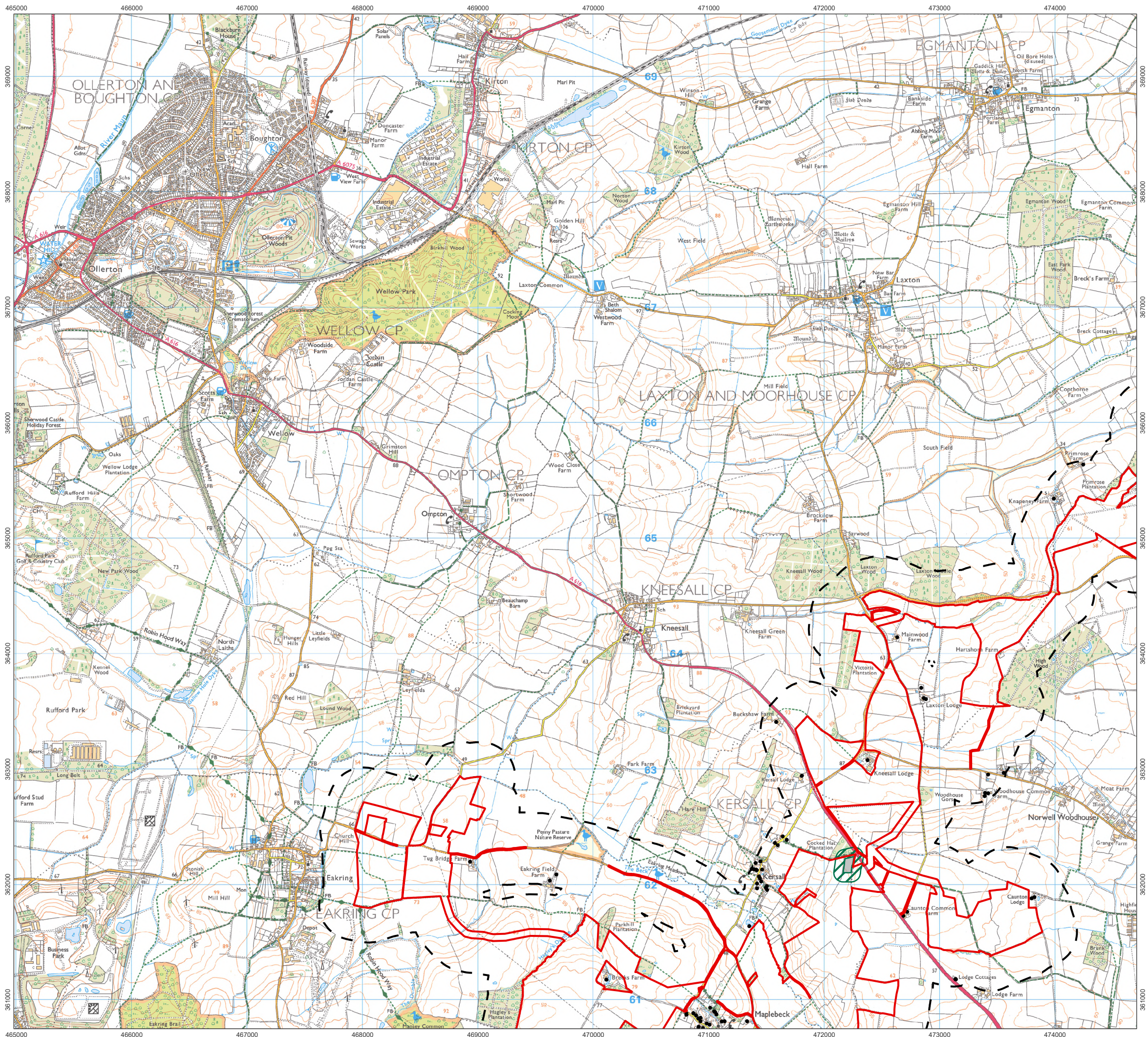


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**Assessment of Noise during Installation of Substations and BESS Construction Activities**  
**Figure 12.4NE**

**Great North Road Solar and Biodiversity Park Environmental Statement**





- Order Limits
- 300 m Construction Noise Study Area
- Area exceeding 65 dB LAeq,t during substation and BESS installation
- Noise Sensitive Receptors within 300 m of the Order Limits
- Works Numbers**
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation
  - Works No. 6 National Grid Substation
  - Works No. 7 Staythorpe BESS Connection

