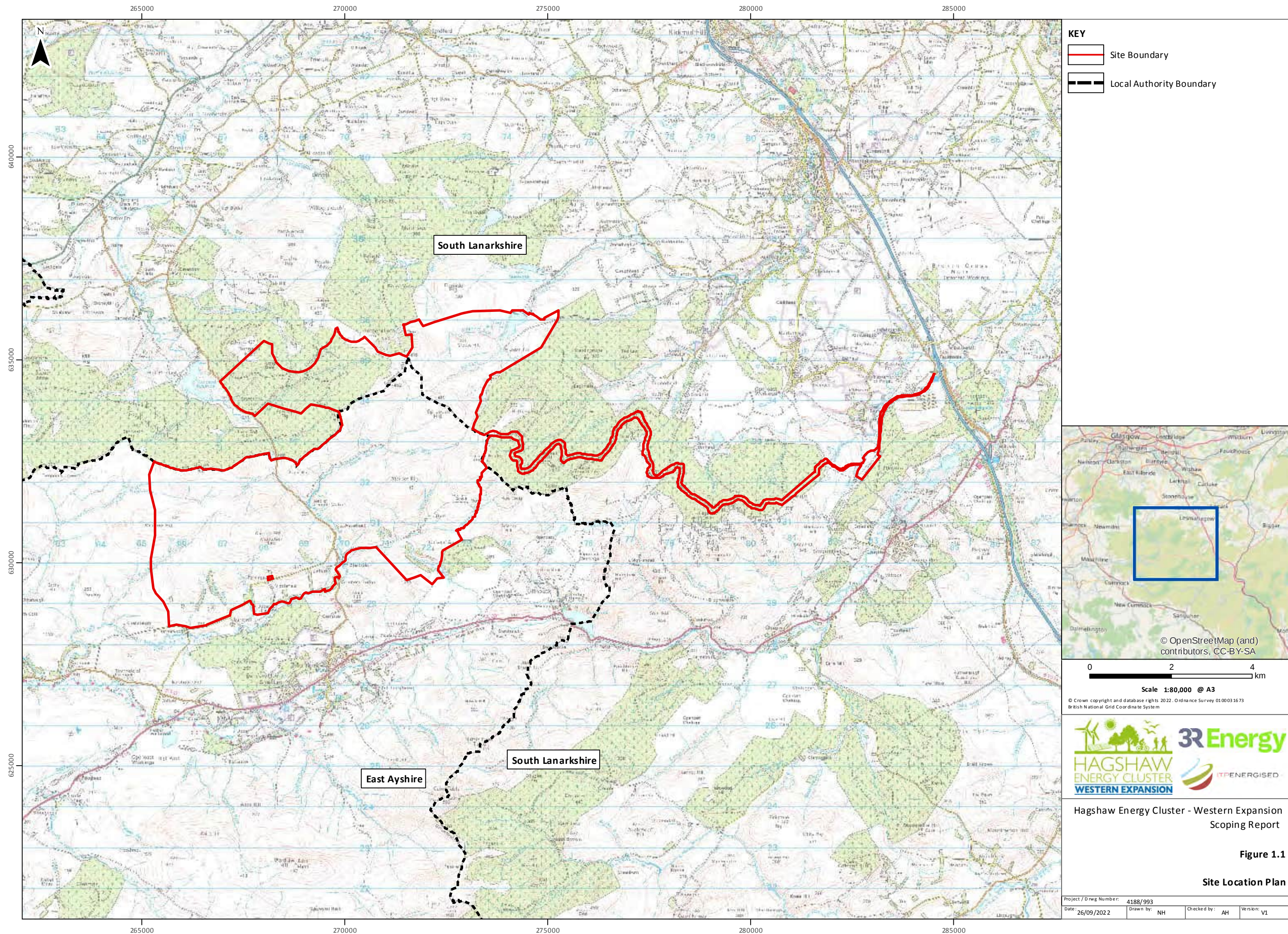
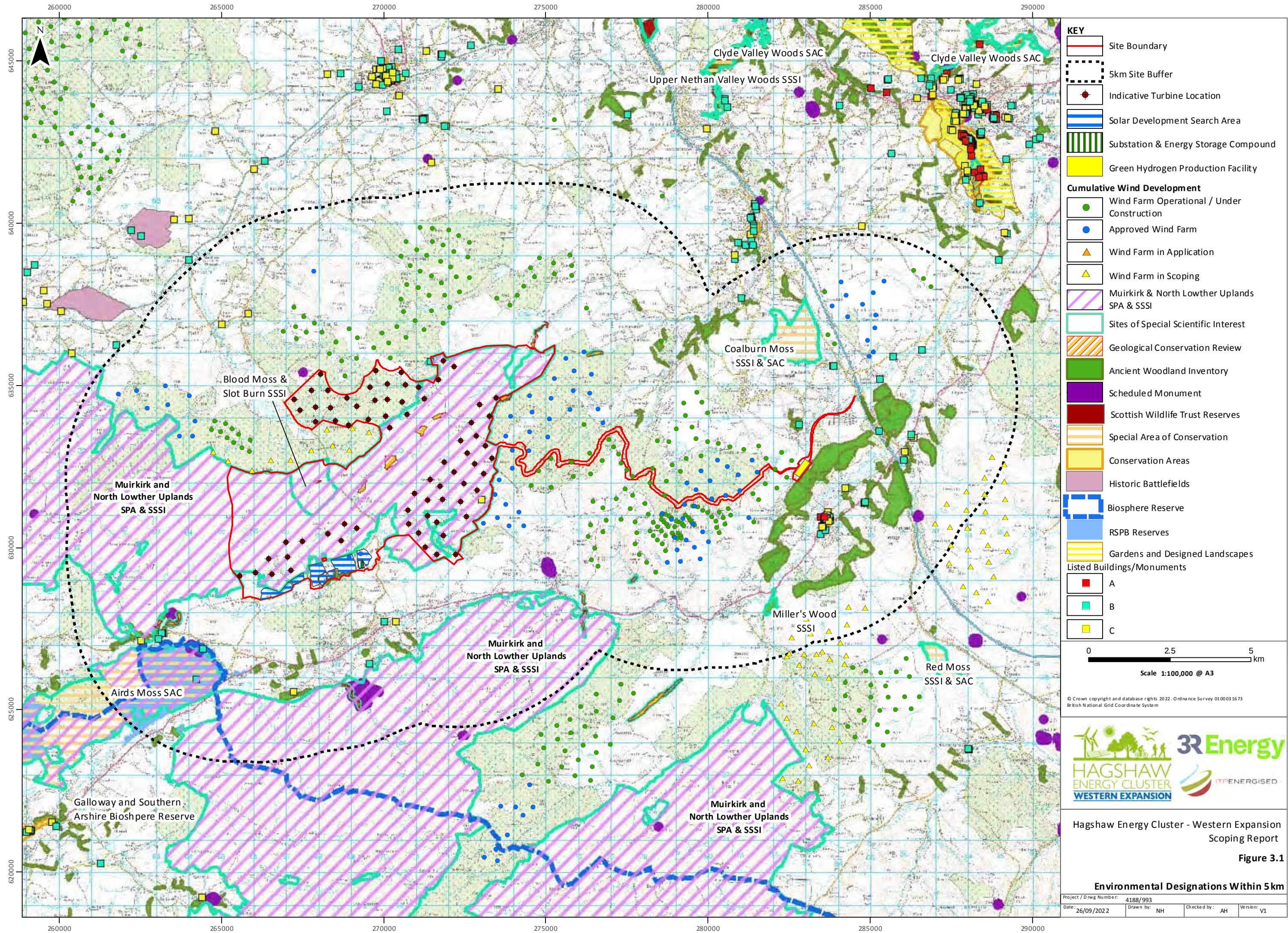
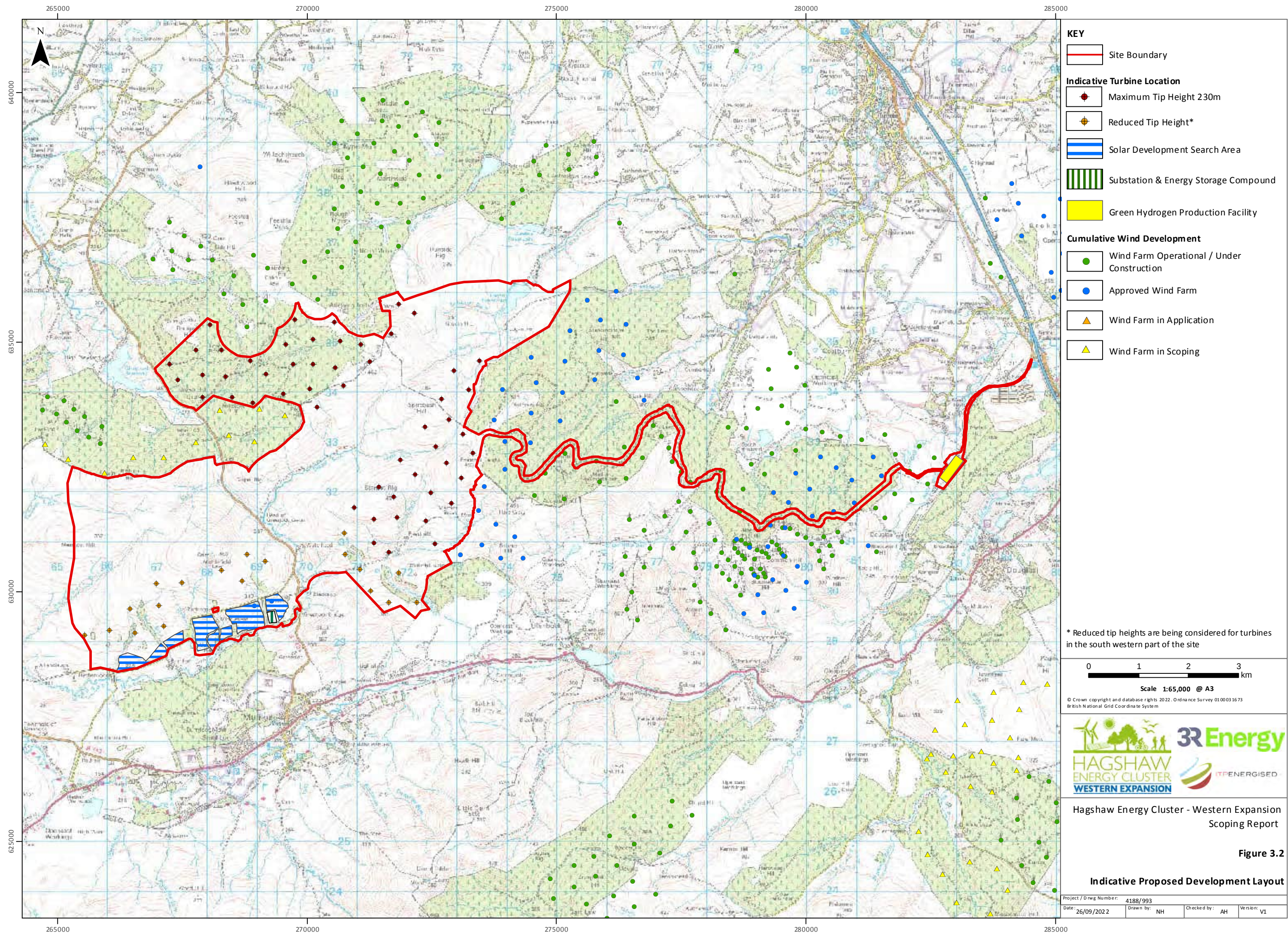


