



**Legend**

- Substations

**GILLESPIES WSP**

**Notes**

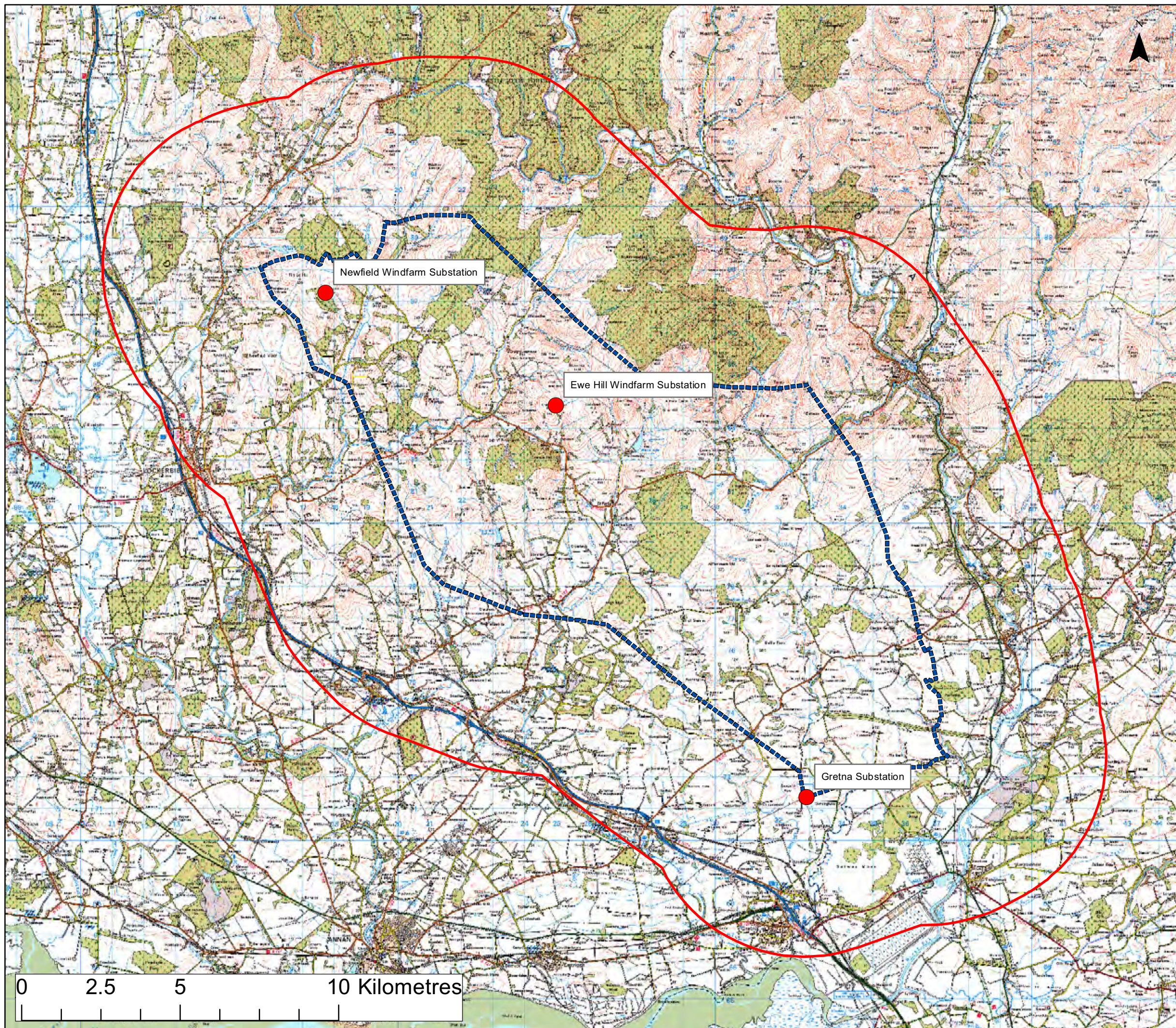
**Figure 1.1**  
**Project Context Plan**

Size: A3  
 Scale: Not to Scale  
 Project: Gretna Substation to Ewe Hill and Newfield Windfarms




**SP TRANSMISSION**

Date: 05.07.10  
 Revision: -  
 Drawn by: AD  
 Checked by: AR





**Legend**

-  Study Area
-  Buffer Area
-  Substation Locations



**Notes**

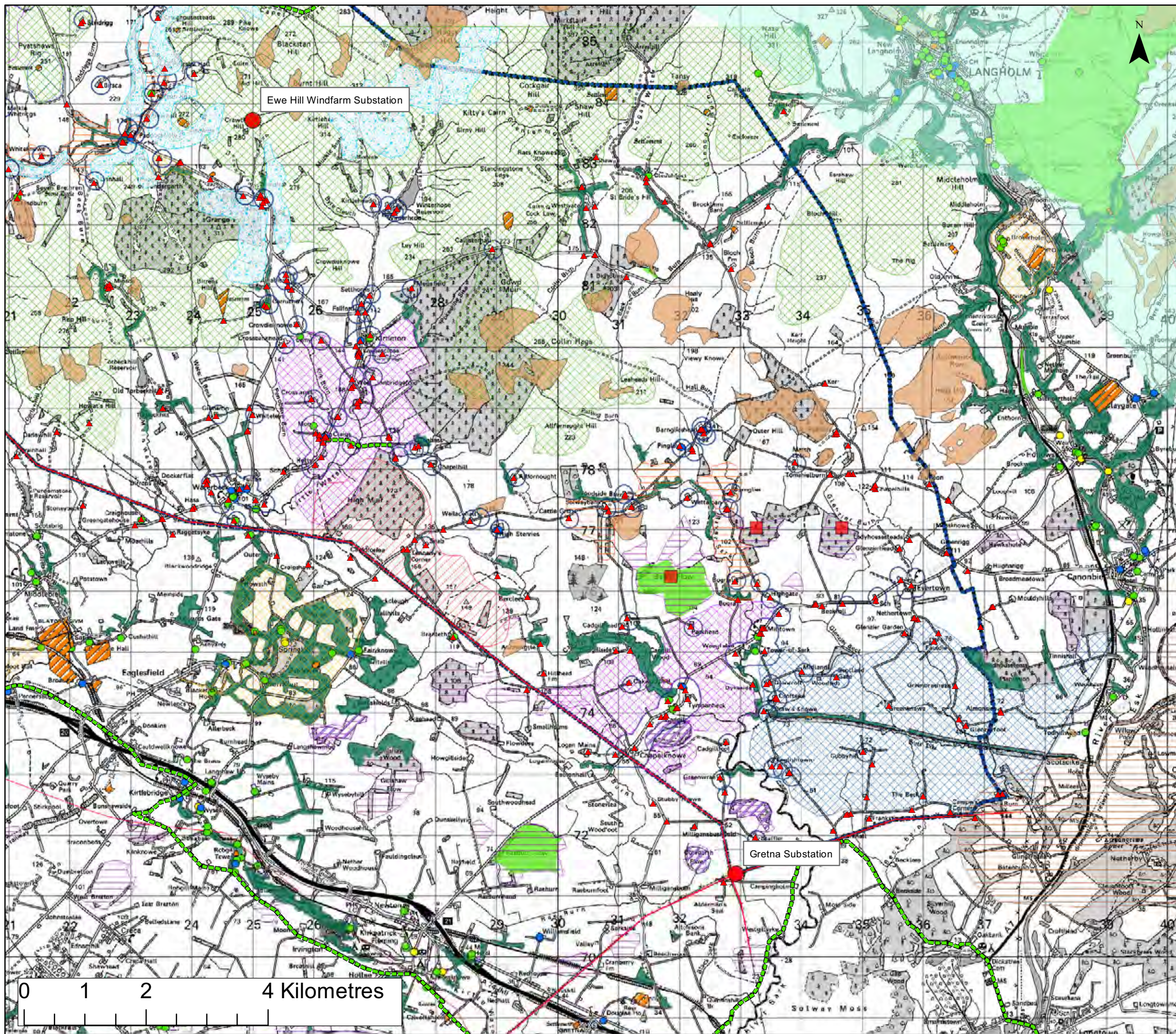
**Figure 2.1**  
Study Area, Buffer Area and Substation Locations

Size: A3  
Scale: Not to Scale  
Project: Gretna Substation to Ewe Hill and Newfield Windfarms



Date: 05.07.10  
Revision: -  
Drawn by: AD  
Checked by: AR





### Legend

- Study Area
  - Existing Transmission Lines
  - Substation
- Environmental Constraints**
- Site of Special Scientific Interest
  - Ancient Woodland Inventory Site
  - Local Wildlife Site
  - Intermediate Bog Inventory Site
  - Blanket Bog
  - Bog / Mire
  - Scheduled Ancient Monument
  - Category A Listed Building
  - Category B Listed Building
  - Category C Listed Building
  - Residential Property
  - Right of Way

- Landscape Constraints**
- Residential Settlements (150m buffer)
  - Regional Scenic Area
  - Non-Inventory Designated Landscape
  - Landscape of County Importance (Cumbria County Council)
  - 'Double climbing'
  - Impact setting of historic features
  - Intimate landscapes
  - Varied topography and slopes
  - Upland landscapes
  - Impact views from settlements



### Notes

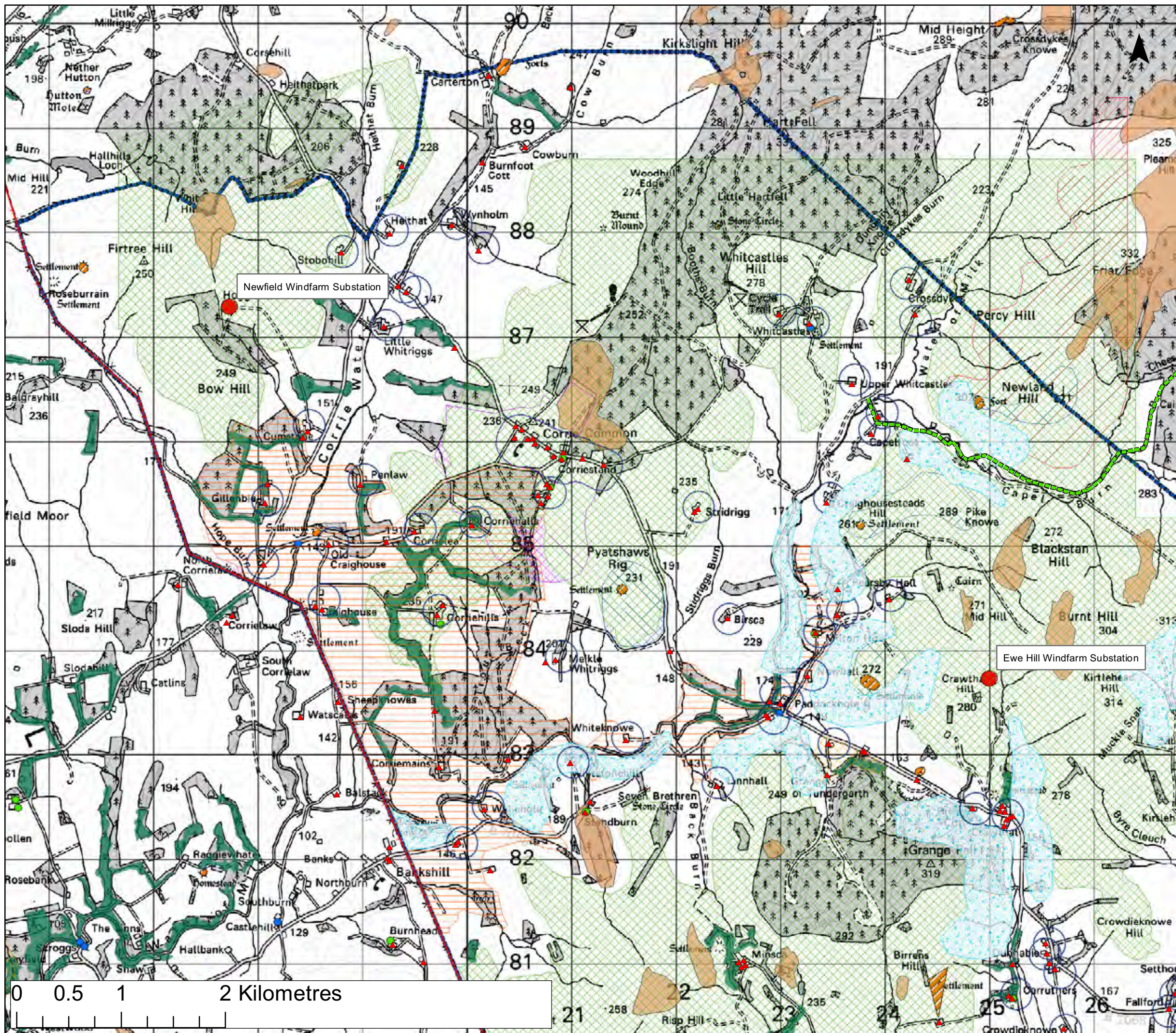
Figure 2.2A  
Gretna to Ewe Hill - Constraints Map