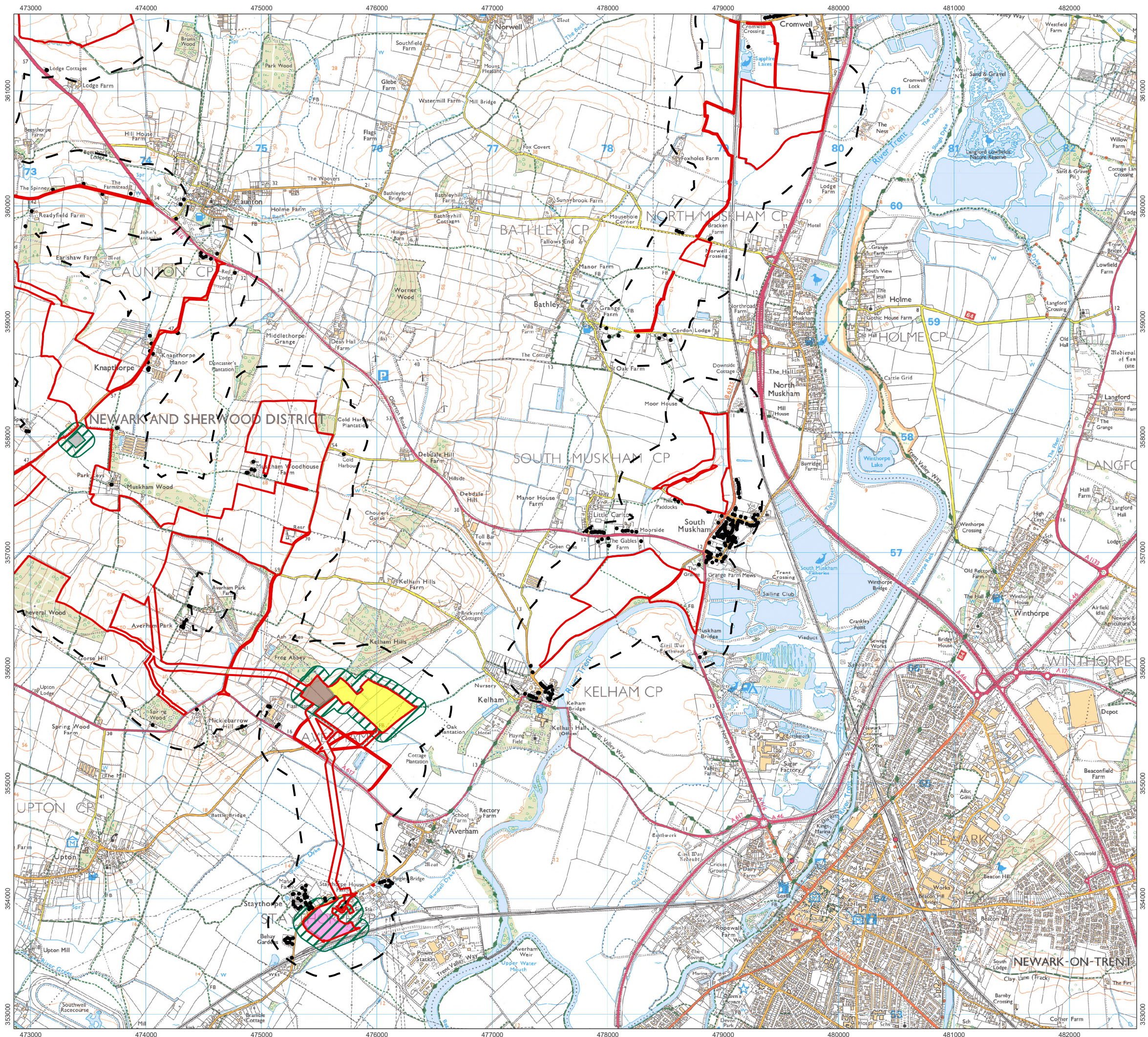


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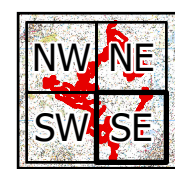
**Assessment of Noise during Installation of Substations and BESS Construction Activities**  
**Figure 12.4NW**

**Great North Road Solar and Biodiversity Park**  
**Environmental Statement**





- Order Limits
- 300 m Construction Noise Study Area
- Area exceeding 65 dB LAeq,t during substation and BESS installation
- Noise Sensitive Receptors within 300 m of the Order Limits
- Works Numbers**
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation
  - Works No. 6 National Grid Substation
  - Works No. 7 Staythorpe BESS Connection

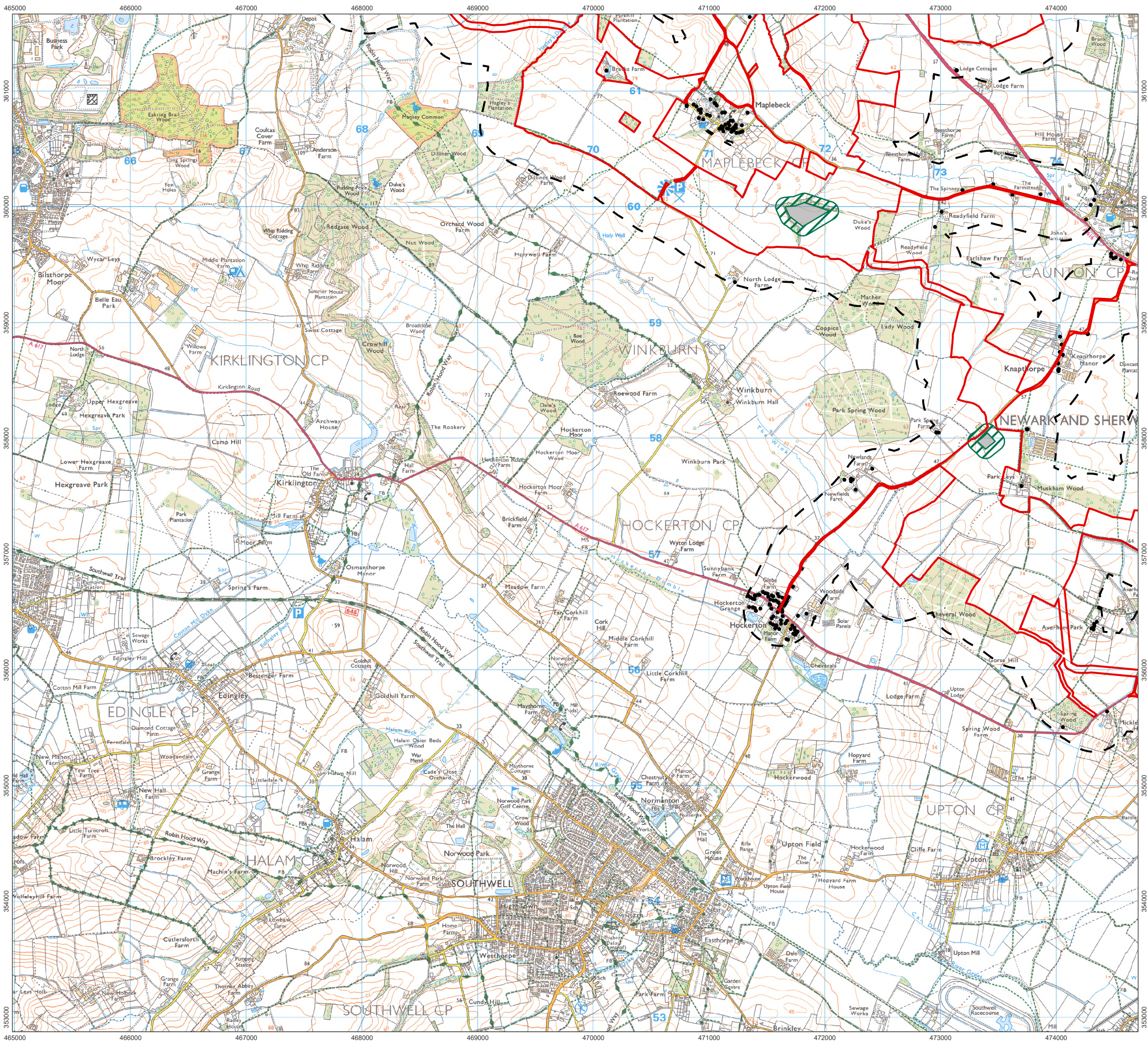


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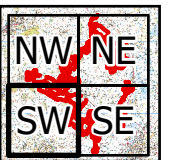
**Assessment of Noise during Installation of Substations and BESS Construction Activities**  
**Figure 12.4SE**