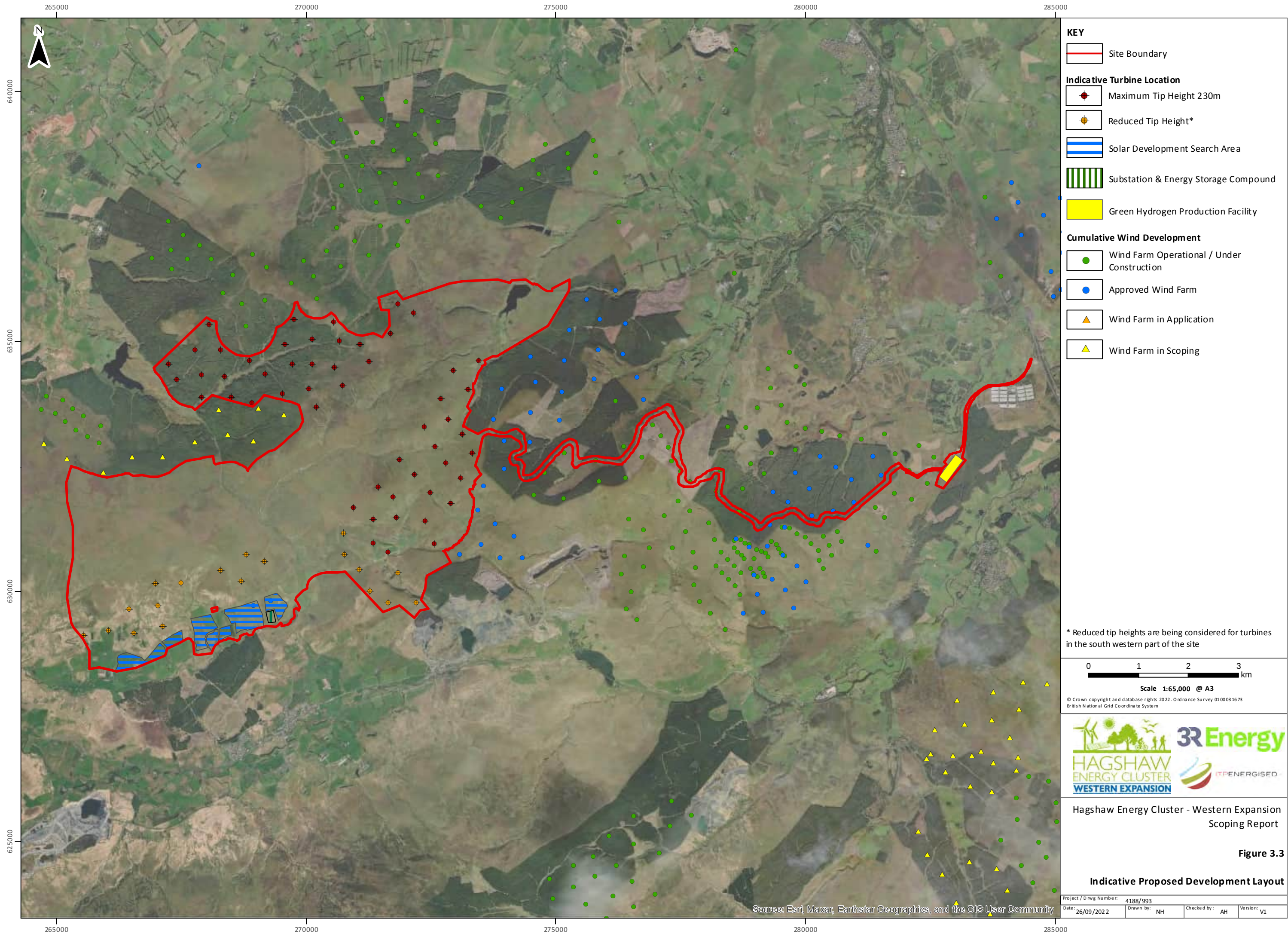


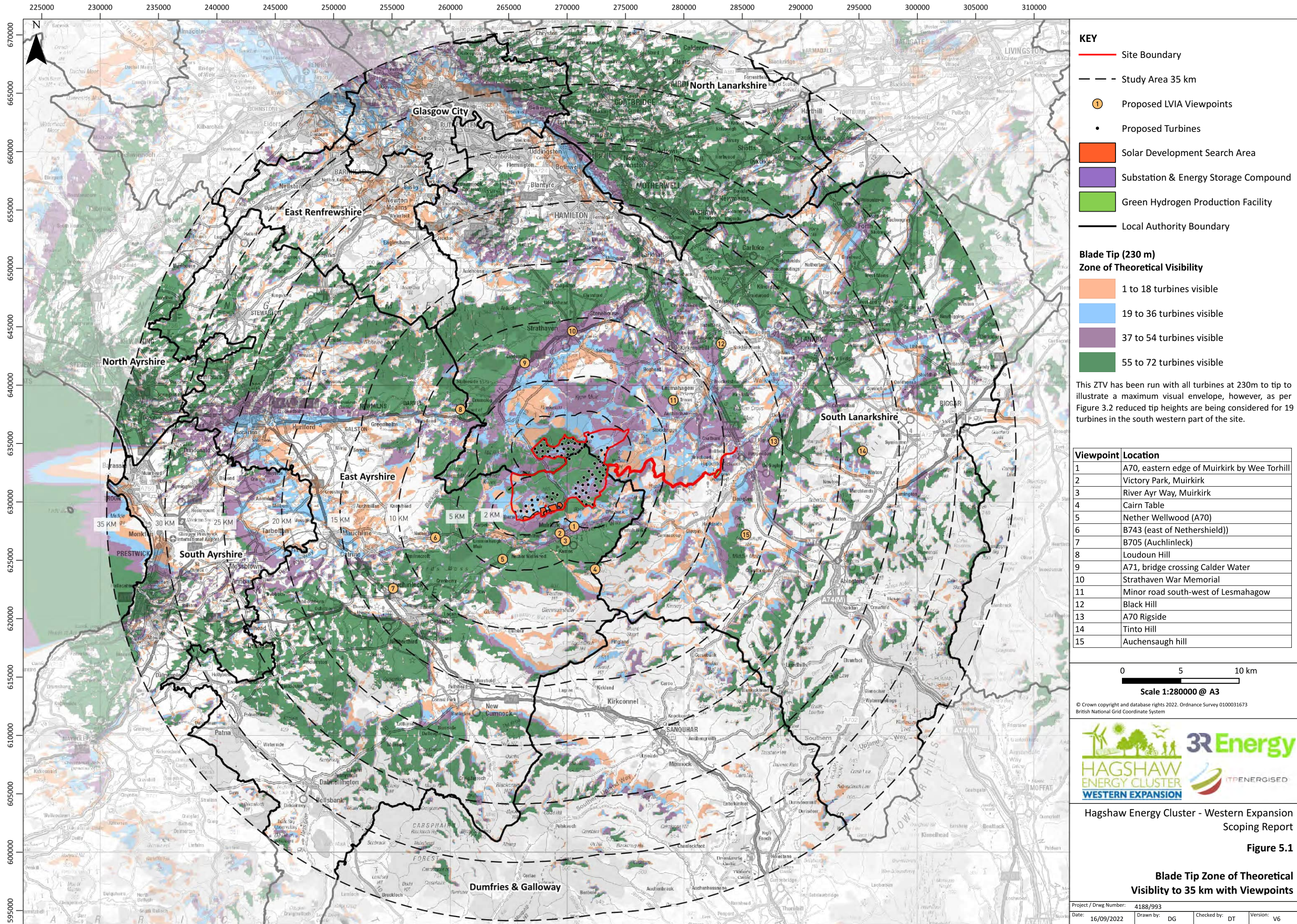
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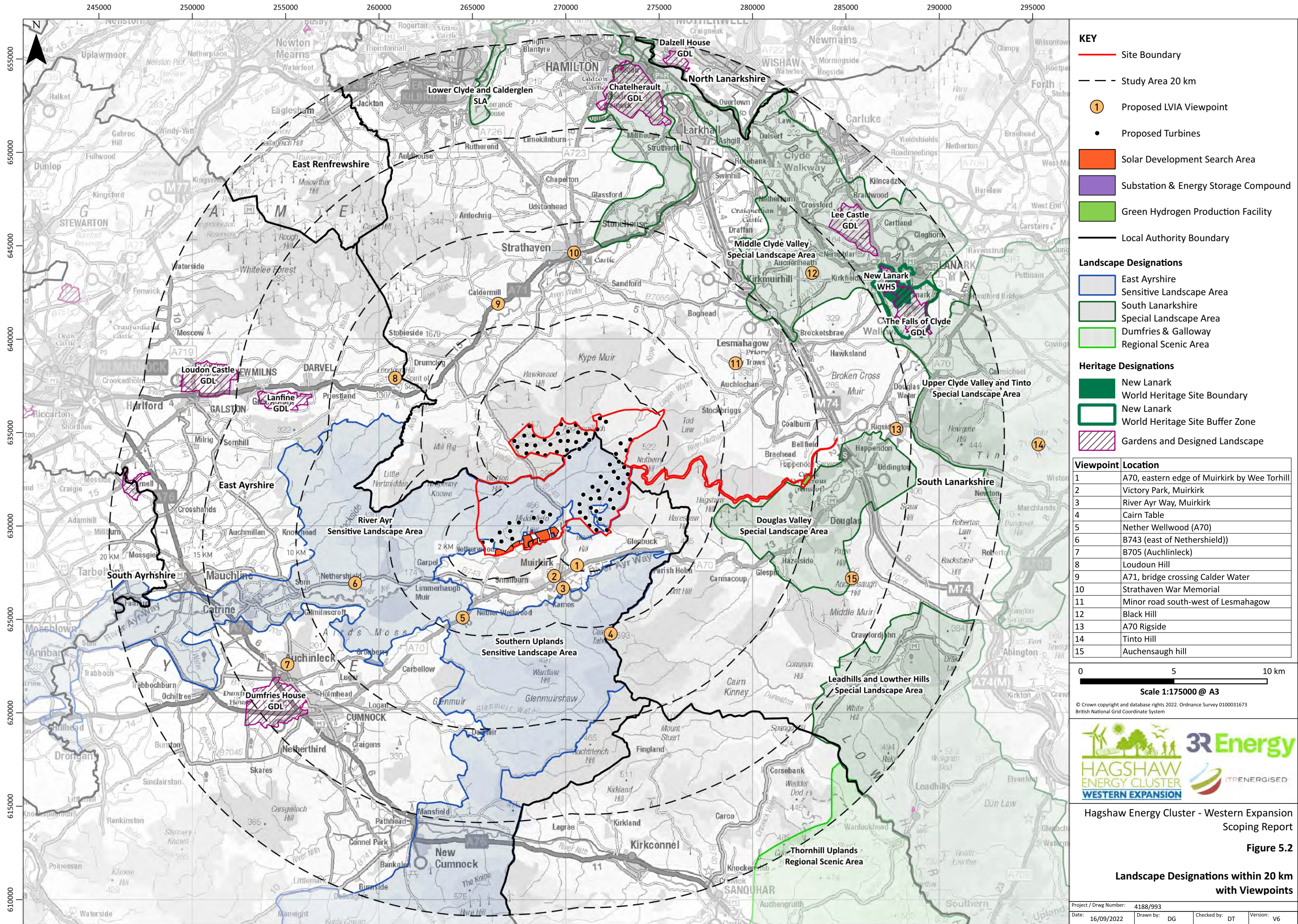