Size: A3  
Scale: Not to Scale  
Project: Gretna Substation to Ewe Hill and Newfield Windfarms

Date: 06.07.10  
Revision: -  
Drawn by: AD  
Checked by: AR

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**Legend**

- Study Area
- Existing Transmission Lines
- Substation
- Environmental Constraints**
- Site of Special Scientific Interest
- Ancient Woodland Inventory Site
- Local Wildlife Site
- Intermediate Bog Inventory Site
- Blanket Bog
- Bog / Mire
- Scheduled Ancient Monument
- Category A Listed Building
- Category B Listed Building
- Category C Listed Building
- ▲ Residential Property
- Right of Way
- Landscape Constraints**
- Non-Inventory Designated Landscape
- Regional Scenic Area
- 'Double climbing'
- Impact setting of historic features
- Intimate landscapes
- Residential receptor (150m buffer)
- Varied topography and slopes
- Upland landscapes
- Impact views from settlements



**Notes**

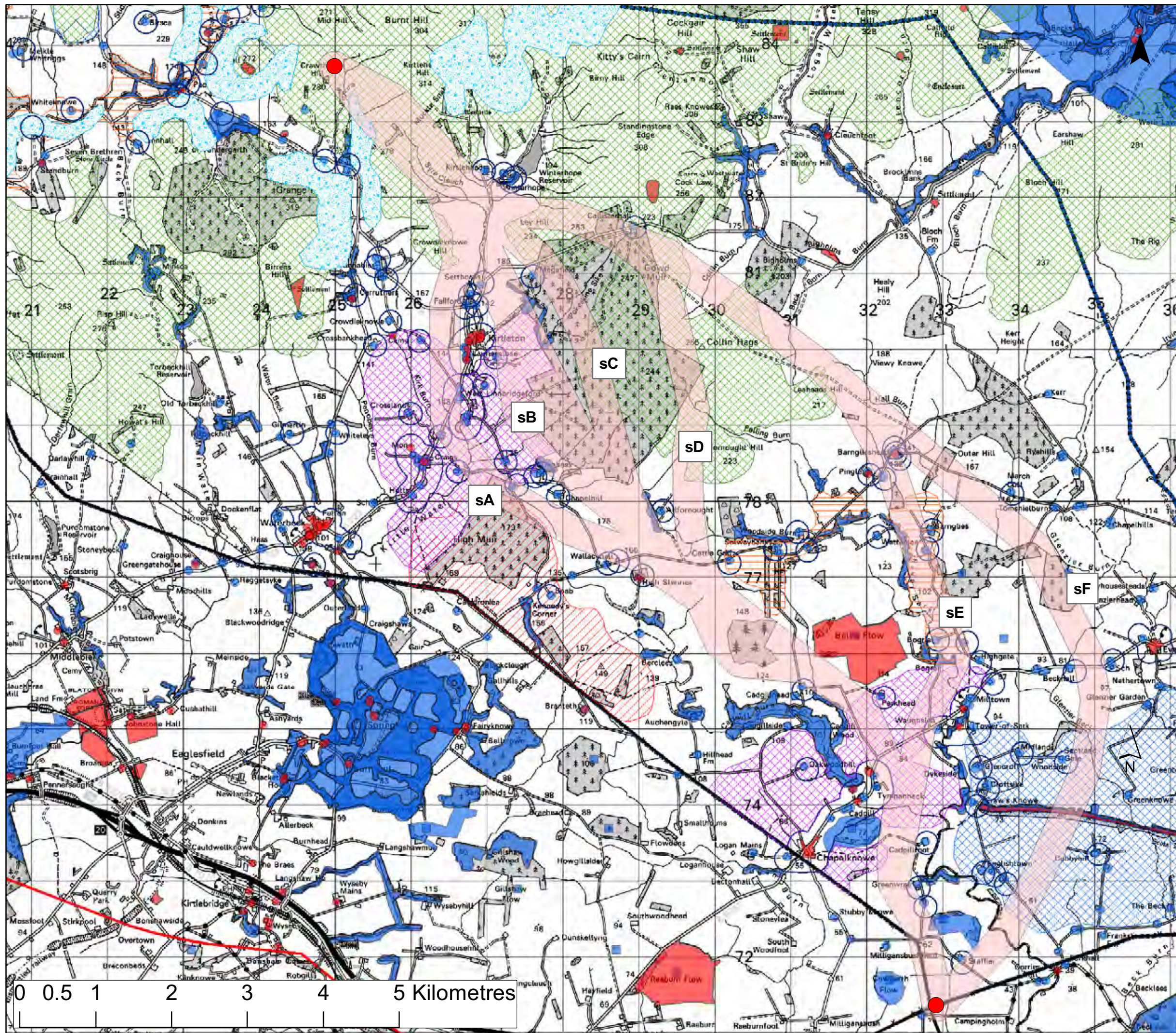
Figure 2.2b  
 Ewe Hill to Newfield -  
 Constraints Map  
 Size: A3  
 Scale: Not to Scale  
 Project: Greta Substation to Ewe Hill  
 and Newfield Windfarms



|  |             |          |
|--|-------------|----------|
|  | Date:       | 06.07.10 |
|  | Revision:   | -        |
|  | Drawn by:   | AD       |
|  | Checked by: | AR       |
|  |             |          |

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**Legend**

- Study Area
- Substation Locations
- Narrow Corridor
- Highest amenity constraints
- High amenity constraints
- Impact on views from settlements
- Impact on setting of historic features
- Varied topography and slopes
- Upland landscape
- Intimate landscape
- 'Double climbing'



**Notes**

Ridge lines, summits and plateaus have not been annotated but have been considered, as read off the OS base mapping.

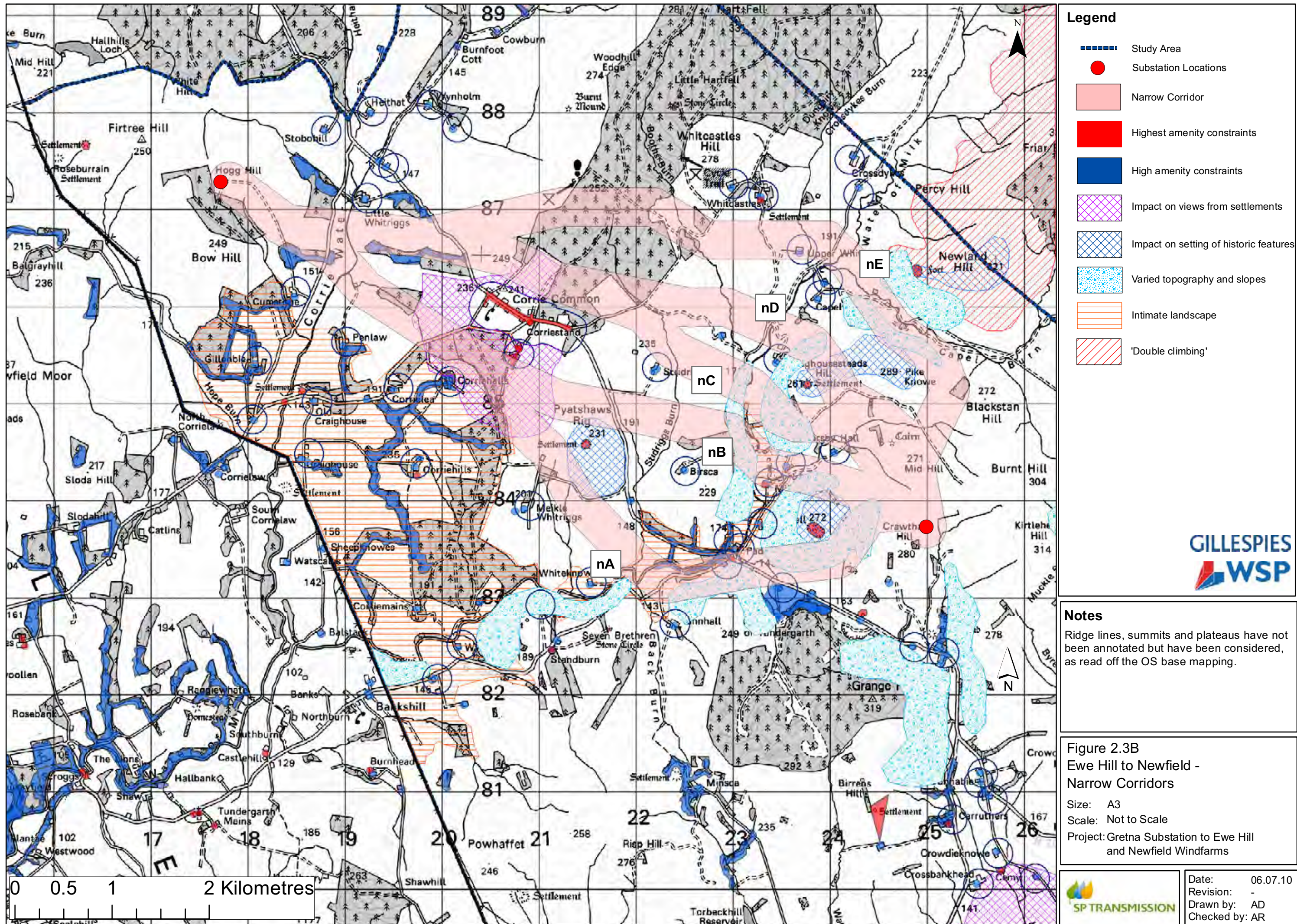
**Figure 2.3A**  
**Gretna to Ewe Hill -**  
**Narrow Corridors**