**Great North Road Solar and Biodiversity Park**  
**Environmental Statement**





- Order Limits
- 300 m Construction Noise Study Area
- Area exceeding 65 dB LAeq,t during substation and BESS installation
- Noise Sensitive Receptors within 300 m of the Order Limits
- Works Numbers
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation
  - Works No. 6 National Grid Substation
  - Works No. 7 Staythorpe BESS Connection



1:32,000 Scale @ A3

0 0.25 0.5 1 km

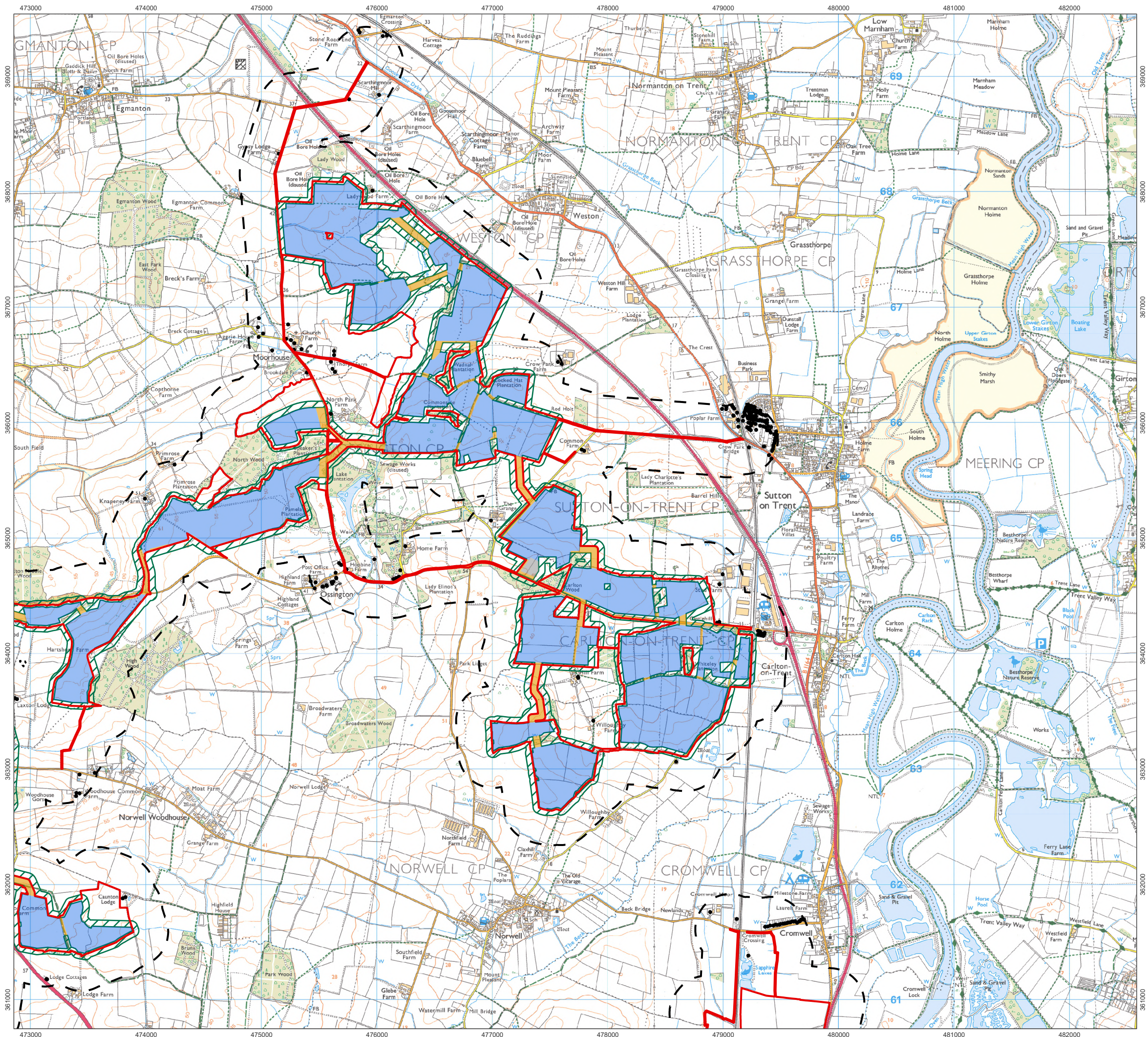
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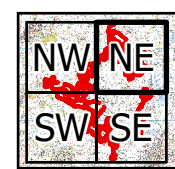
Assessment of Noise during Installation of Substations and BESS Construction Activities  
Figure 12.4SW

Great North Road Solar and Biodiversity Park  
Environmental Statement





- Order Limits
- 300 m Construction Noise Study Area
- Area exceeding 65 dB LAeq,t during cable route installation
- Noise Sensitive Receptors within 300 m of the Order Limits
- Works Numbers**
  - Works No. 1 Solar PV
  - Works No. 2 Cable
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation
  - Works No. 6 National Grid Substation
  - Works No. 7 Staythorpe BESS Connection