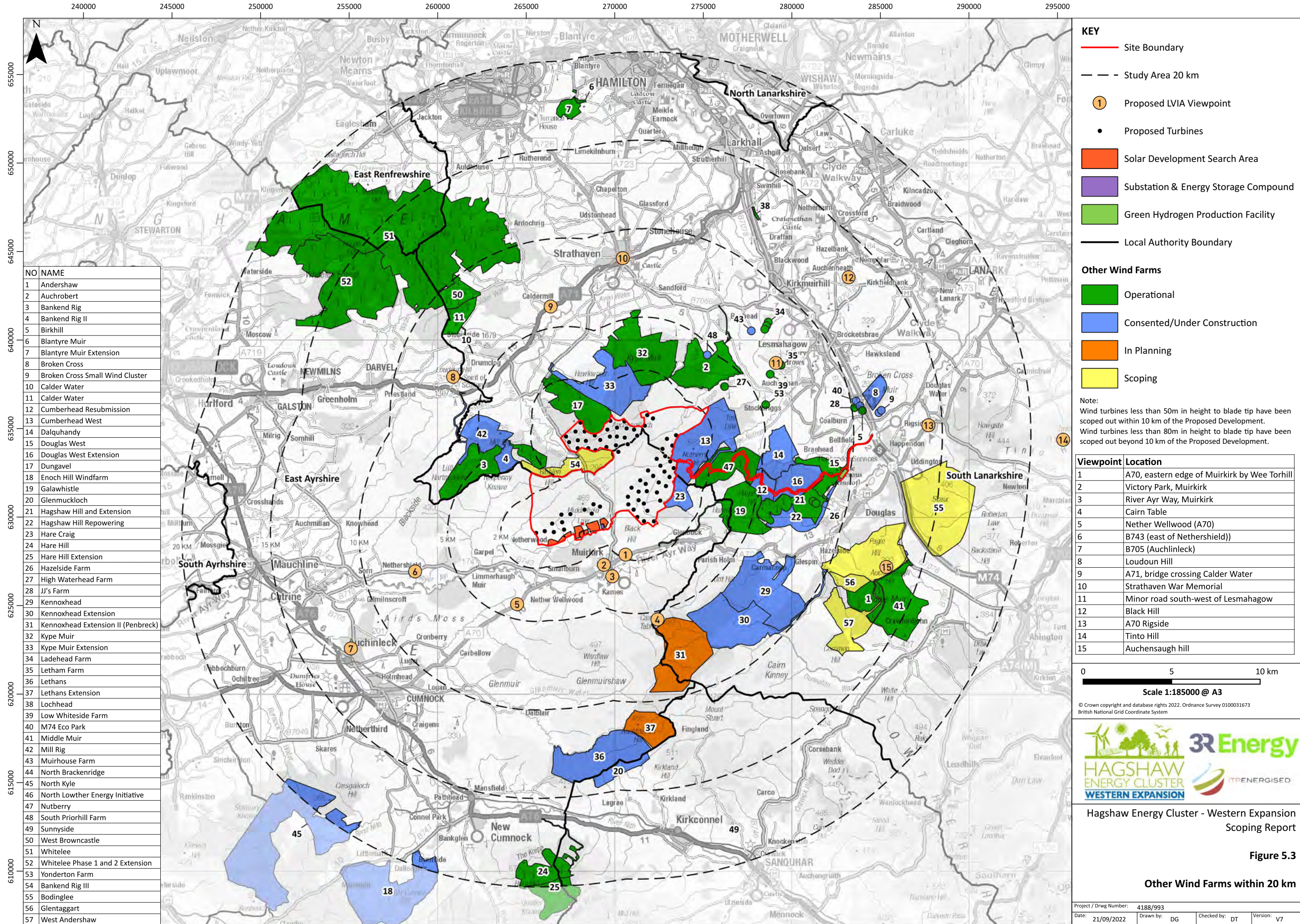


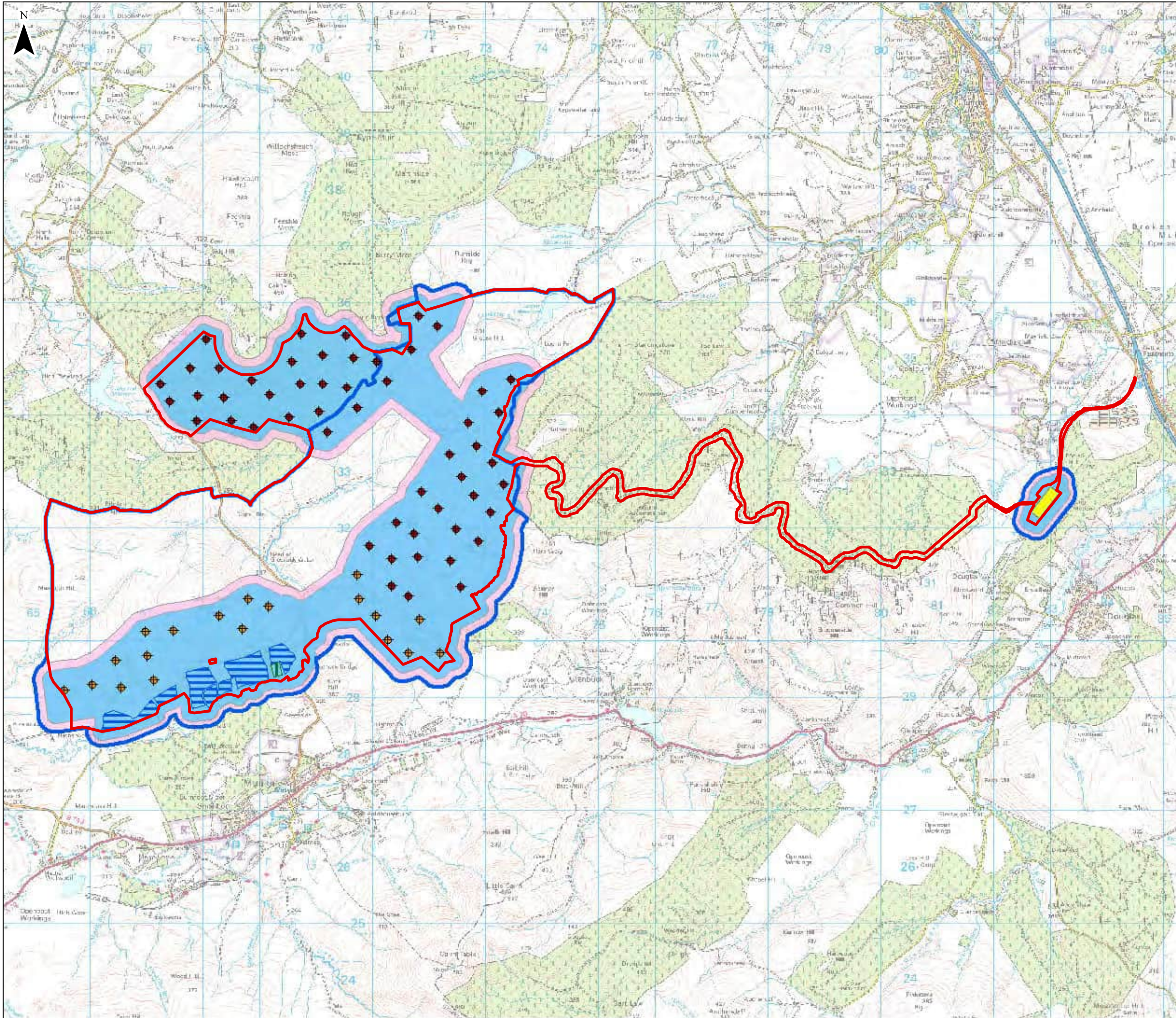








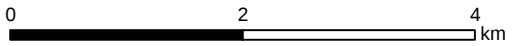




KEY

- Site Boundary
- Indicative Turbine Location**
 - Maximum Tip Height 230m
 - Reduced Tip Height*
- PV Development Search Areas
- Substation & Energy Storage Compound
- Green Hydrogen Production Facility
- NVC survey Area
- Badger / Pine Marten / Water Vole Survey Area
- Otter Survey Area