Size: A3  
 Scale: Not to Scale  
 Project: Gretna Substation to Ewe Hill  
 and Newfield Windfarms



Date: 06.07.10  
 Revision: -  
 Drawn by: AD  
 Checked by: AR





### Legend

- Study Area
- Substation Locations
- Narrow Corridor
- Highest amenity constraints
- High amenity constraints
- Impact on views from settlements
- Impact on setting of historic features
- Varied topography and slopes
- Intimate landscape
- 'Double climbing'

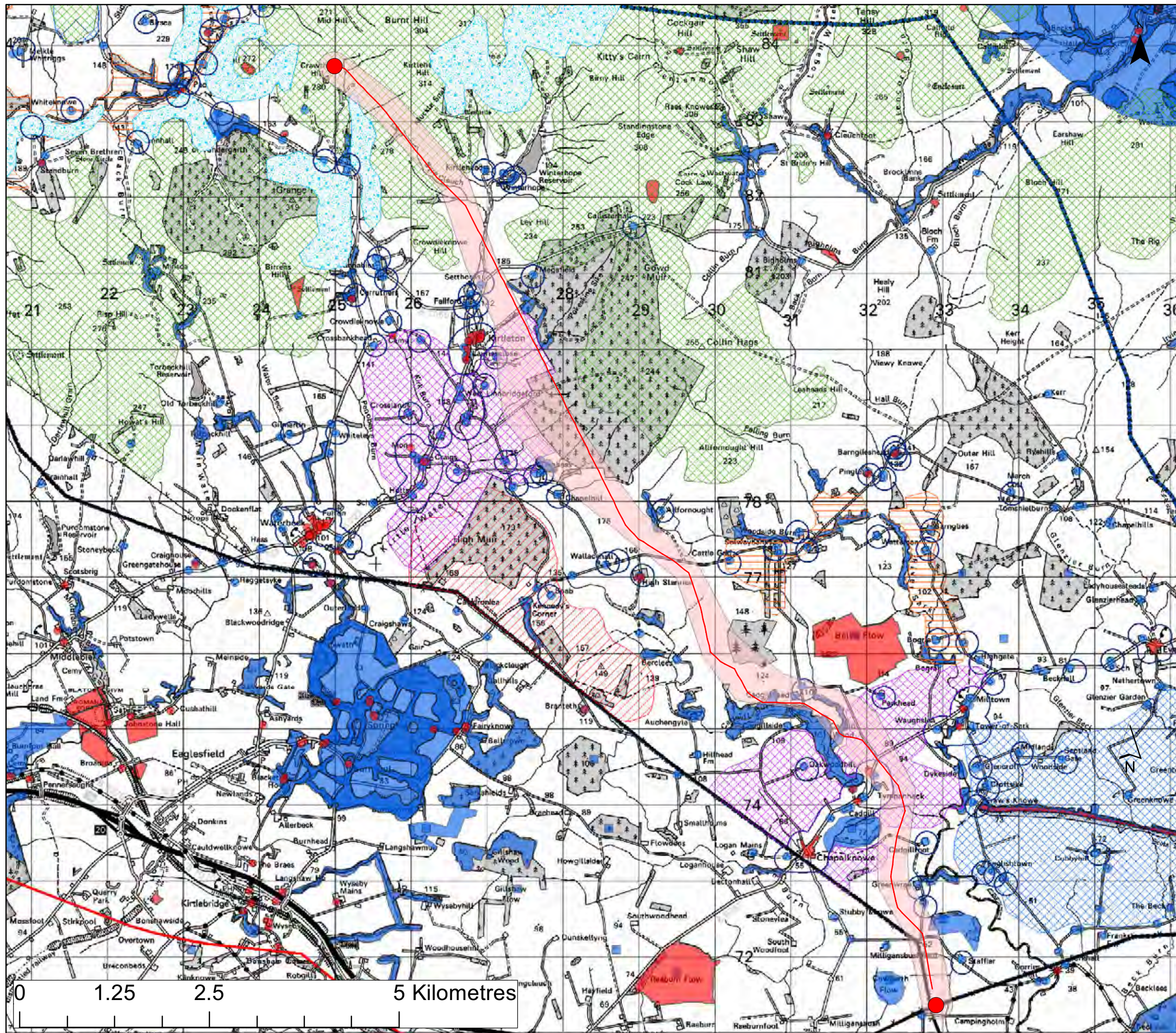


**Notes**  
 Ridge lines, summits and plateaus have not been annotated but have been considered, as read off the OS base mapping.

**Figure 2.3B**  
 Ewe Hill to Newfield -  
 Narrow Corridors  
 Size: A3  
 Scale: Not to Scale  
 Project: Gretna Substation to Ewe Hill  
 and Newfield Windfarms

Date: 06.07.10  
 Revision: -  
 Drawn by: AD  
 Checked by: AR





### Legend

- Study Area
- Substation Locations
- Narrow Corridor
- Highest amenity constraints
- High amenity constraints
- Impact on views from settlements
- Impact on setting of historic features
- Varied topography and slopes
- Upland landscape
- Intimate landscape
- 'Double climbing'
- Preferred Route Alignment

**GILLESPIES  
WSP**

### Notes

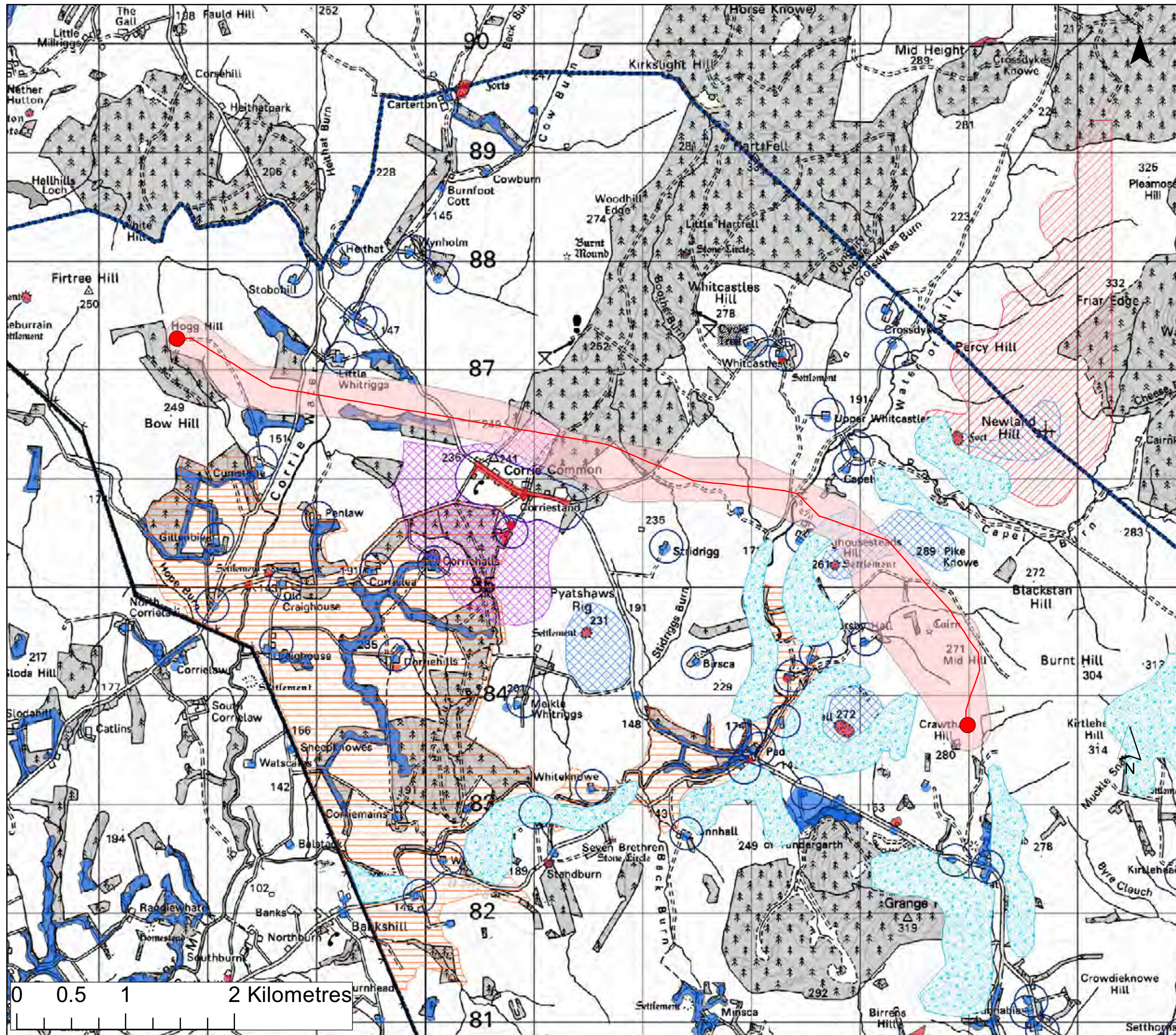
Ridge lines, summits and plateaus have not been annotated but have been considered, as read off the OS base mapping.

**Figure 2.4A**  
**Gretna to Ewe Hill - Preferred Alignment**  
 Size: A3  
 Scale: Not to Scale  
 Project: Gretna Substation to Ewe Hill and Newfield Windfarms

**SP TRANSMISSION**

Date: 06.07.10  
 Revision: -  
 Drawn by: AD  
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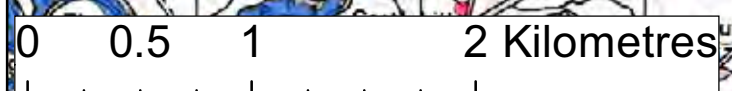


- ### Legend
- Study Area
  - Substation Locations
  - Narrow Corridor
  - Highest amenity constraints
  - High amenity constraints
  - Impact on views from settlements
  - Impact on setting of historic features
  - Varied topography and slopes
  - Intimate landscape
  - 'Double climbing'
  - Preferred Route Alignment