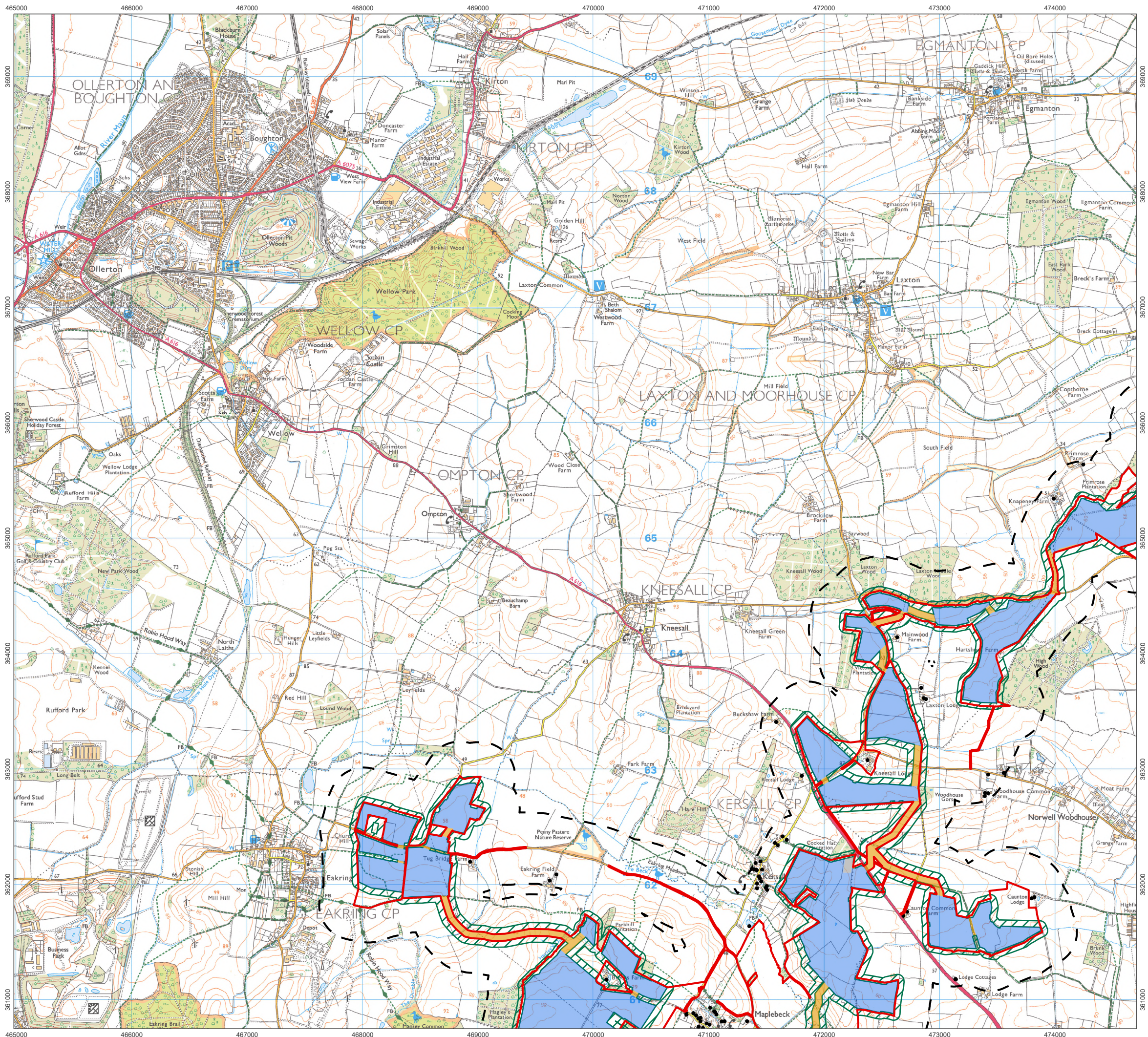
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Ref: 026-ES-12.5 Date: 23/06/2025

**Assessment of Noise during Installation of Cable Route**  
**Figure 12.5NE**

**Great North Road Solar and Biodiversity Park**  
**Environmental Statement**





- Order Limits
- 300 m Construction Noise Study Area
- Area exceeding 65 dB LAeq,t during cable route installation
- Noise Sensitive Receptors within 300 m of the Order Limits
- Works Numbers**
  - Works No. 1 Solar PV
  - Works No. 2 Cable
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation
  - Works No. 6 National Grid Substation
  - Works No. 7 Staythorpe BESS Connection