* Reduced tip heights are being considered for turbines in the south western part of the site



Scale 1:65,000 @ A3

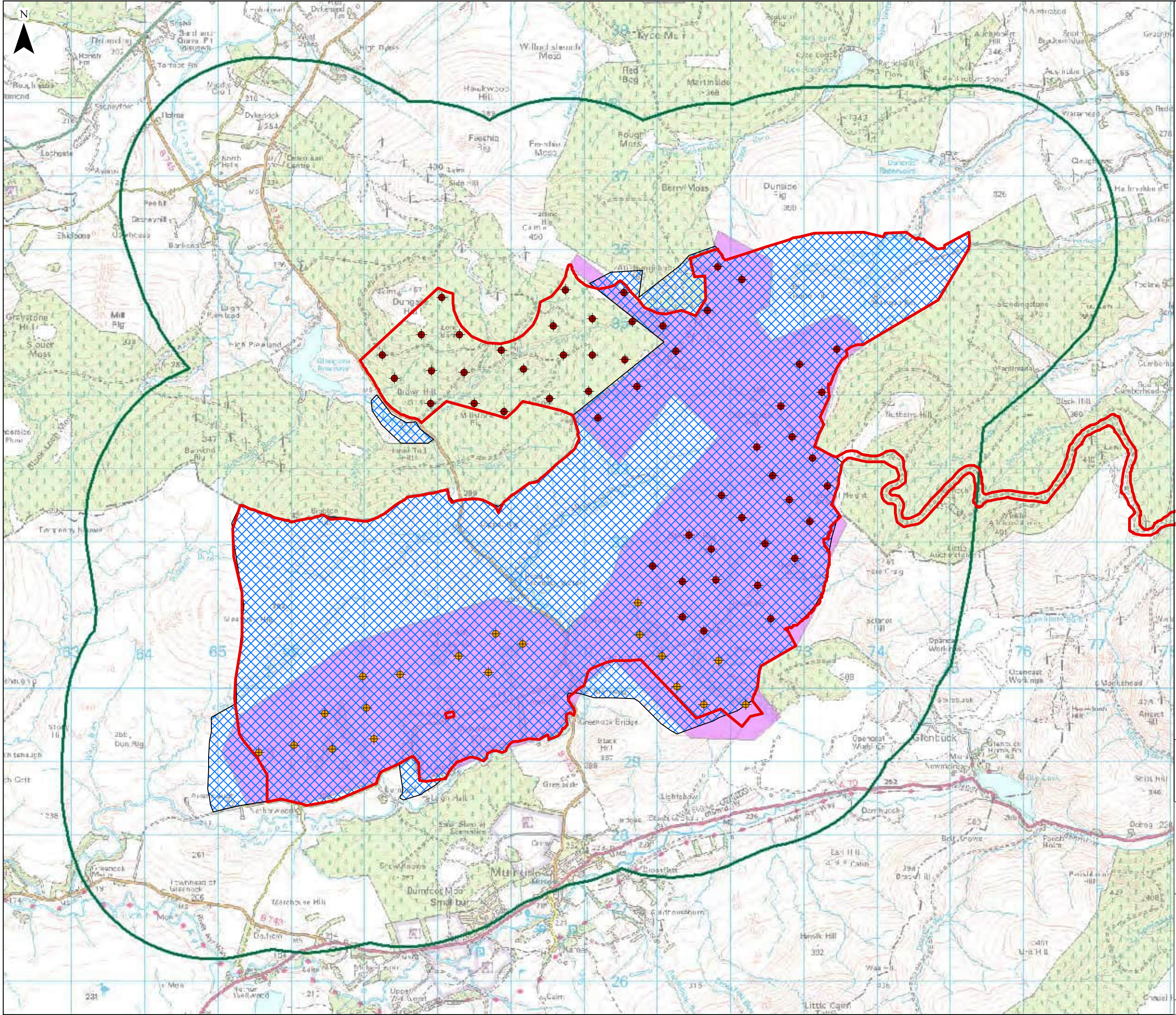


Hagshaw Energy Cluster - Western Expansion
Scoping Report

Figure 6.1

Habitats and Protected Mammals Survey Areas

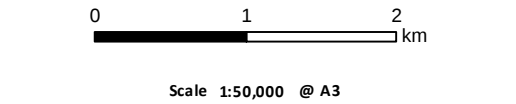
Date: 26/09/2022	Drawn by: NH	Checked by: AT	Version: V1
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KEY

- Site Boundary
- Indicative Turbine Location**
 - Maximum Tip Height 230m
 - Reduced Tip Height*
- Breeding Bird Survey Area
- Winter Walkover Area
- Breeding Raptor Area

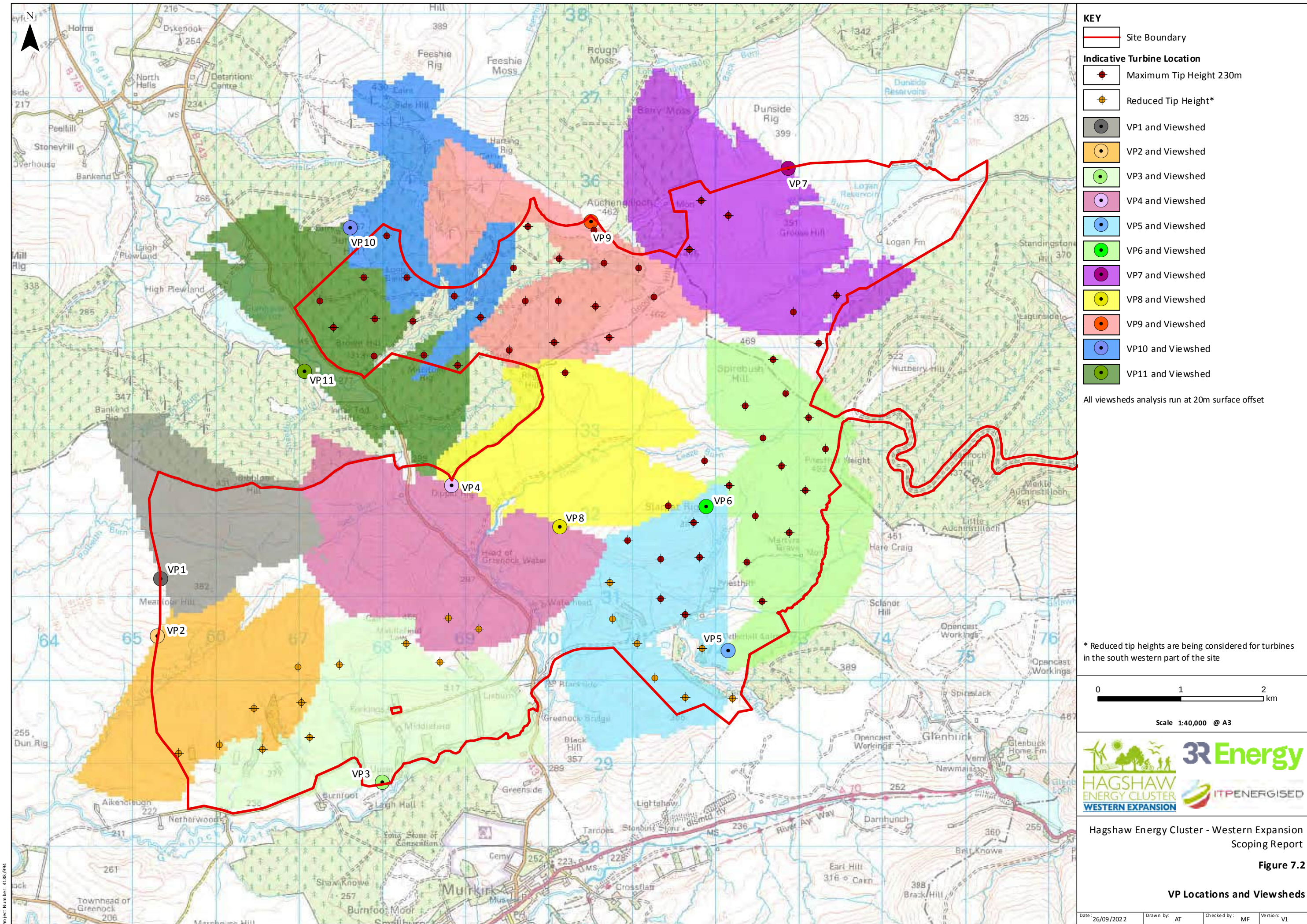
* Reduced tip heights are being considered for turbines in the south western part of the site