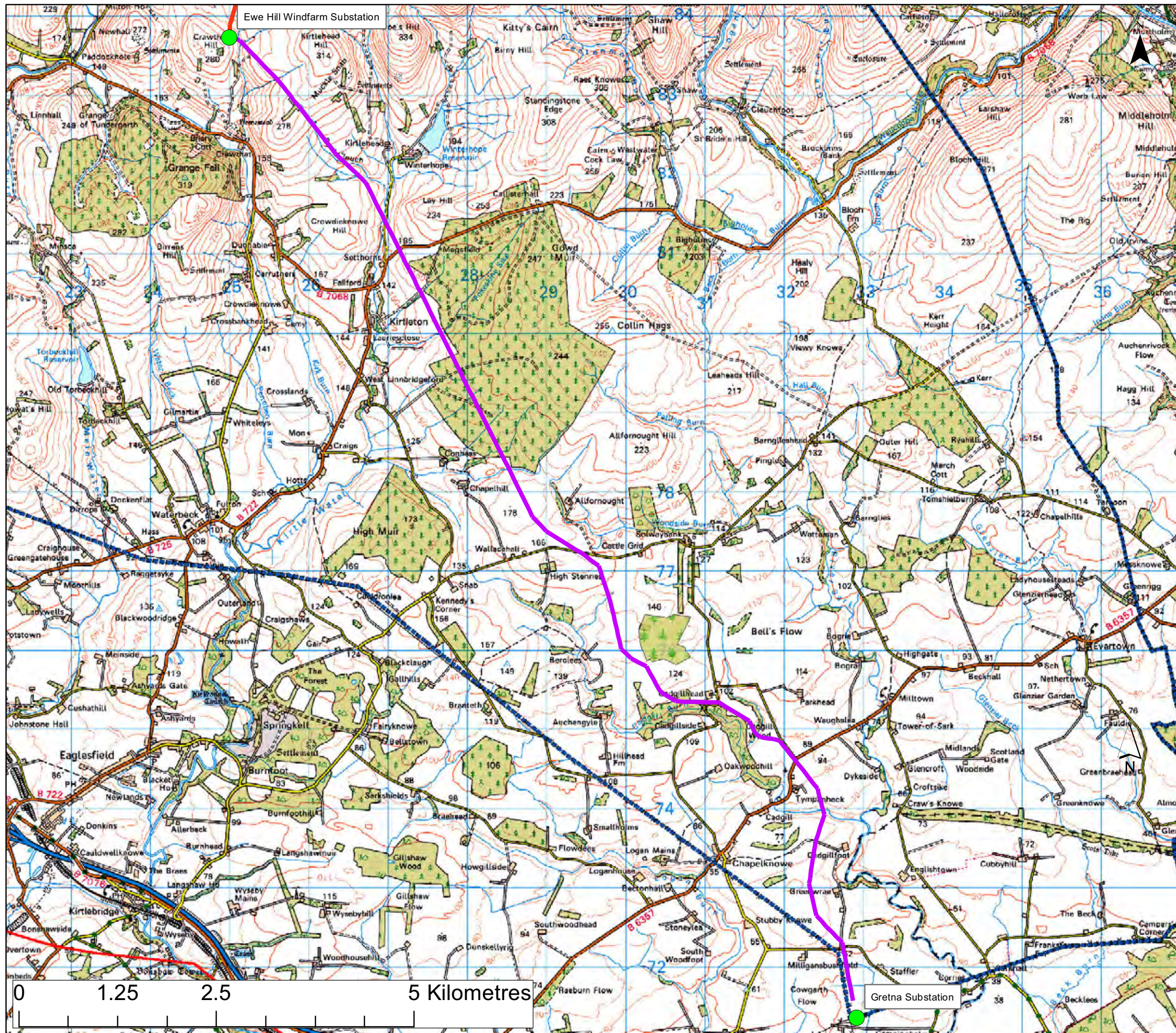
**Notes**  
 Ridge lines, summits and plateaus have not been annotated but have been considered, as read off the OS base mapping.

**Figure 2.4B**  
 Ewe Hill to Newfield - Preferred Alignment  
 Size: A3  
 Scale: Not to Scale  
 Project: Gretna Substation to Ewe Hill and Newfield Windfarms



**SP TRANSMISSION**  
 Date: 06.07.10  
 Revision: -  
 Drawn by: AD  
 Checked by: AR





- Legend**
- ▬▬▬▬ Study Area
  - ▬▬▬▬ Gretna to Ewe Hill Preferred Alignment
  - ▬▬▬▬ Ewe Hill to Newfield Preferred Alignment
  - Substation Locations



**Notes**

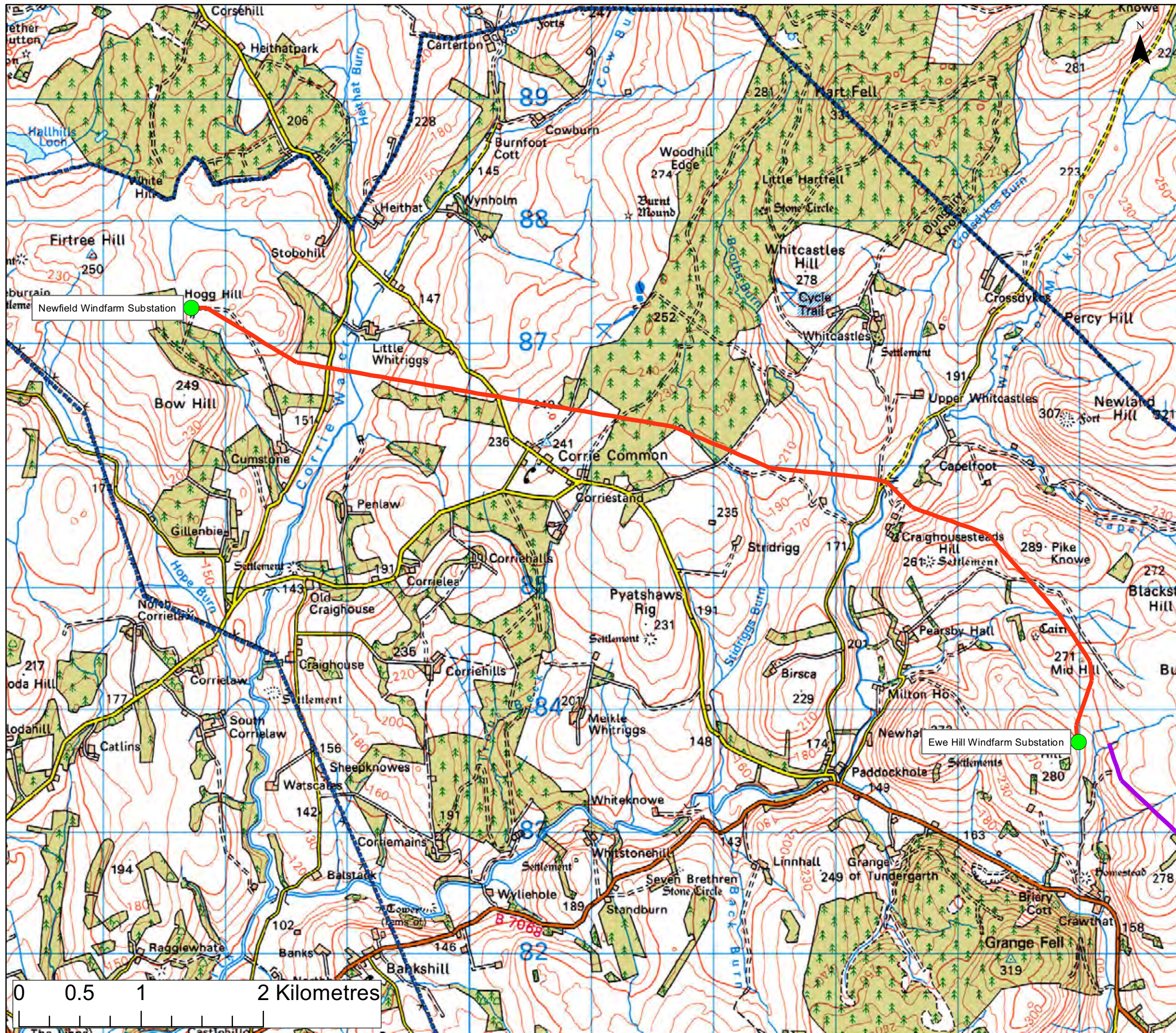
Figure 3.1 Gretna to Ewe Hill - Preferred Alignments

Size: A3  
 Scale: Not to Scale  
 Project: Gretna Substation to Ewe Hill and Newfield Windfarms

Date: 06.07.10  
 Revision: -  
 Drawn by: AD  
 Checked by: AR







**Legend**

- - - - - Study Area
- Gretna to Ewe Hill Preferred Alignment
- Ewe Hill to Newfield Preferred Alignment
- Substation Locations



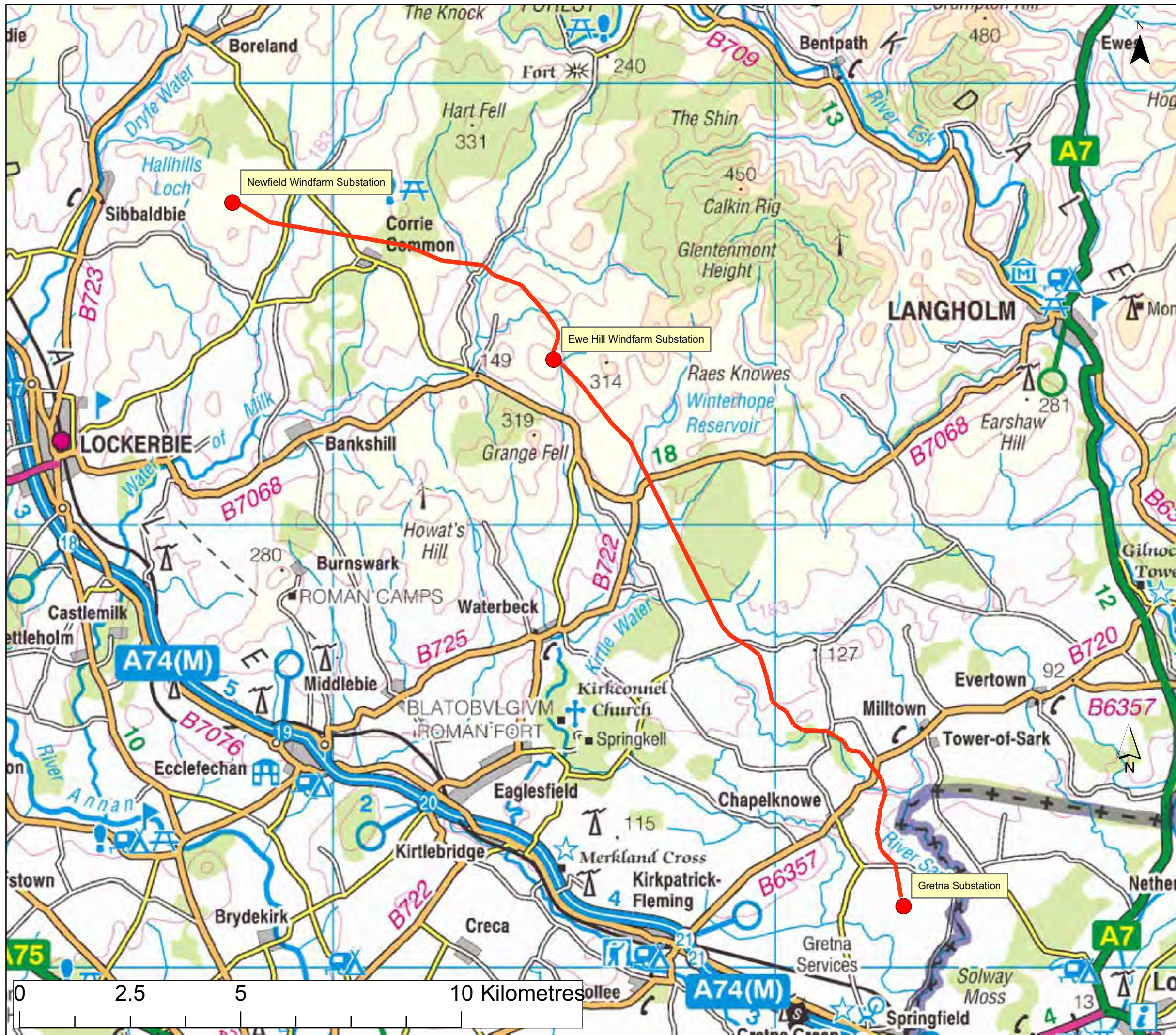
**Notes**

Figure 3.2 Ewe Hill to Newfield - Preferred Alignments

Size: A3  
 Scale: Not to Scale  
 Project: Gretna Substation to Ewe Hill and Newfield Windfarms

|  |                |
|--|----------------|
|  | Date: 06.07.10 |
|  | Revision: -    |
|  | Drawn by: AD   |
|  | Checked by: AR |