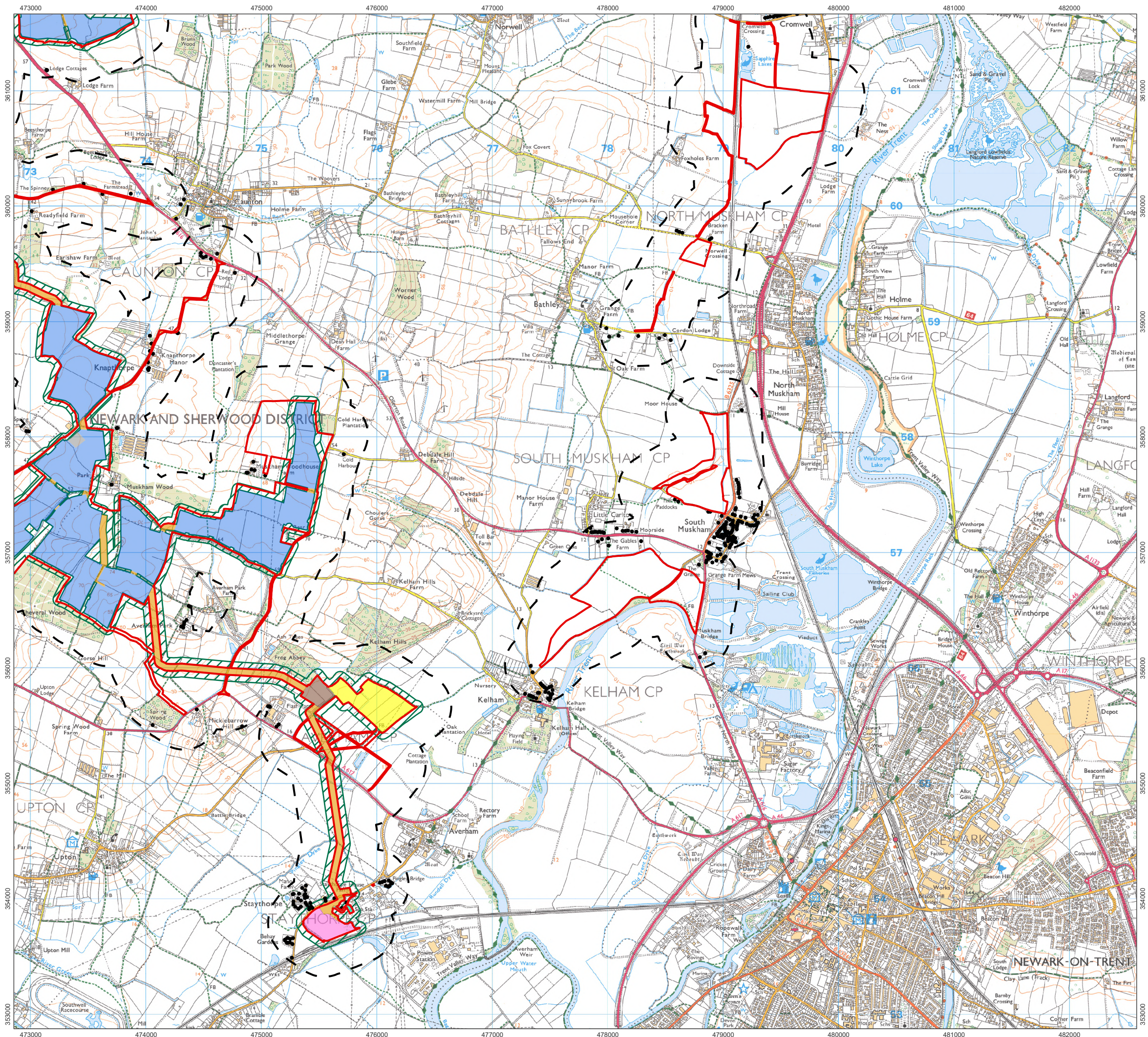


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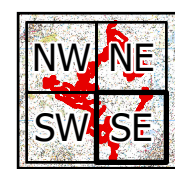
Assessment of Noise during Installation of Cable Route  
Figure 12.5NW

Great North Road Solar and Biodiversity Park  
Environmental Statement





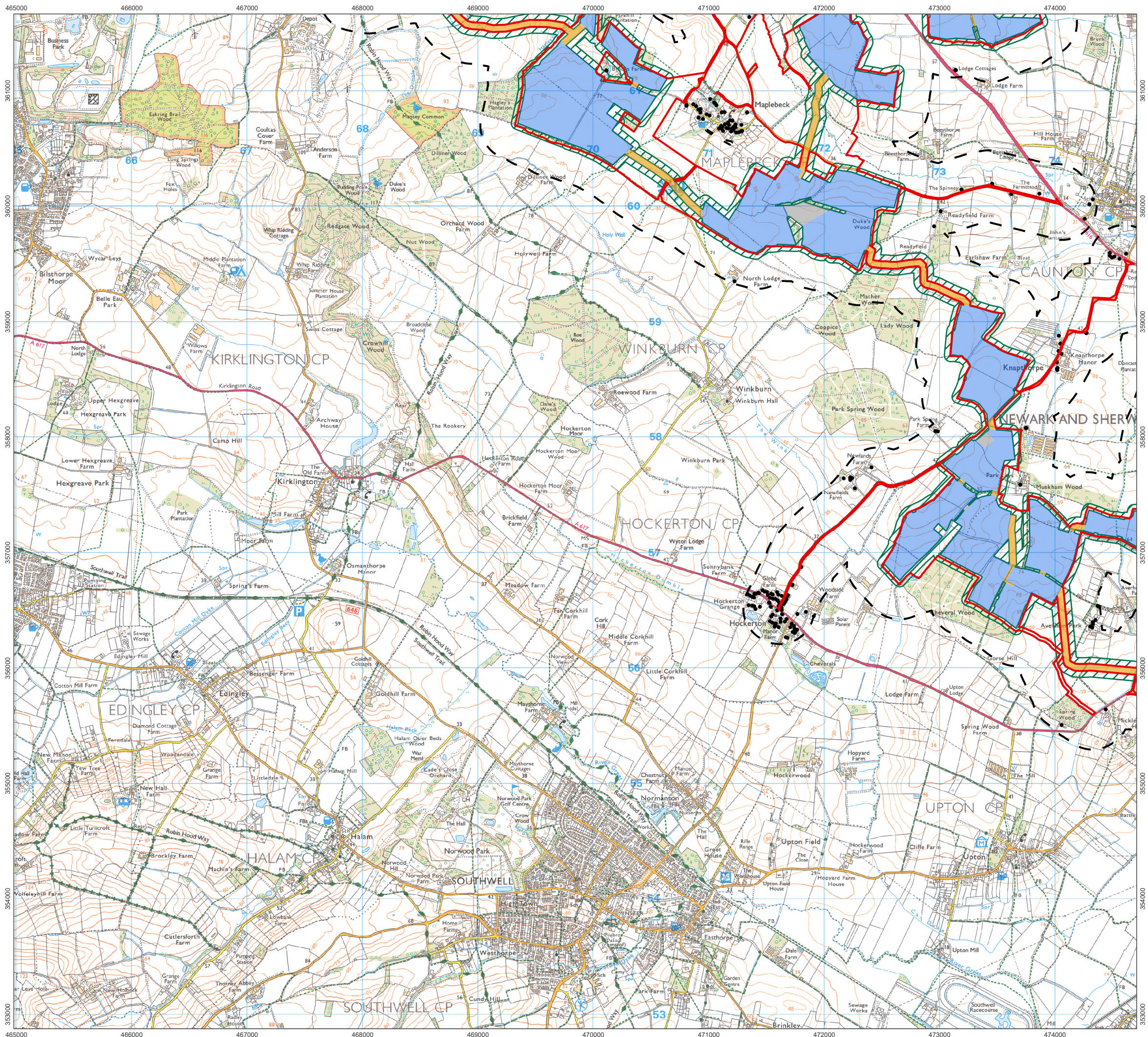
- Order Limits
- 300 m Construction Noise Study Area
- Area exceeding 65 dB LAeq,t during cable route installation
- Noise Sensitive Receptors within 300 m of the Order Limits
- Works Numbers**
  - Works No. 1 Solar PV
  - Works No. 2 Cable
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation
  - Works No. 6 National Grid Substation
  - Works No. 7 Staythorpe BESS Connection



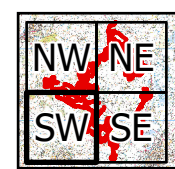
Ref: 026-ES-12.5      Date: 23/06/2025

**Assessment of Noise during Installation of Cable Route**  
**Figure 12.5SE**





- Order Limits
- 300 m Construction Noise Study Area
- Area exceeding 65 dB LAeq,t during cable route installation
- Noise Sensitive Receptors within 300 m of the Order Limits
- Works Numbers
  - Works No. 1 Solar PV
  - Works No. 2 Cable
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation
  - Works No. 6 National Grid Substation
  - Works No. 7 Staythorpe BESS Connection