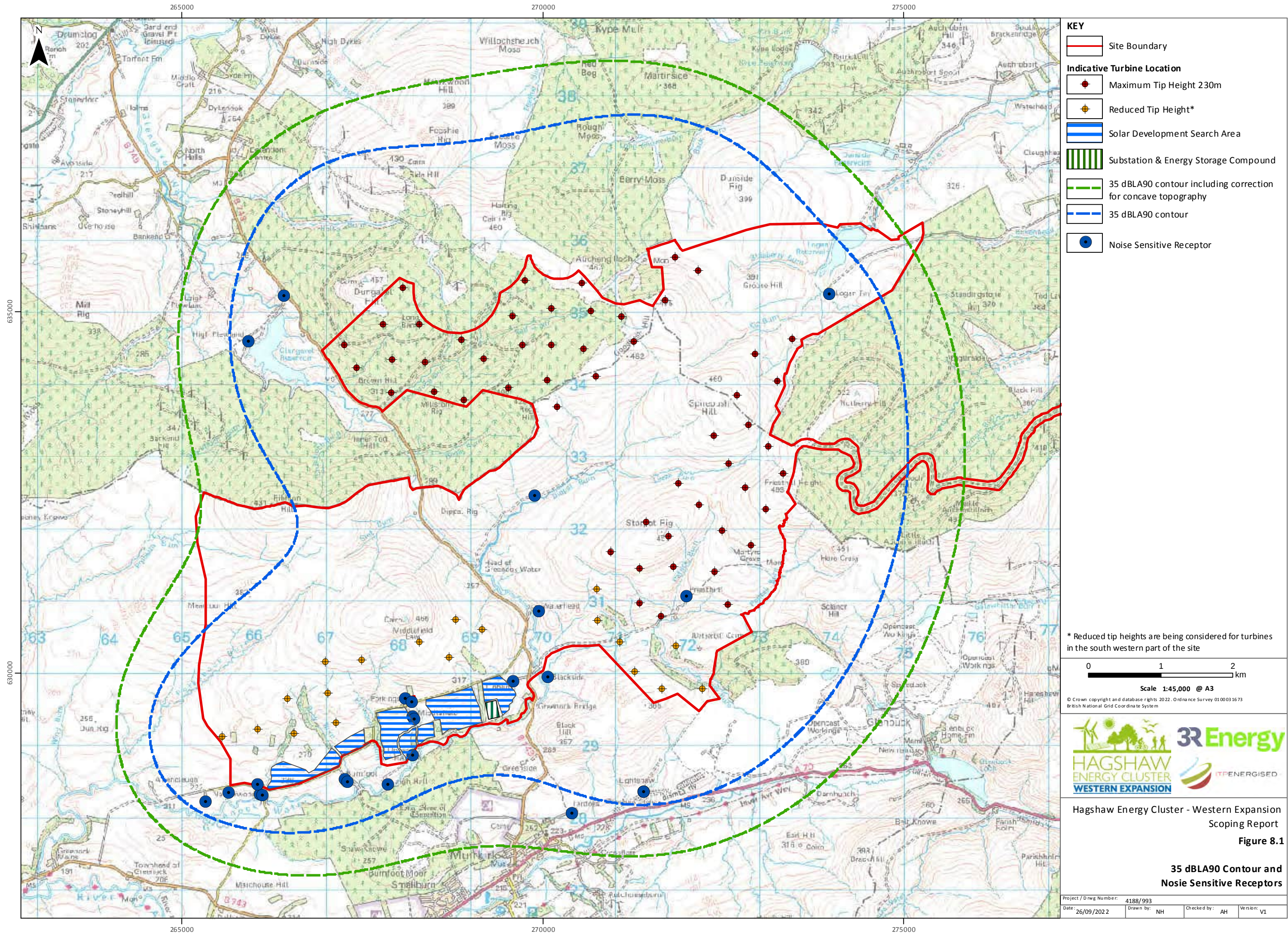
Hagshaw Energy Cluster - Western Expansion
Scoping Report
Figure 7.1