**Legend**

- Proposed OHL Alignment
- Substation



**Notes**

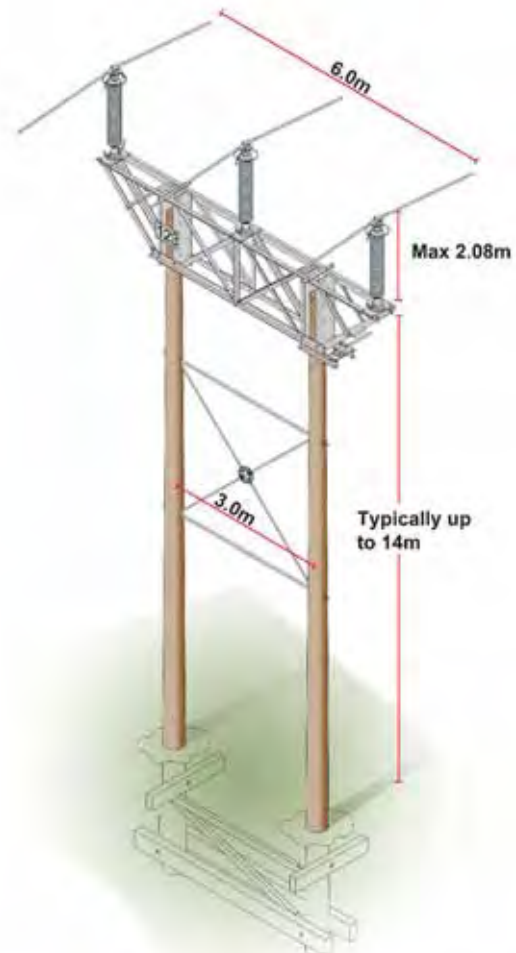
Figure 3.3  
Overview of Proposed Alignment

Size: A3  
 Scale: Not to Scale  
 Project: Gretna Substation to Ewe Hill and Newfield Windfarms

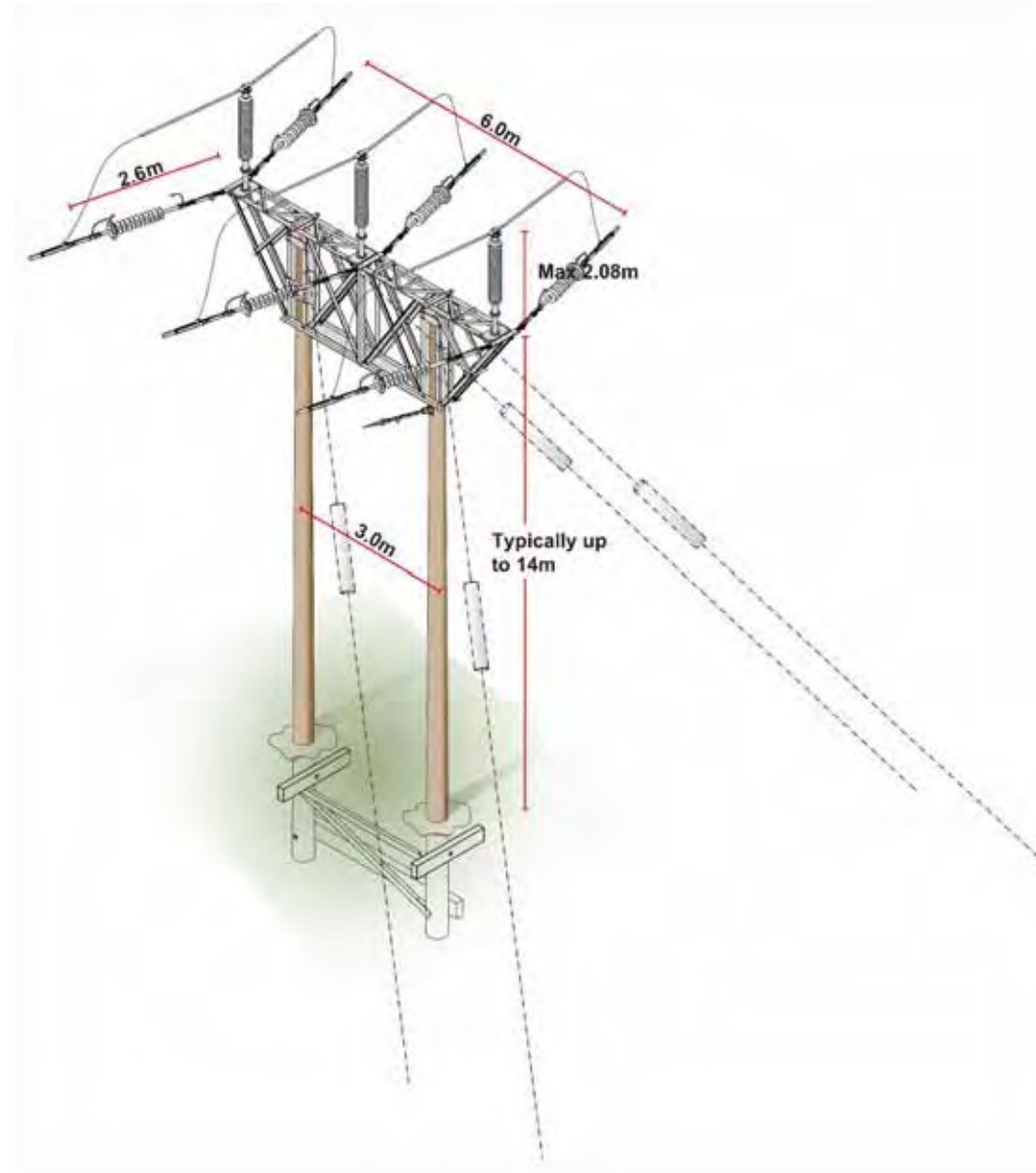
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|  | Revision:   | -        |
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|  | Checked by: | AR       |