1:32,000 Scale @ A3

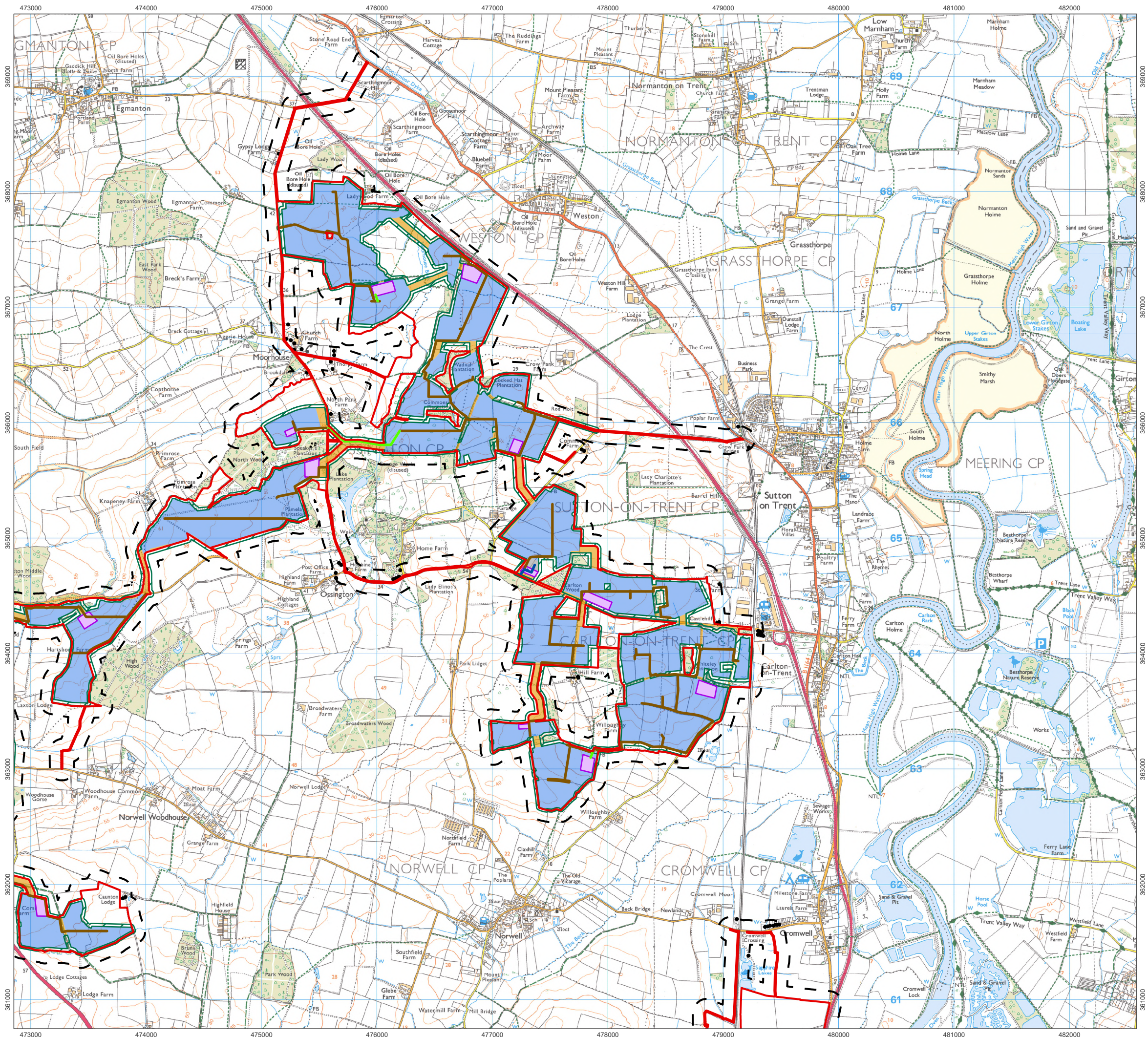
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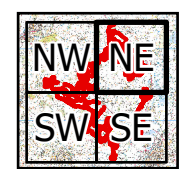
Assessment of Noise during Installation of Cable Route  
Figure 12.5SW

Great North Road Solar and Biodiversity Park  
Environmental Statement





- Order Limits
- 100 m Vibration Activity Study Area
- Construction Compounds
- Area exceeding 1 mm/s PPV during construction activities
- Internal Tarmac Roads
- Internal Temporary Roads
- Internal Stone Roads
- Works Numbers**
  - Works No. 1 Solar PV
  - Works No. 2 Cable
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation
  - Works No. 6 National Grid Substation
  - Works No. 7 Staythorpe BESS Connection