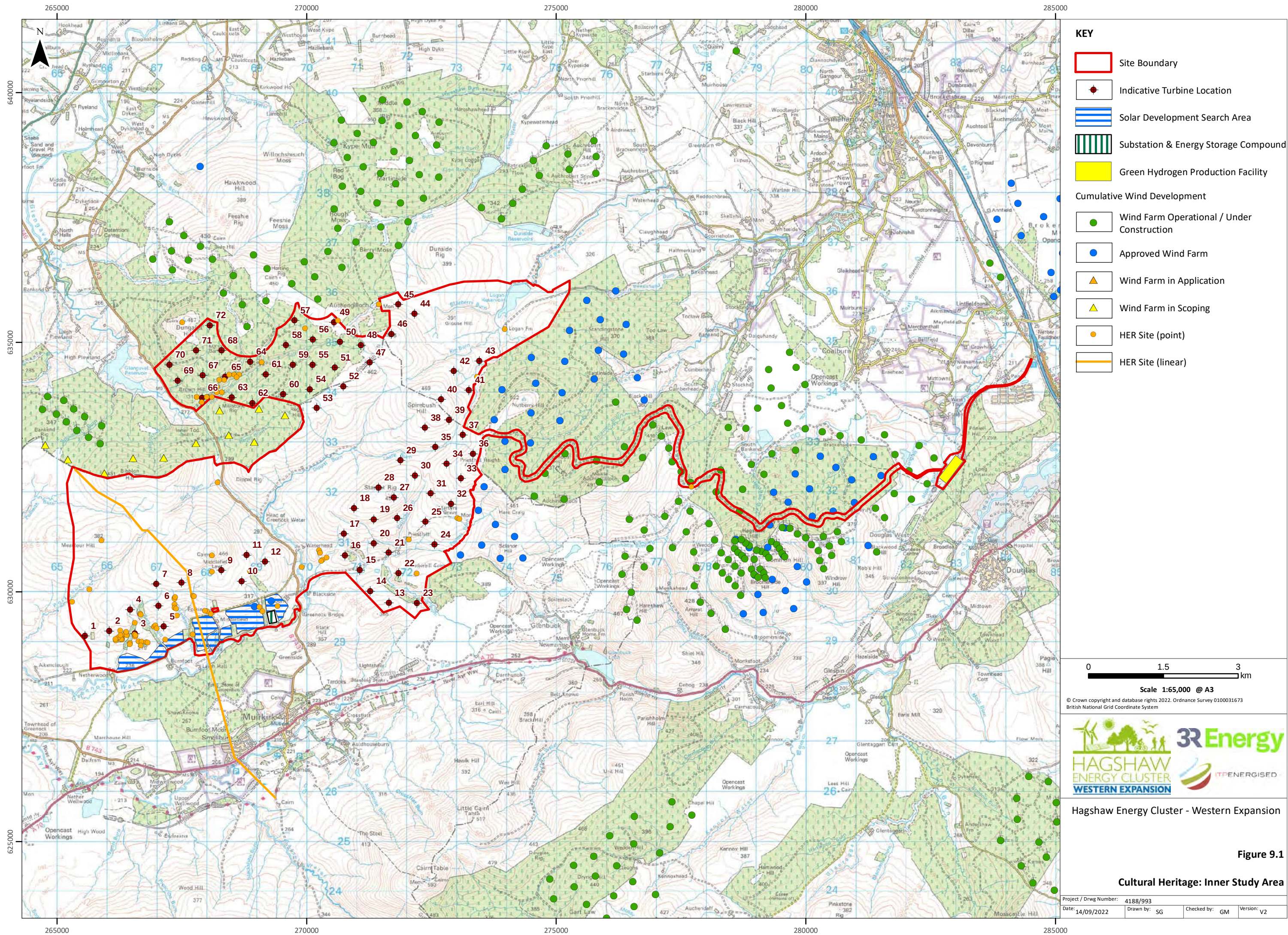
Ornithology Study Areas

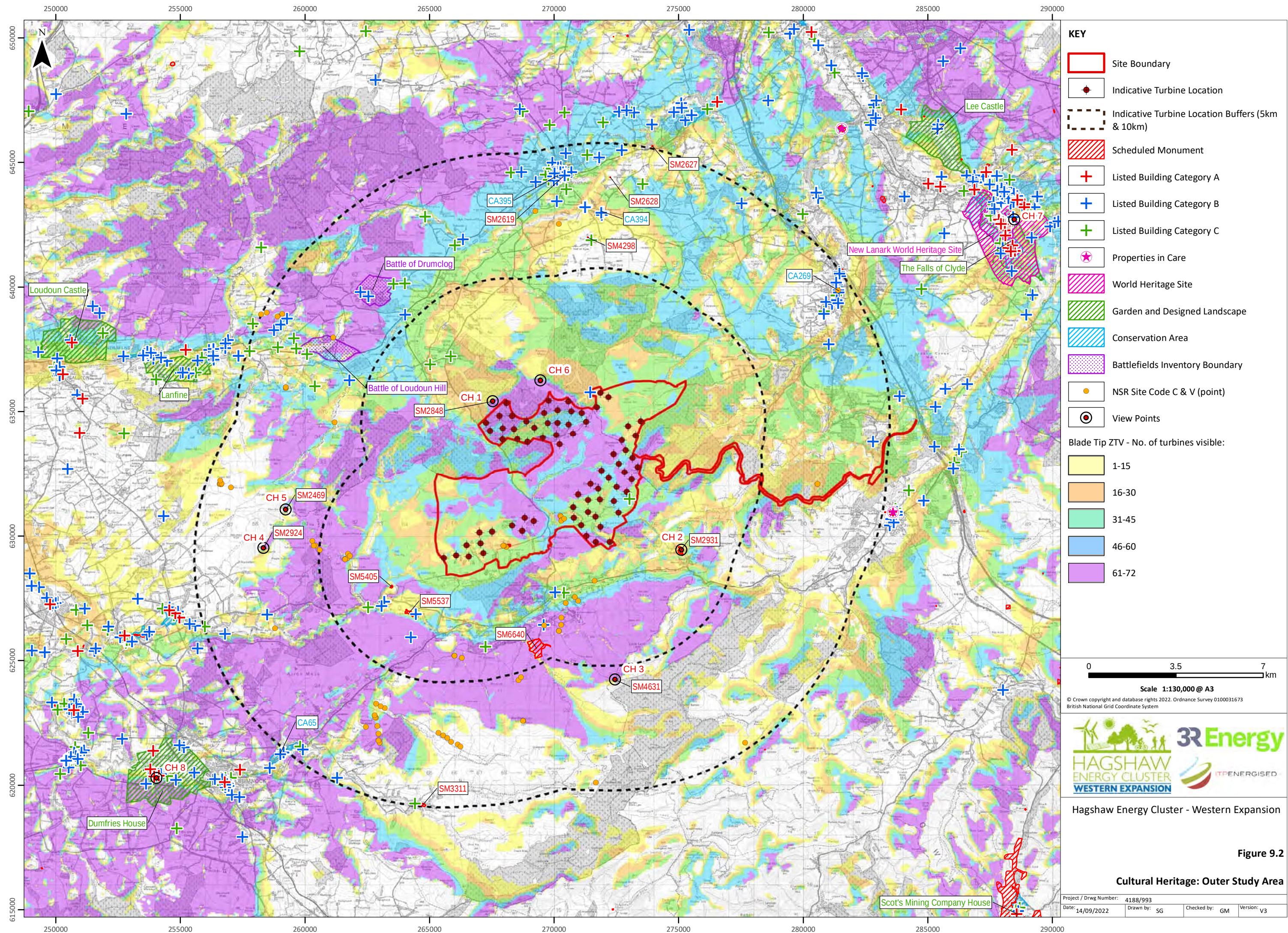
Date: 26/09/2022	Drawn by: AT	Checked by: MF	Version: V1
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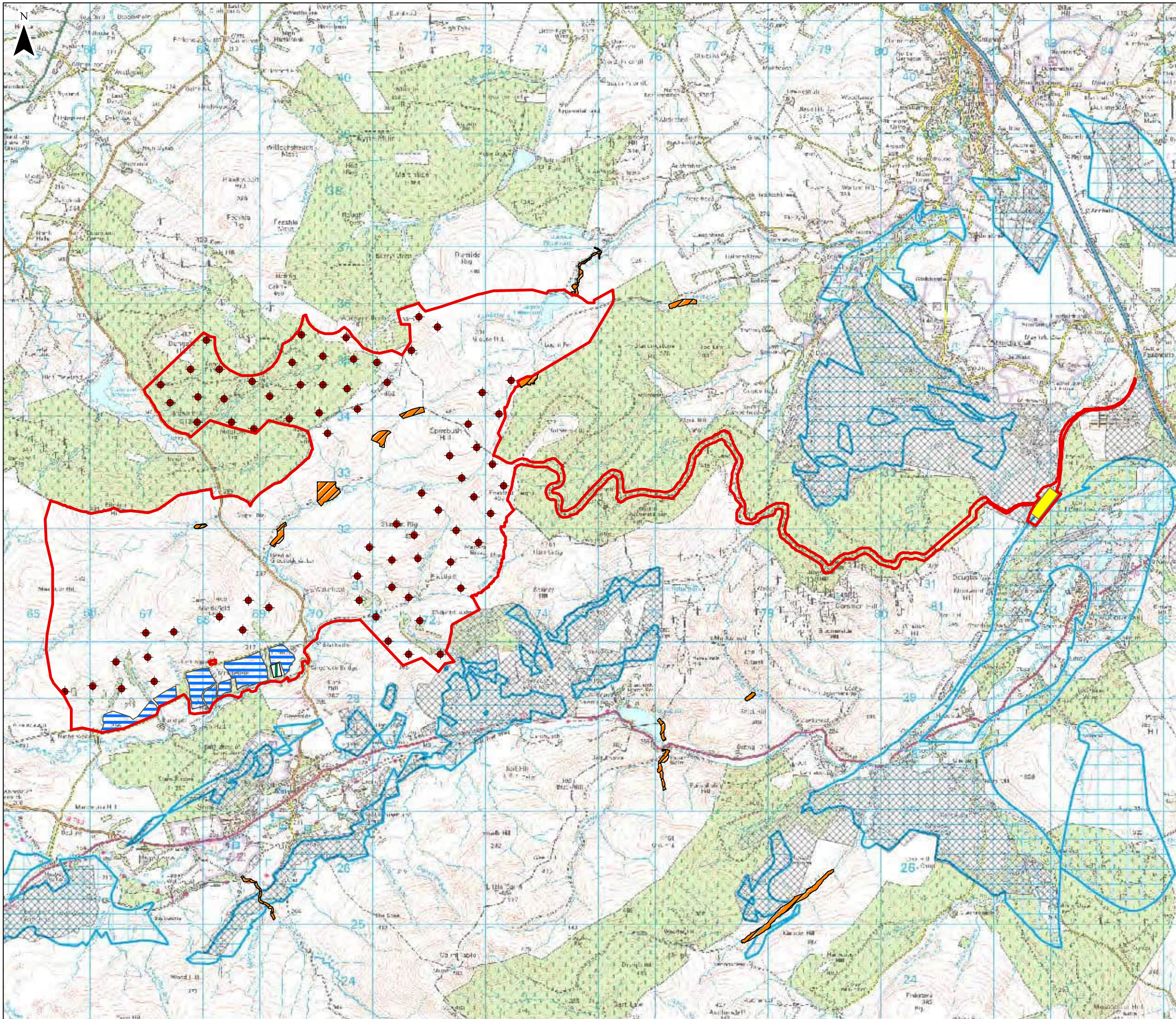


Project Number: 1302/994









- KEY**
- Indicative Red Line Boundary
 - Indicative Turbine Location
 - PV Development Search Areas
 - Substation & Energy Storage Compound
 - Green Hydrogen Production Facility
 - Surface Coal Resource Areas
 - Development High Risk Areas
 - Geological Conservation Review (GCR)



0 1.5 3 km

Scale 1:65,000 @ A3

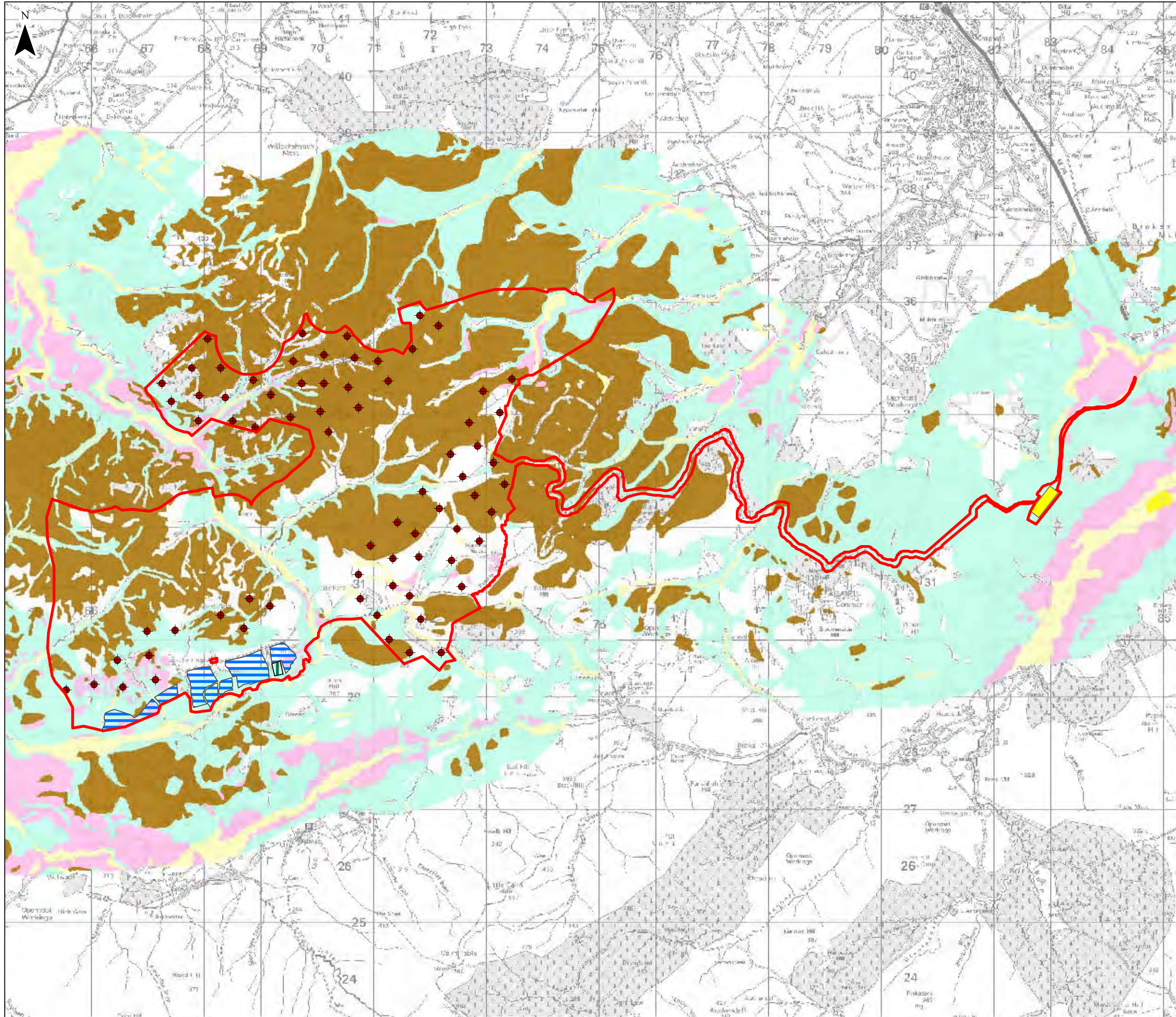


Hagshaw Energy Cluster - Western Expansion
Scoping Report

Figure 10.1

Coal Development High Risk Area & GCR

Date: 26/09/2022 Drawn by: AH Checked by: AH Version: V7

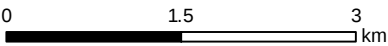


KEY:

- Indicative Red Line Boundary
- Indicative Turbine Location
- PV Development Search Areas
- Substation & Energy Storage Compound
- Green Hydrogen Production Facility

Superficial Geology

- PEAT
- ALLUVIUM - CLAY, SILT, SAND & GRAVEL
- GLACIOFLUVIAL DELTAIC DEPOSITS - GRAVEL, SAND AND SILT
- SUPERFICIAL DEPOSITS - SEDIMENT
- TILL, DEVENSIAN - DIAMICTON