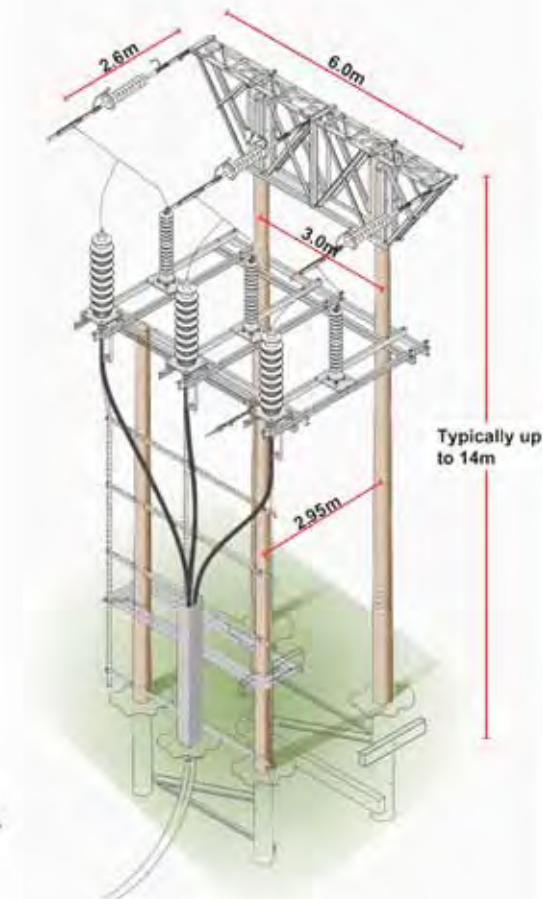
Legend



Straight line poles



20-30 degree angle poles



Terminal structure



Notes

Images provided by  
**CAPITA LOVEJOY**

Figure 3.4  
Typical Heavy Duty Wood Pole  
Construction Images

Size: A3

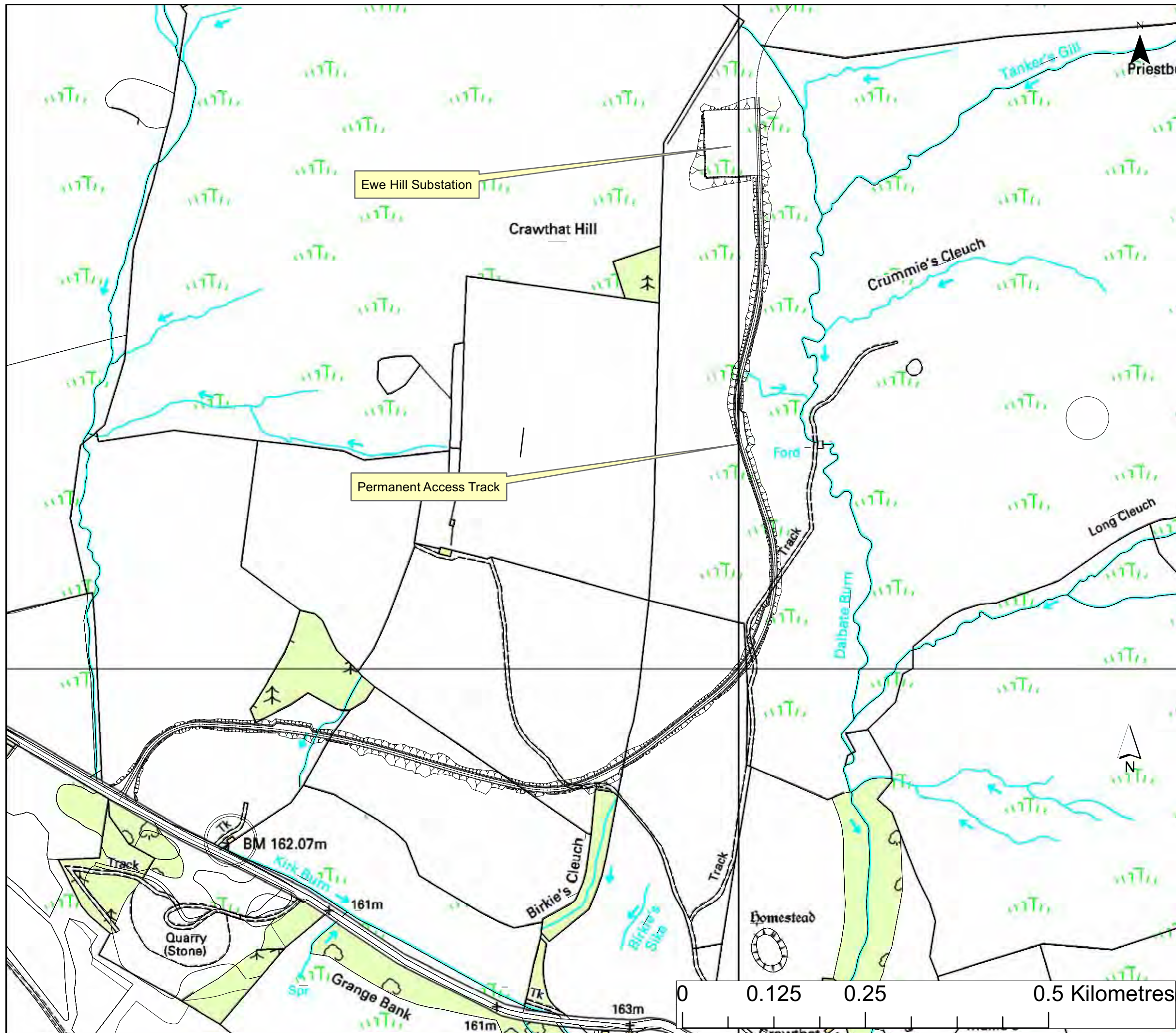
Scale: Not to Scale

Project: Gretna Substation to Ewe Hill  
and Newfield Windfarms



Date: 07.07.10  
Revision: -  
Drawn by: AD  
Checked by: AR





**Legend**



**Notes**

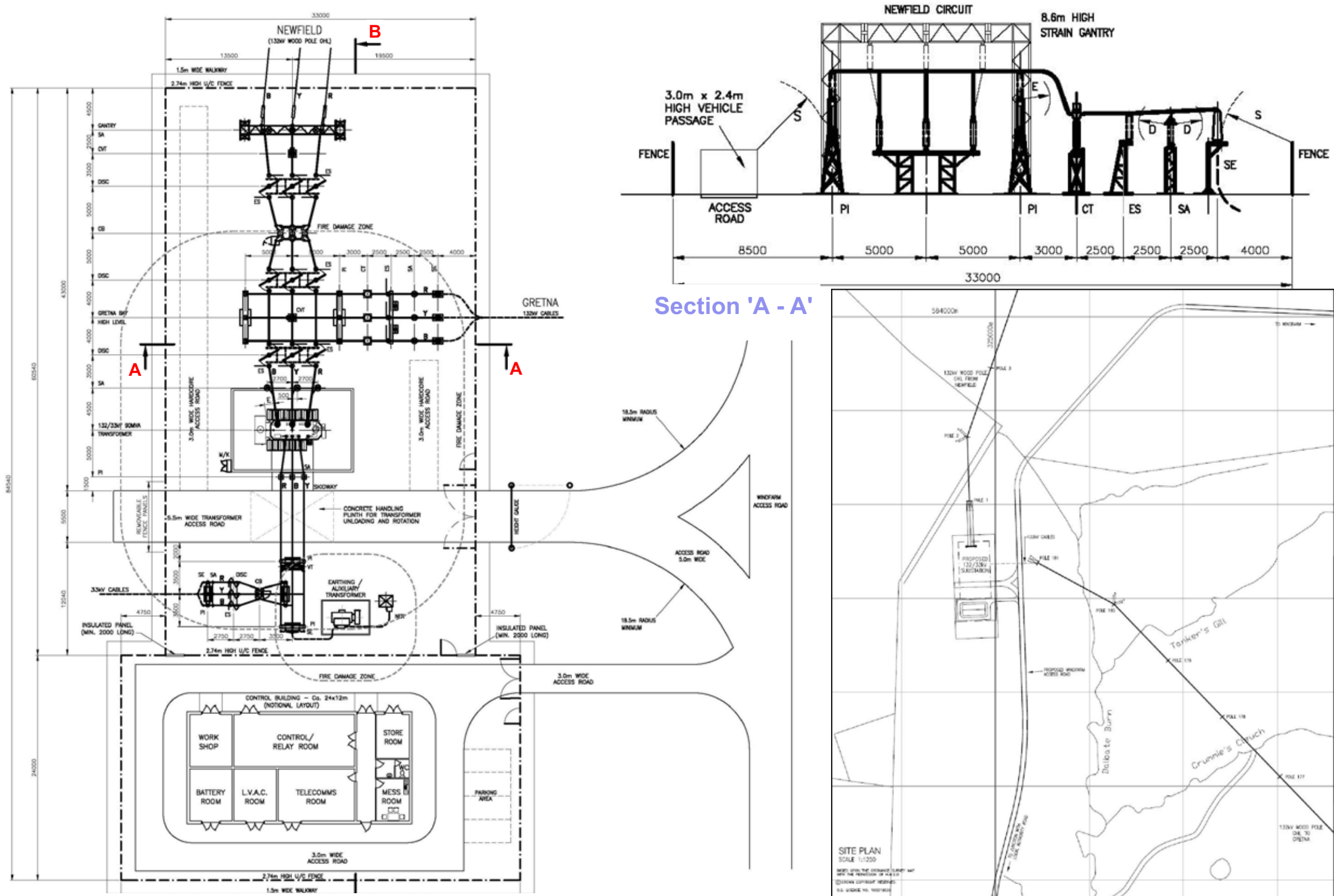
Access track drawings provided by Scott Wilson Ltd

**Figure 3.5**  
**Permanent Access Track to Ewe Hill Substation**

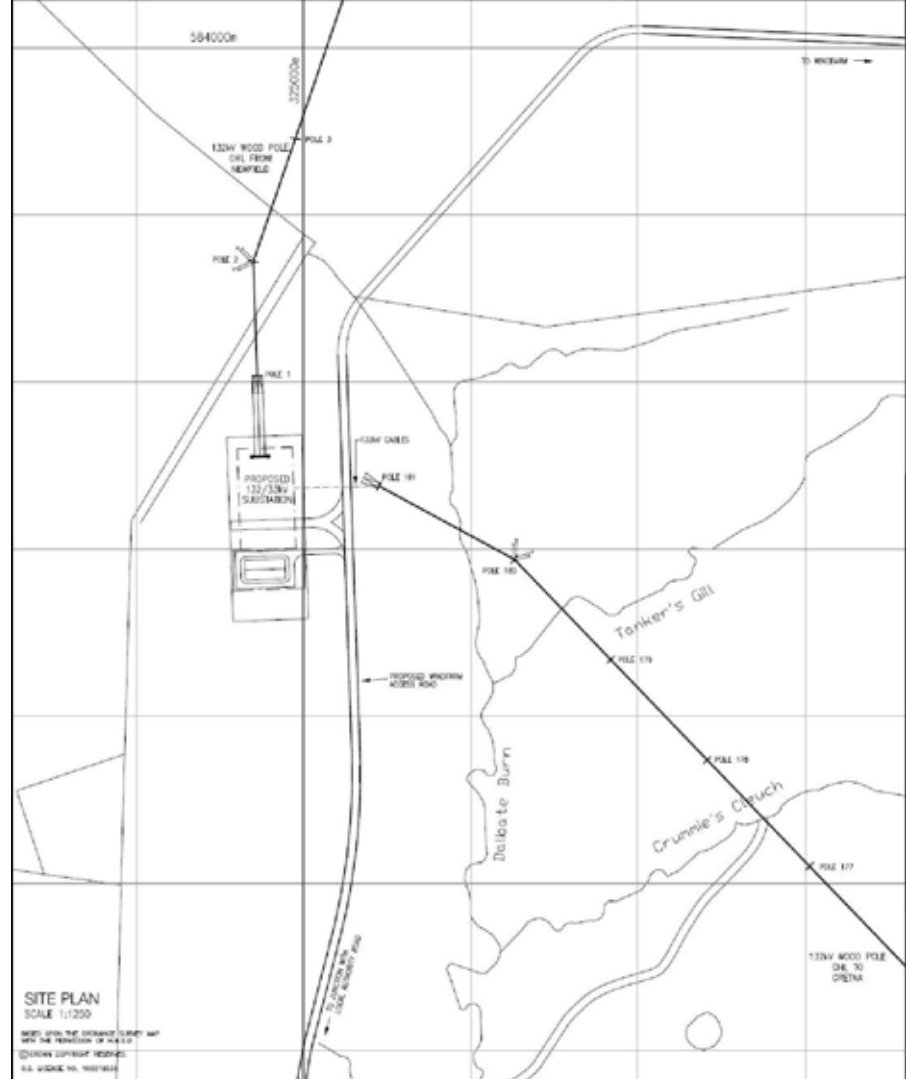
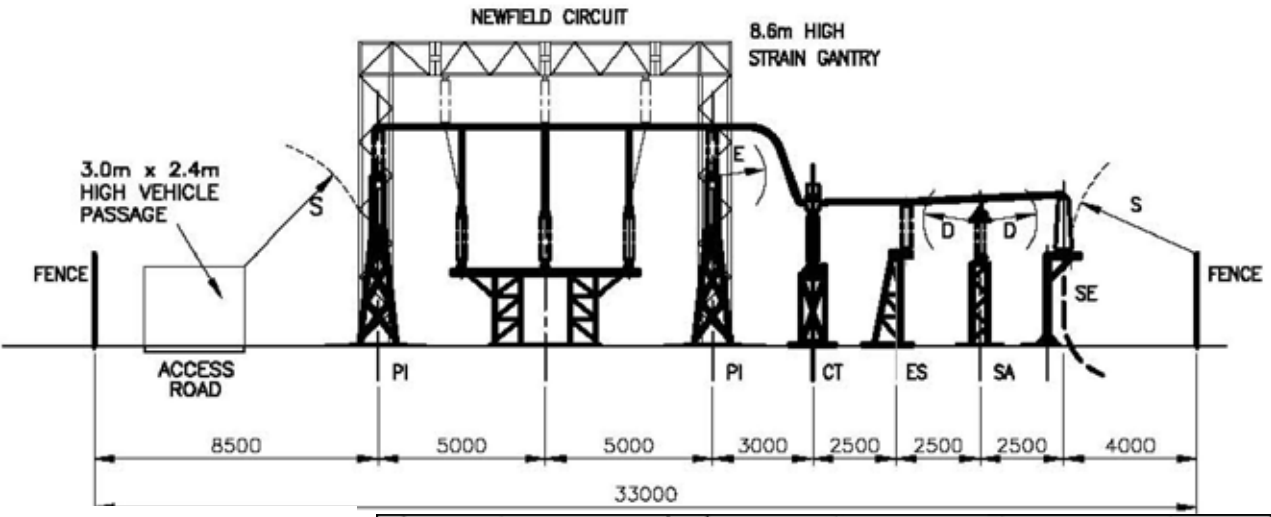
Size: A3  
 Scale: Not to Scale  
 Project: Gretna Substation to Ewe Hill and Newfield Windfarms

|  |             |          |
|--|-------------|----------|
|  | Date:       | 06.07.10 |
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|  | Checked by: | AR       |





Section 'A - A'

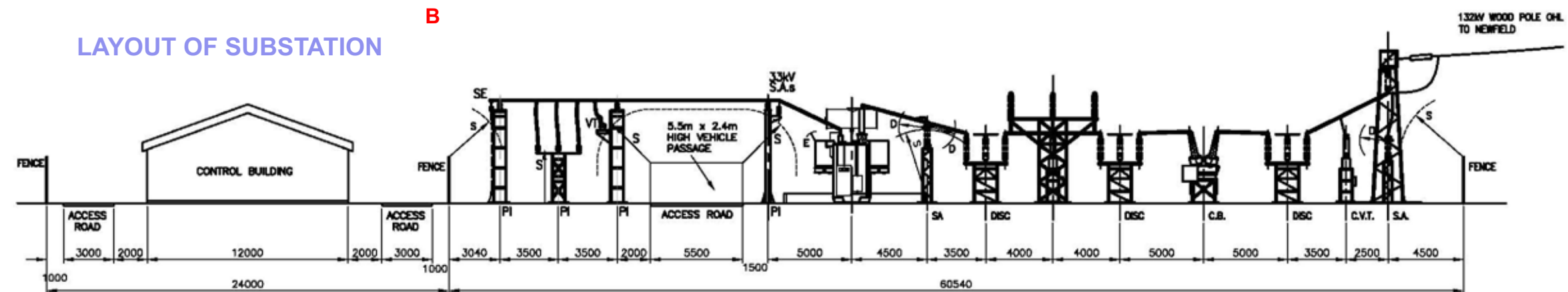


**Notes**  
 Reproduced from SP Energy Networks drawing SP 2146911:Revision 6

Figure 3.6  
 Electrical layout of proposed Ewe Hill substation  
 Size: A3  
 Scale: Not to Scale  
 Project: Gretna Substation to Ewe Hill and Newfield Windfarms