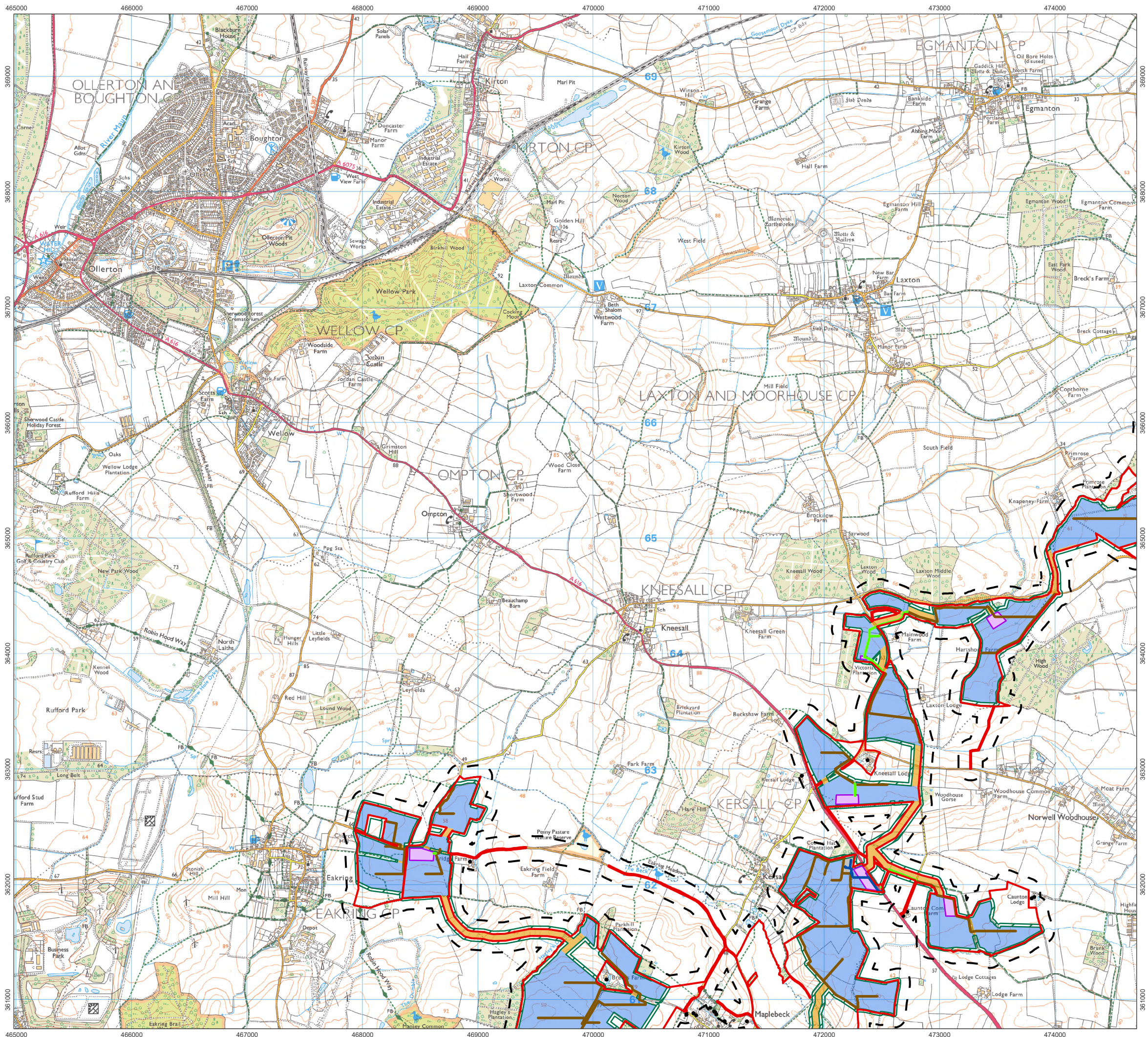
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Ref: 026-ES-12.6 Date: 20/06/2025

**Assessment of Vibration Impacts**  
**Figure 12.6NE**

**Great North Road Solar and Biodiversity Park**  
**Environmental Statement**





- Order Limits
- 100 m Vibration Activity Study Area
- Construction Compounds
- Area exceeding 1 mm/s PPV during construction activities
- Internal Tarmac Roads
- Internal Temporary Roads
- Internal Stone Roads
- Works Numbers**
- Works No. 1 Solar PV
- Works No. 2 Cable
- Works No. 4 Substations
- Works No. 5A BESS
- Works No. 5B 400kV Substation
- Works No. 6 National Grid Substation
- Works No. 7 Staythorpe BESS Connection



1:32,000 Scale @ A3

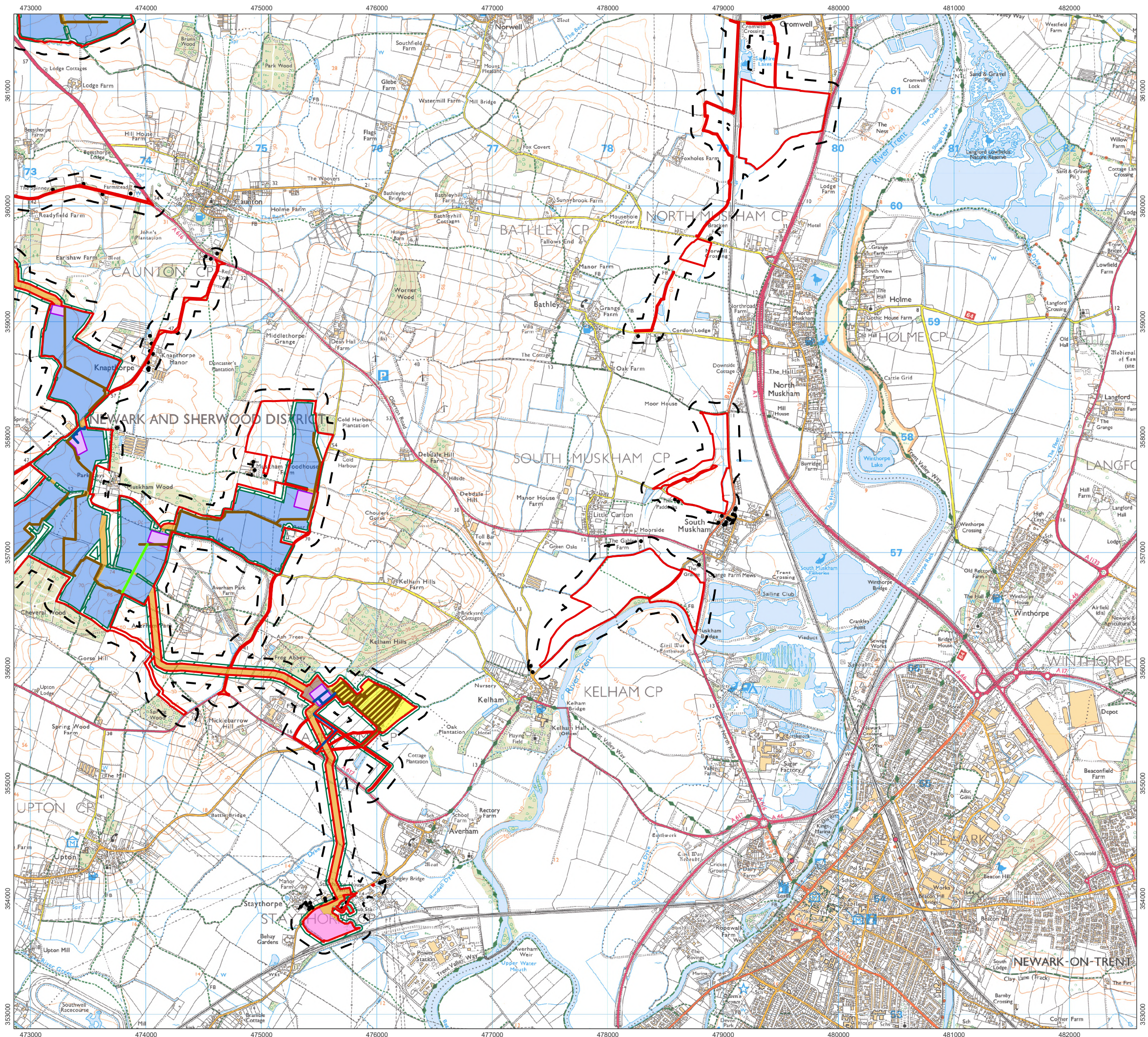
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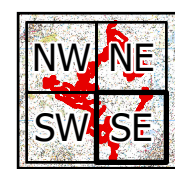
Assessment of Vibration Impacts  
Figure 12.6NW