Scale 1:65,000 @ A3

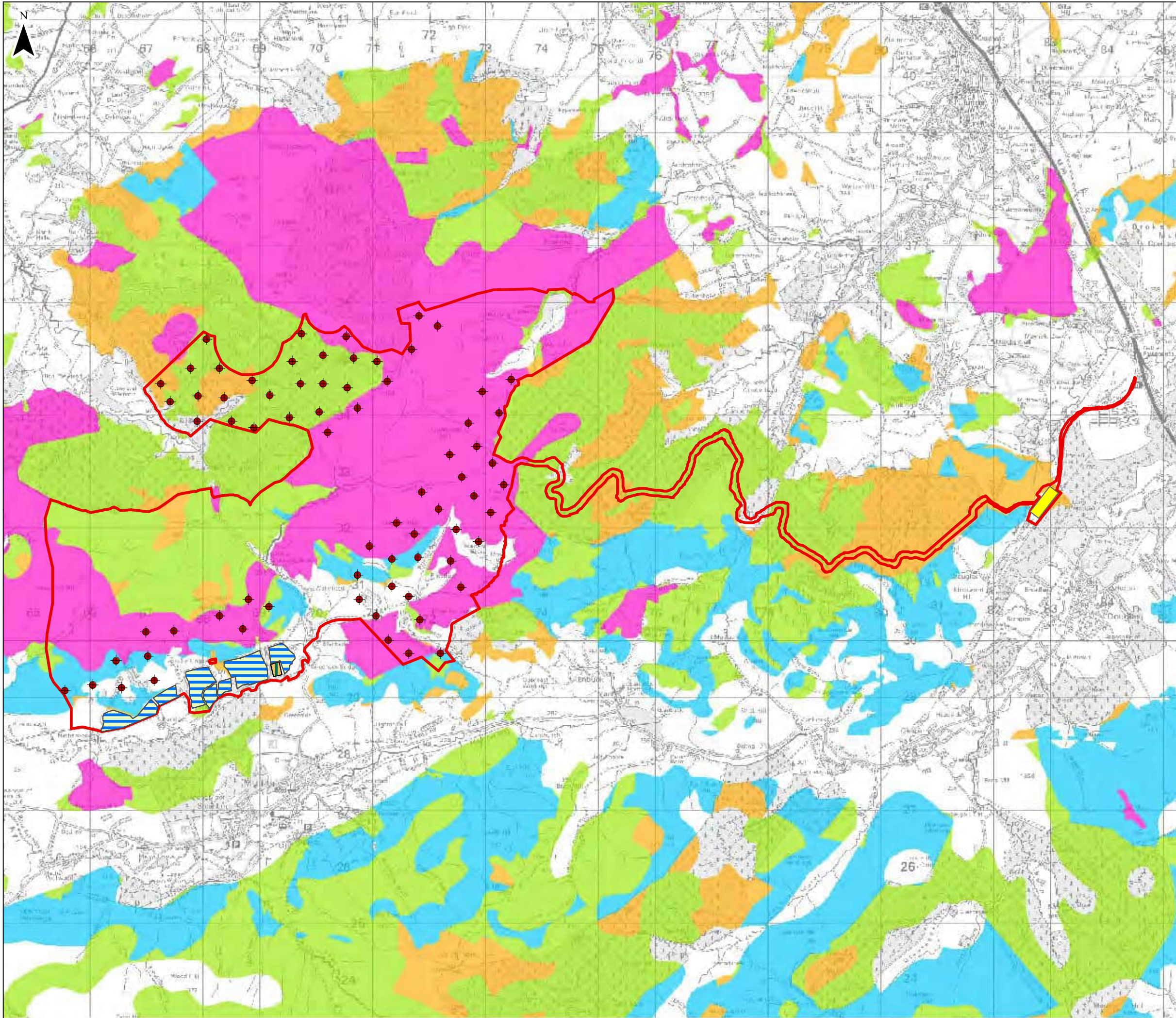


Hagshaw Energy Cluster - Western Expansion
Scoping Report

Figure 10.2

Superficial Geology

Date: 26/09/2022 Drawn by: AH Checked by: AH Version: V7

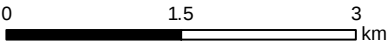


KEY:

- Indicative Red Line Boundary
- Indicative Turbine Location
- PV Development Search Areas
- Substation & Energy Storage Compound
- Green Hydrogen Production Facility

Peatland Classification

- Class 1
- Class 3
- Class 4
- Class 5



Scale 1:65,000 @ A3

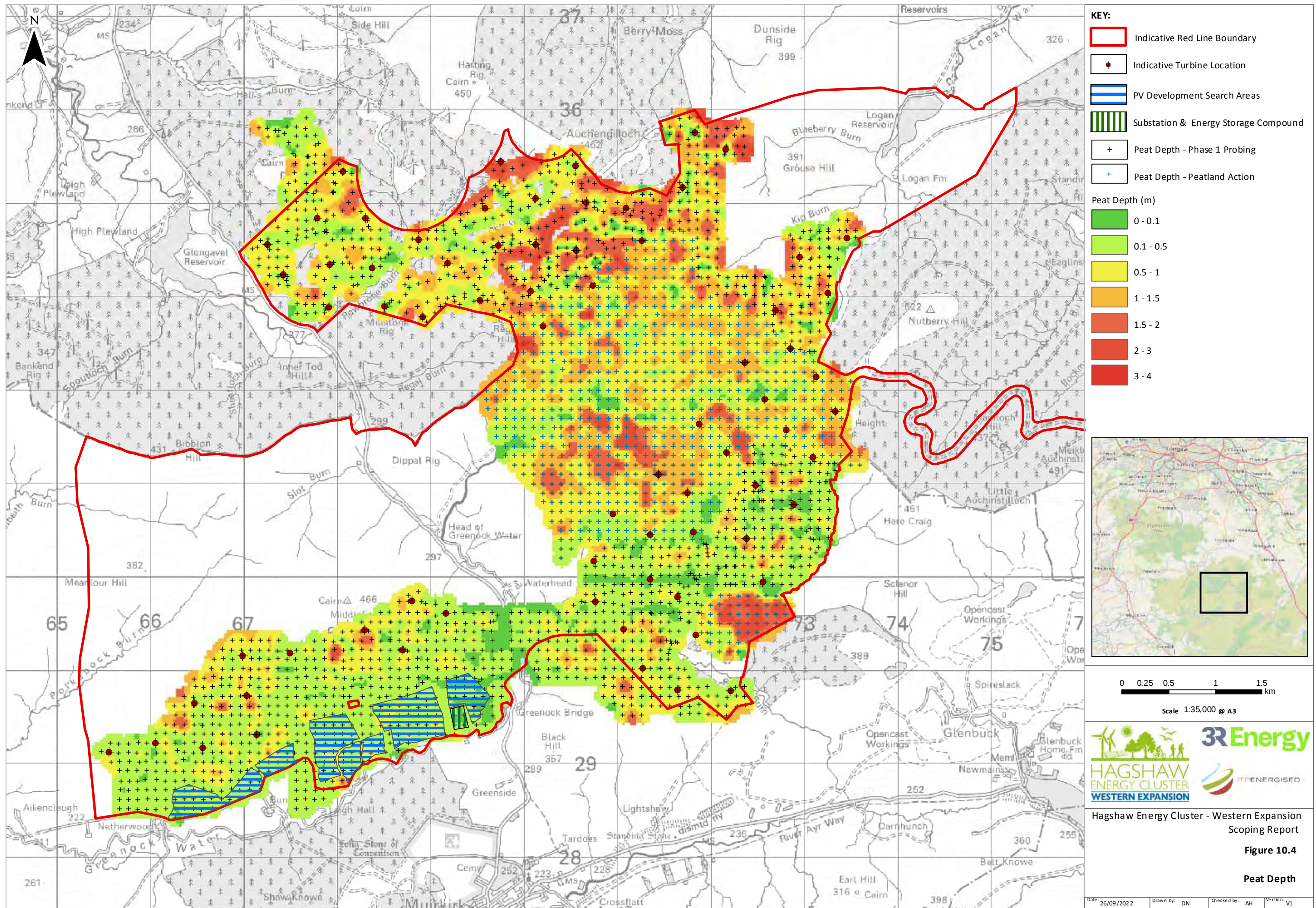


Hagshaw Energy Cluster - Western Expansion
Scoping Report

Figure 10.3

Peat Classification

Date: 26/09/2022	Drawn by: JC	Checked by: AH	Version: V7
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0 0.25 0.5 1 1.5 km

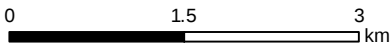
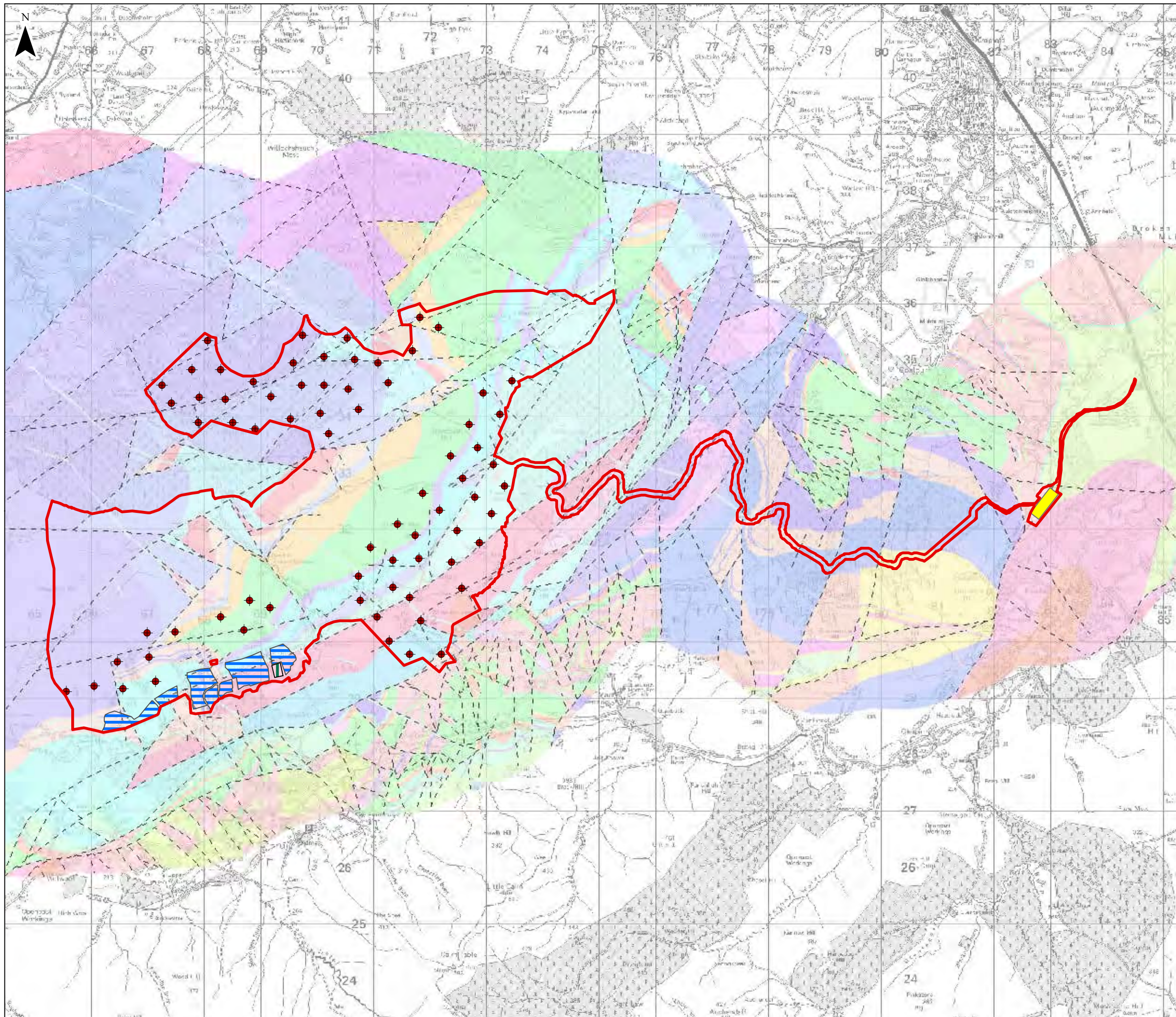
Scale 1:35,000 @ A3