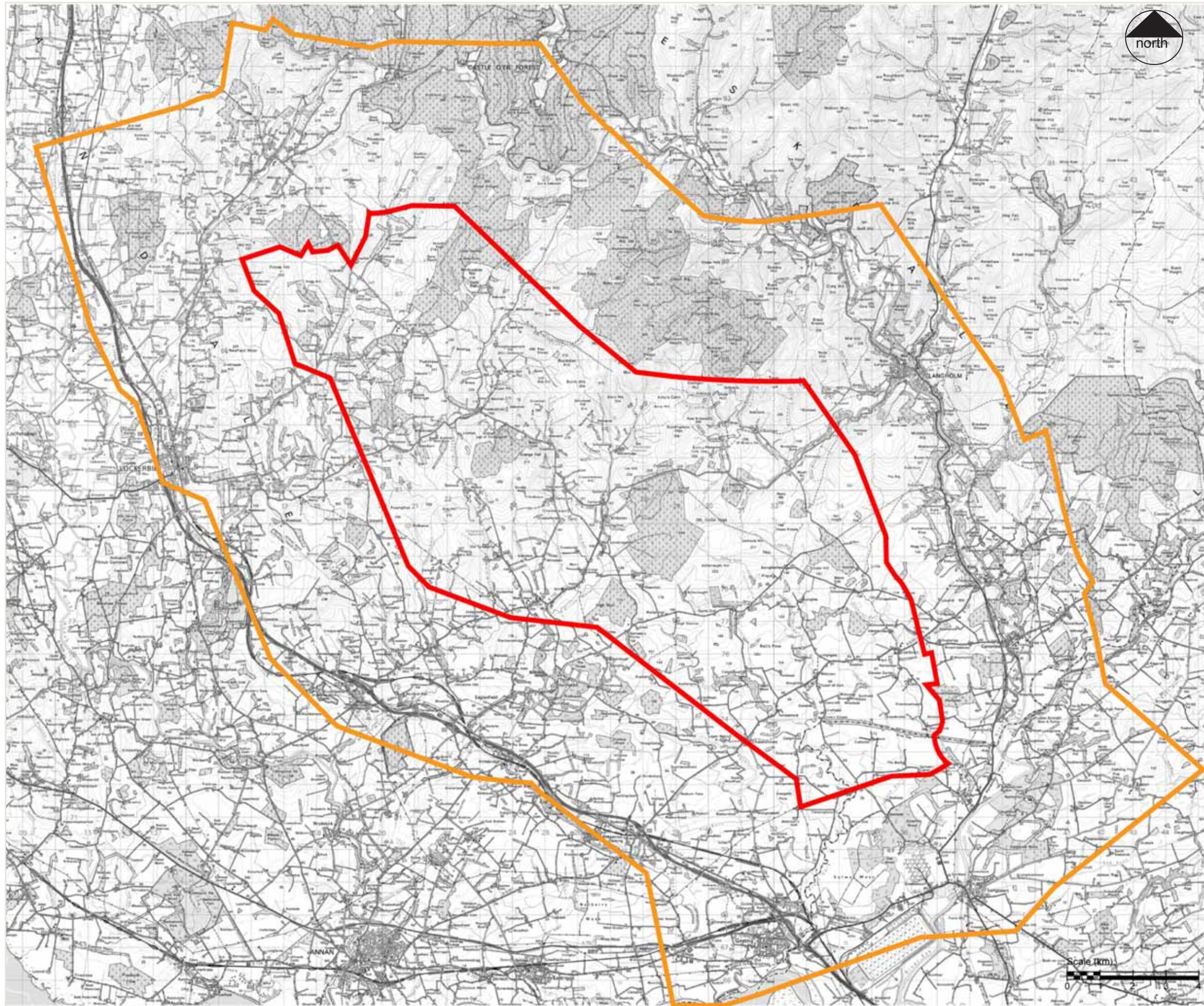
Date: 12.04.11  
 Revision: -  
 Drawn by: AD  
 Checked by: AR

LAYOUT OF SUBSTATION



Section 'B - B'





KEY

- Study Area
- Buffer Area



Notes

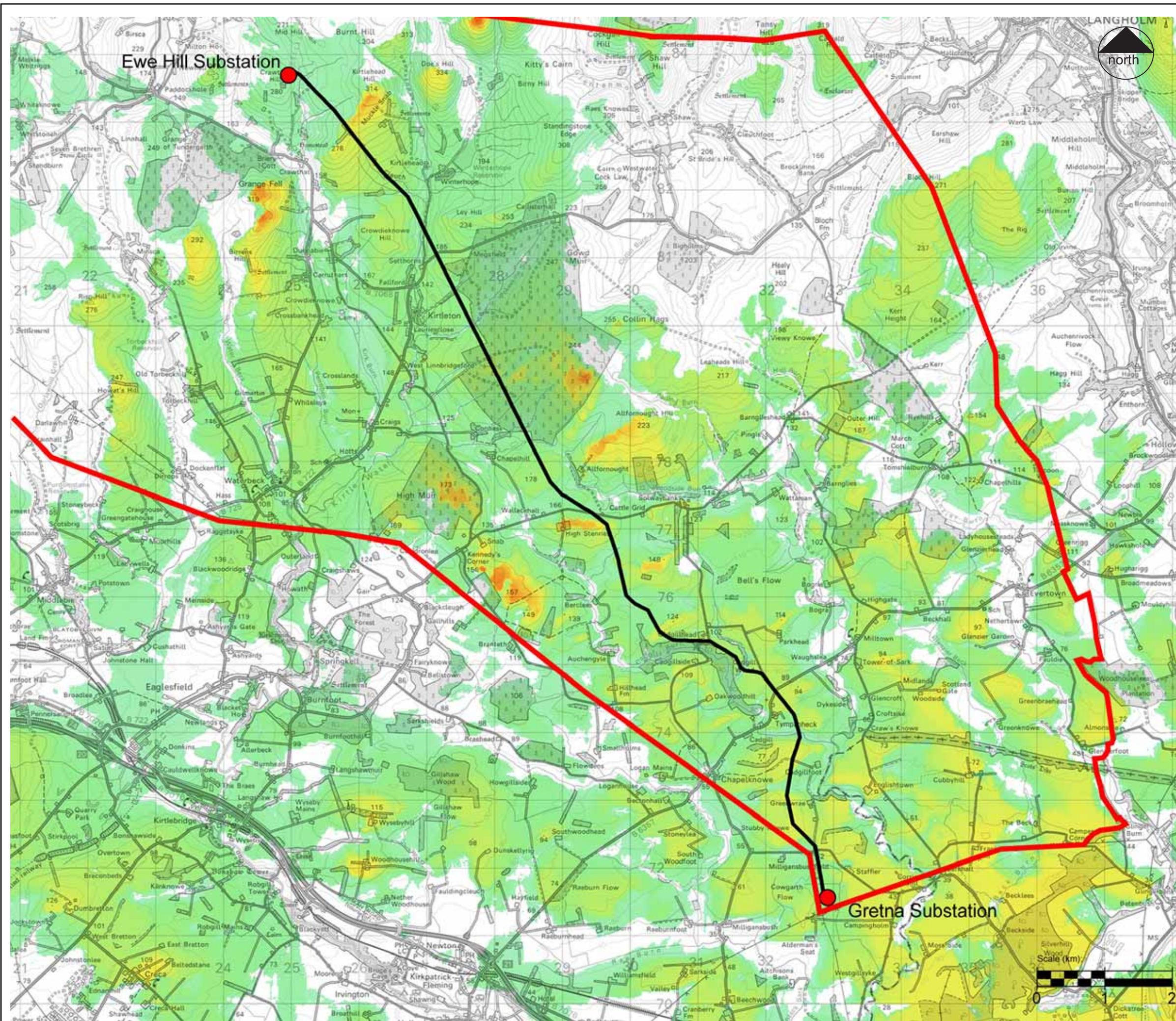
Figure 6.1  
Study Area and Buffer Area

Size : A3  
Project : Gretna Substation to  
Ewehill and Newfield Windfarms



Date: December 2010  
Revision: -  
Drawn by: SC  
Checked by: SYI





**KEY**

- Study Area
- Proposed Overhead Line:  
South Route

**Extent of Potential Visibility**

- Greatest Extent
- ↑
- 
- ↓
- 
- ↓
- 
- ↓
- No Views

**GILLESPIES**  
**WSP**

**Notes**  
 The ZTV is calculated based on a view height of 2m above a bare ground terrain model and takes no account of localised landform, existing trees, buildings or other structures.  
 The terrain model was derived from OS Landform Profile data.