Great North Road Solar and  
Biodiversity Park  
Environmental Statement





- Order Limits
- 100 m Vibration Activity Study Area
- Construction Compounds
- Area exceeding 1 mm/s PPV during construction activities
- Internal Tarmac Roads
- Internal Temporary Roads
- Internal Stone Roads
- Works Numbers
  - Works No. 1 Solar PV
  - Works No. 2 Cable
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation
  - Works No. 6 National Grid Substation
  - Works No. 7 Staythorpe BESS Connection



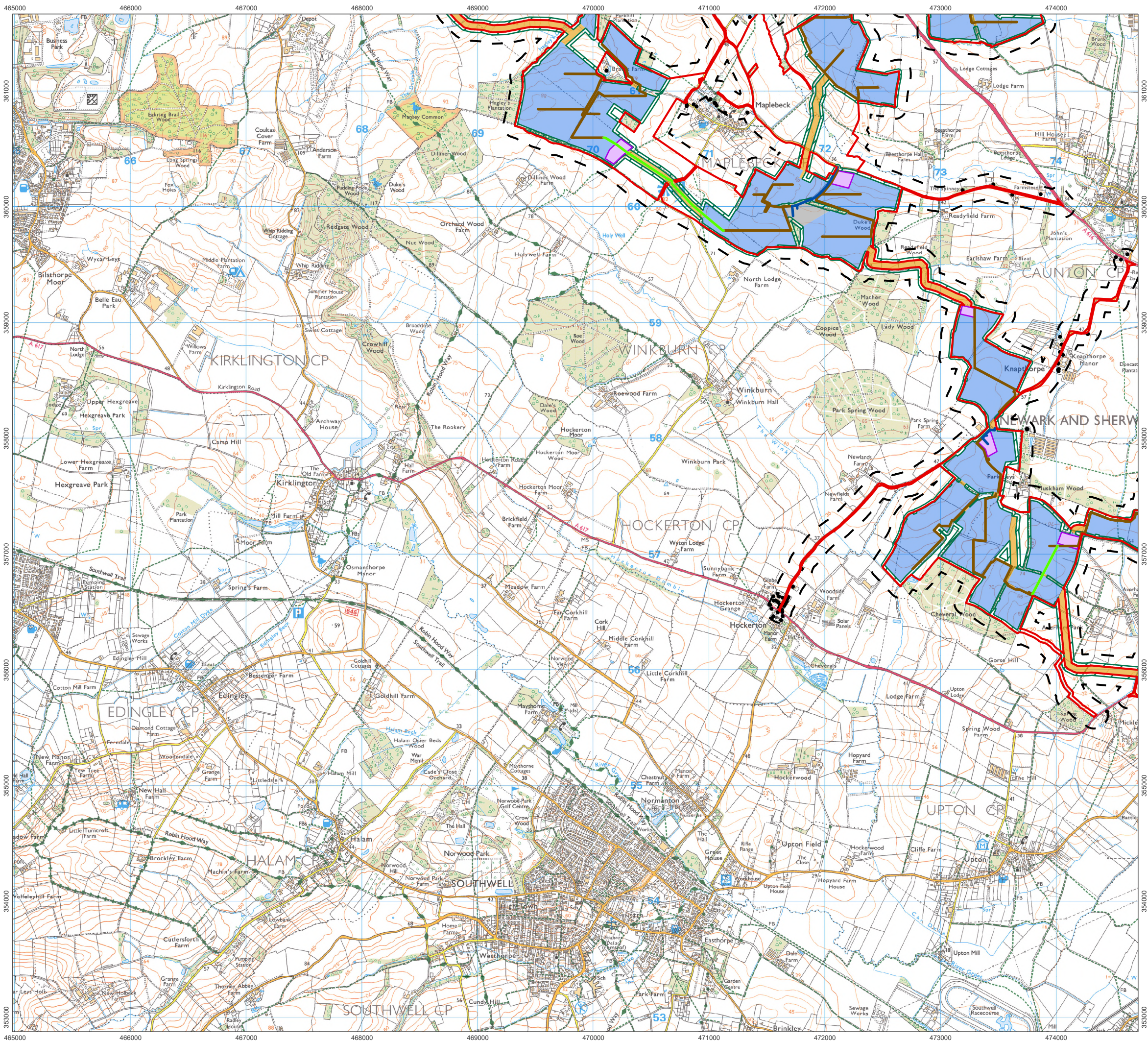
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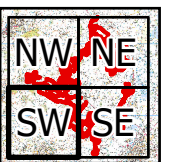
Assessment of Vibration Impacts  
Figure 12.6SE

Great North Road Solar and  
Biodiversity Park  
Environmental Statement





- Order Limits
- 100 m Vibration Activity Study Area
- Construction Compounds
- Area exceeding 1 mm/s PPV during construction activities
- Internal Tarmac Roads
- Internal Temporary Roads
- Internal Stone Roads
- Works Numbers
  - Works No. 1 Solar PV
  - Works No. 2 Cable
  - Works No. 4 Substations
  - Works No. 5A BESS
  - Works No. 5B 400kV Substation
  - Works No. 6 National Grid Substation
  - Works No. 7 Staythorpe BESS Connection



1:32,000 Scale @ A3

0 0.25 0.5 1 km

Ref: 026-ES-12.6

Date: 20/06/2025

**Assessment of Vibration Impacts**  
**Figure 12.6SW**

**Great North Road Solar and Biodiversity Park**  
**Environmental Statement**