Hagshaw Energy Cluster - Western Expansion
Scoping Report

Figure 10.4

Peat Depth



Scale 1:65,000 @ A3



Hagshaw Energy Cluster - Western Expansion
Scoping Report

Figure 10.5a

Bedrock Geology and Faults

Date: 26/09/2022	Drawn by: AH	Checked by: AH	Version: V7
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KEY:

- Indicative Red Line Boundary
- Indicative Turbine Location
- PV Development Search Areas
- Substation & Energy Storage Compound
- Green Hydrogen Production Facility
- FAULTS

Igneous Bedrock

- MULL DYKE-SWARM - MICROGABBRO
- MIDLAND VALLEY CARBONIFEROUS TO EARLY PERMIAN ALKALINE BASIC SILL SUITE - MICROGABBRO

- SOUTH OF SCOTLAND GRANITIC SUITE - FELSITE
- SOUTH OF SCOTLAND GRANITIC SUITE - MICRODIORITIC-ROCK
- SOUTH OF SCOTLAND GRANITIC SUITE - QUARTZ-PORPHYRY
- SOUTHERN MIDLAND VALLEY FELSITE SILLS - FELSITE
- UNNAMED IGNEOUS INTRUSION OF UNKNOWN AGE - AGGLOMERATE
- UNNAMED IGNEOUS INTRUSION OF UNKNOWN AGE - FELSITE
- UNNAMED IGNEOUS INTRUSION OF UNKNOWN AGE - MAFITE
- DISTINKHORN PLUTON - DIORITE

Sedimentary Bedrock

- SCOTTISH LOWER COAL MEASURES FORMATION - SEDIMENTARY ROCK CYCLES, COAL MEASURE TYPE
- PASSAGE FORMATION - SEDIMENTARY ROCK CYCLES, CLACKMANNAN GROUP TYPE
- UPPER LIMESTONE FORMATION - SEDIMENTARY ROCK CYCLES, CLACKMANNAN GROUP TYPE
- LAWMUIR FORMATION - SEDIMENTARY ROCK CYCLES, STRATHCLYDE GROUP TYPE
- KINNESSWOOD FORMATION - LIMESTONE, NODULAR (CORNSTONE)
- KINNESSWOOD FORMATION - SANDSTONE
- KINNESSWOOD FORMATION - SILICATE-CONGLOMERATE, CALCITE-CEMENTED (CALCRETE)
- BALLAGAN FORMATION - ARGILLACEOUS ROCK, DOLOSTONE AND SANDSTONE

Silurian - Devonian

- SWANSHAW SANDSTONE FORMATION - SANDSTONE
- GREYWACKE CONGLOMERATE FORMATION - CONGLOMERATE

Silurian

- PLEWLAND SANDSTONE FORMATION - SANDSTONE
- MIDDLEFIELD CONGLOMERATE FORMATION - CONGLOMERATE
- GLENBUCK GROUP AND MONKS WATER GROUP (UNDIFFERENTIATED) SANDSTONE, CONGLOMERATE AND [SUBORDINATE] ARGILLACEOUS ROCKS
- WATERHEAD GROUP (CF GLENBUCK GROUP) CONGLOMERATE, SANDSTONE AND SILTSTONE
- LOGAN FORMATION - SANDSTONE, SILTSTONE AND MUDSTONE
- SLOT BURN FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE
- MONUMENT FORMATION - SANDSTONE
- DIPPAL BURN FORMATION - SANDSTONE, SILTSTONE AND MUDSTONE
- BIRKENHEAD SANDSTONE FORMATION - SANDSTONE
- LEAZE FORMATION - SANDSTONE
- DUNSIDE FORMATION - SANDSTONE
- BLAEBERRY FORMATION - MUDSTONE
- KIP BURN FORMATION - MUDSTONE
- CASTLE FORMATION - SILTSTONE
- PATRICK BURN FORMATION - MUDSTONE
- PATRICK BURN FORMATION - WACKE
- PONESK BURN FORMATION - WACKE

Carboniferous - Paleogene

Silurian - Devonian

Carboniferous



Hagshaw Energy Cluster - Western Expansion

Scoping Report

Figure 10.5b

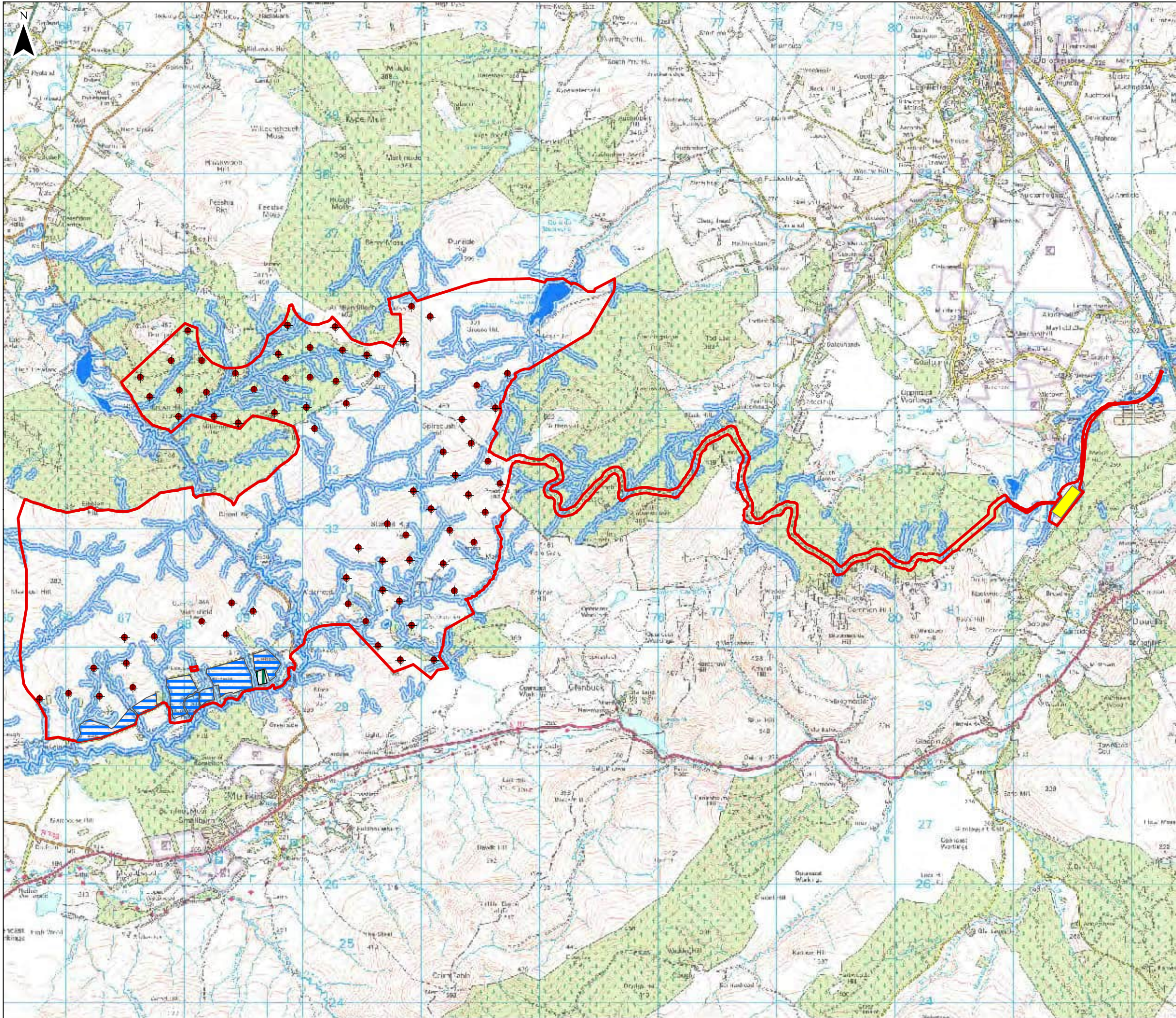
KEY: Bedrock Geology and Faults

Date: 26/09/2022

Drawn by: JC

Checked by: AH

Version: V7



- KEY:**
- Indicative Red Line Boundary
 - Indicative Turbine Location
 - PV Development Search Areas
 - Substation & Energy Storage Compound
 - Green Hydrogen Production Facility
 - Watercourses and Waterbodies
 - 50m Watercourses & Waterbodies Buffer



0 1.5 3 km

Scale 1:62,000 @ A3



Hagshaw Energy Cluster - Western Expansion
Scoping Report

Figure 10.6

Watercourses and Waterbodies

Date: 26/09/2022 Drawn by: JC Checked by: AH Version: V7



HAGSHAW ENERGY CLUSTER

WESTERN EXPANSION

3R Energy

3R Energy Solutions Limited,
Lanark Auction Market, Hyndford Road, Lanark ML11 9AX.
T: 01555 660244 E: info@3renergy.co.uk W: www.3renergy.co.uk