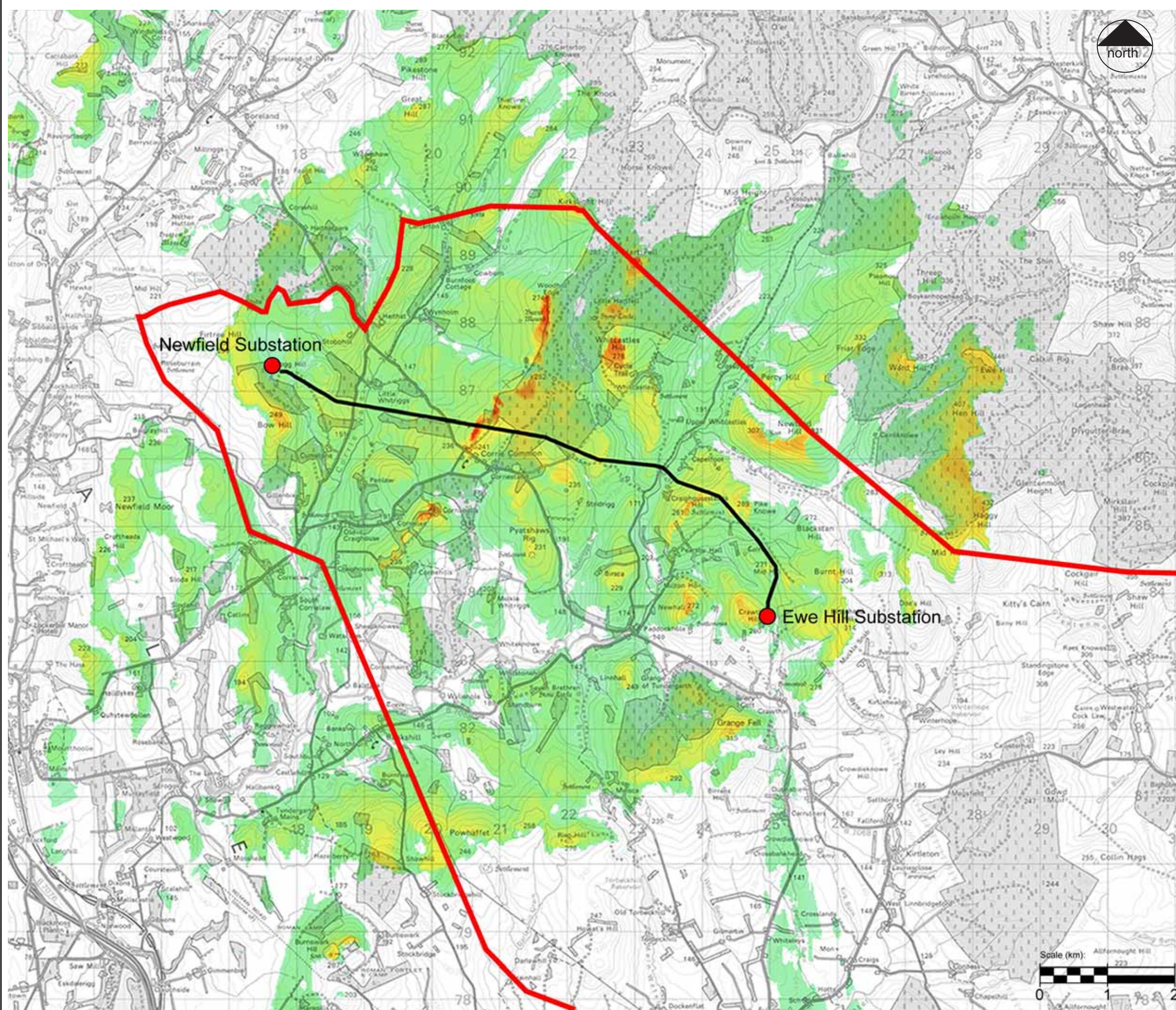
**Figure 6.2**  
 Zone of Theoretical Visibility - South Route

Size : A3  
 Project : Gretna Substation to Ewehill and Newfield Windfarms

**SP TRANSMISSION**

Date: December 2010  
 Revision: -  
 Drawn by: SC  
 Checked by: SYI





**KEY**

- Study Area
- Proposed Overhead Line:  
North Route

**Extent of Potential Visibility**

- Greatest Extent
- ↑
- 
- ↓
- 
- 
- No Views

**GILLESPIES**  
**WSP**

**Notes**  
 The ZTV is calculated based on a view height of 2m above a bare ground terrain model and takes no account of localised landform, existing trees, buildings or other structures.  
 The terrain model was derived from OS Landform Profile data.

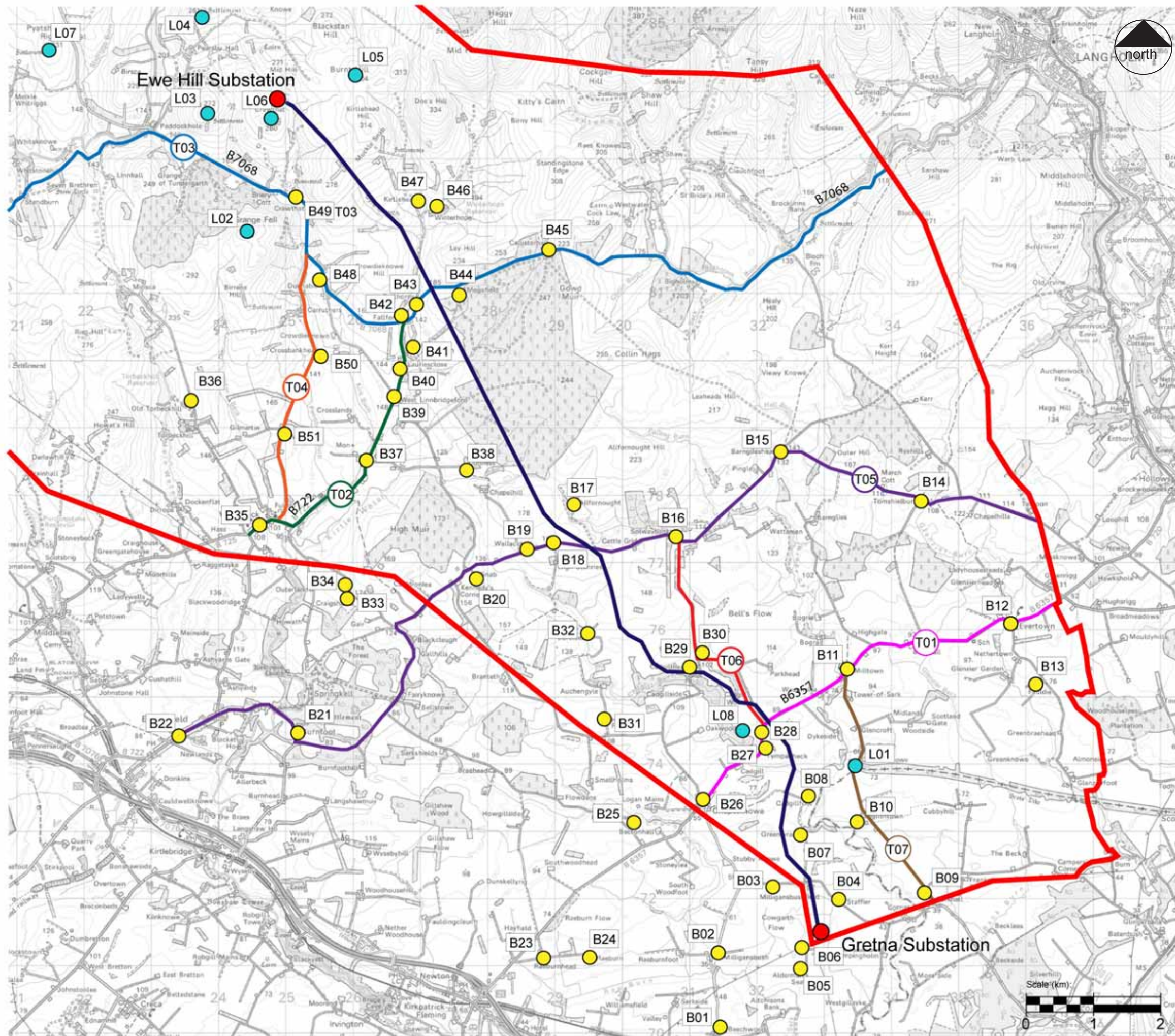
**Figure 6.3**  
 Zone of Theoretical Visibility - North Route

Size : A3  
 Project : Gretna Substation to Ewehill and Newfield Windfarms

**SP TRANSMISSION**

Date: December 2010  
 Revision: -  
 Drawn by: SC  
 Checked by: SYI





**KEY**

- Study Area
- Proposed Overhead Line:  
South Route

**Receptor Types**

- B = Buildings
- L = Outdoor Locations
- T = Transport Corridors (Roads)



**Notes**

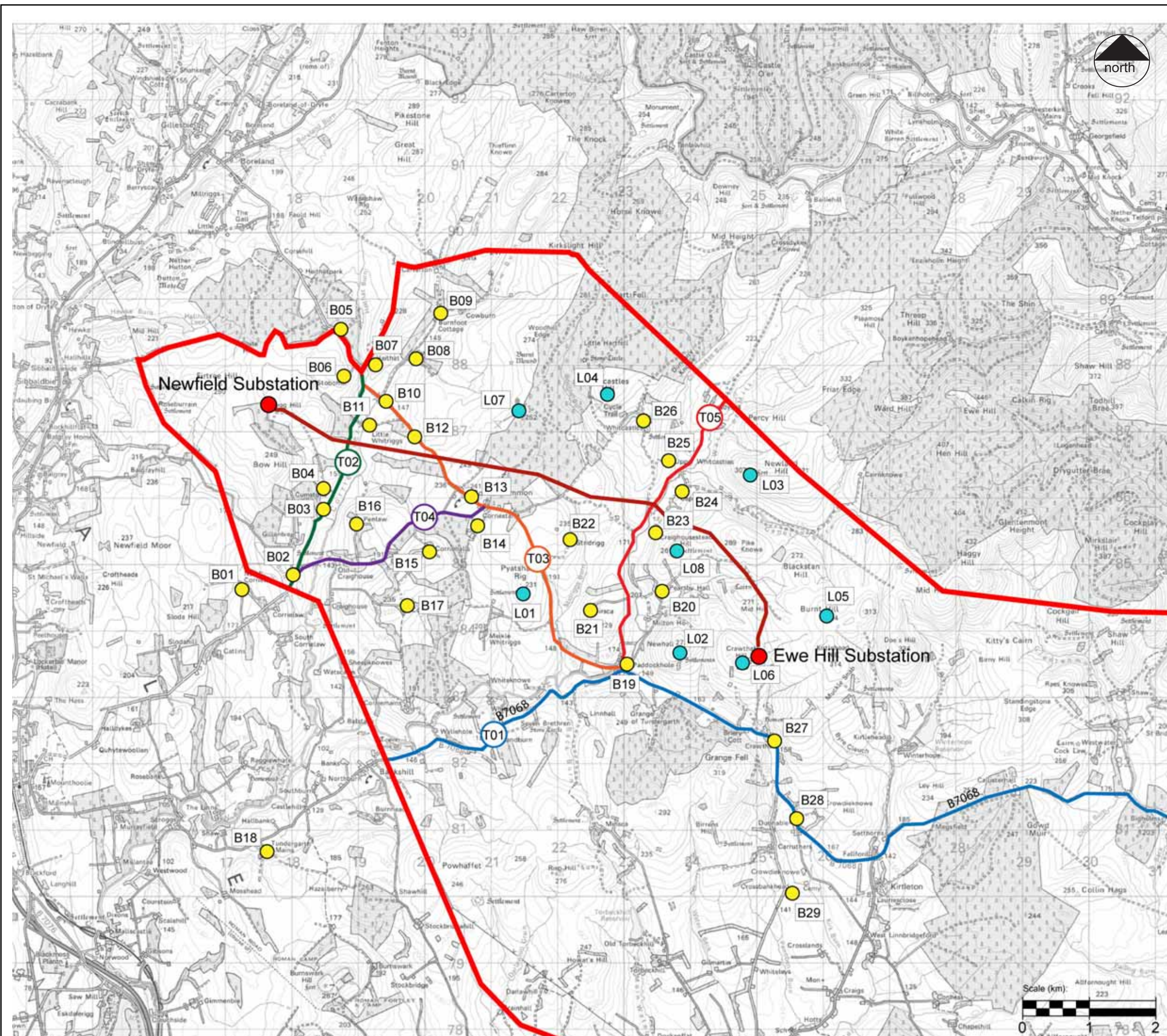
Figure 6.4  
Receptor Locations - South Route

Size : A3  
Project : Gretna Substation to  
Ewehill and Newfield Windfarms



Date: December 2010  
Revision: -  
Drawn by: SC  
Checked by: SYI





**KEY**

- Study Area
- Proposed Overhead Line: North Route

**Receptor Types**

- B = Buildings
- L = Outdoor Locations
- T01 T = Transport Corridors (Roads)

**GILLESPIES WSP**

**Notes**

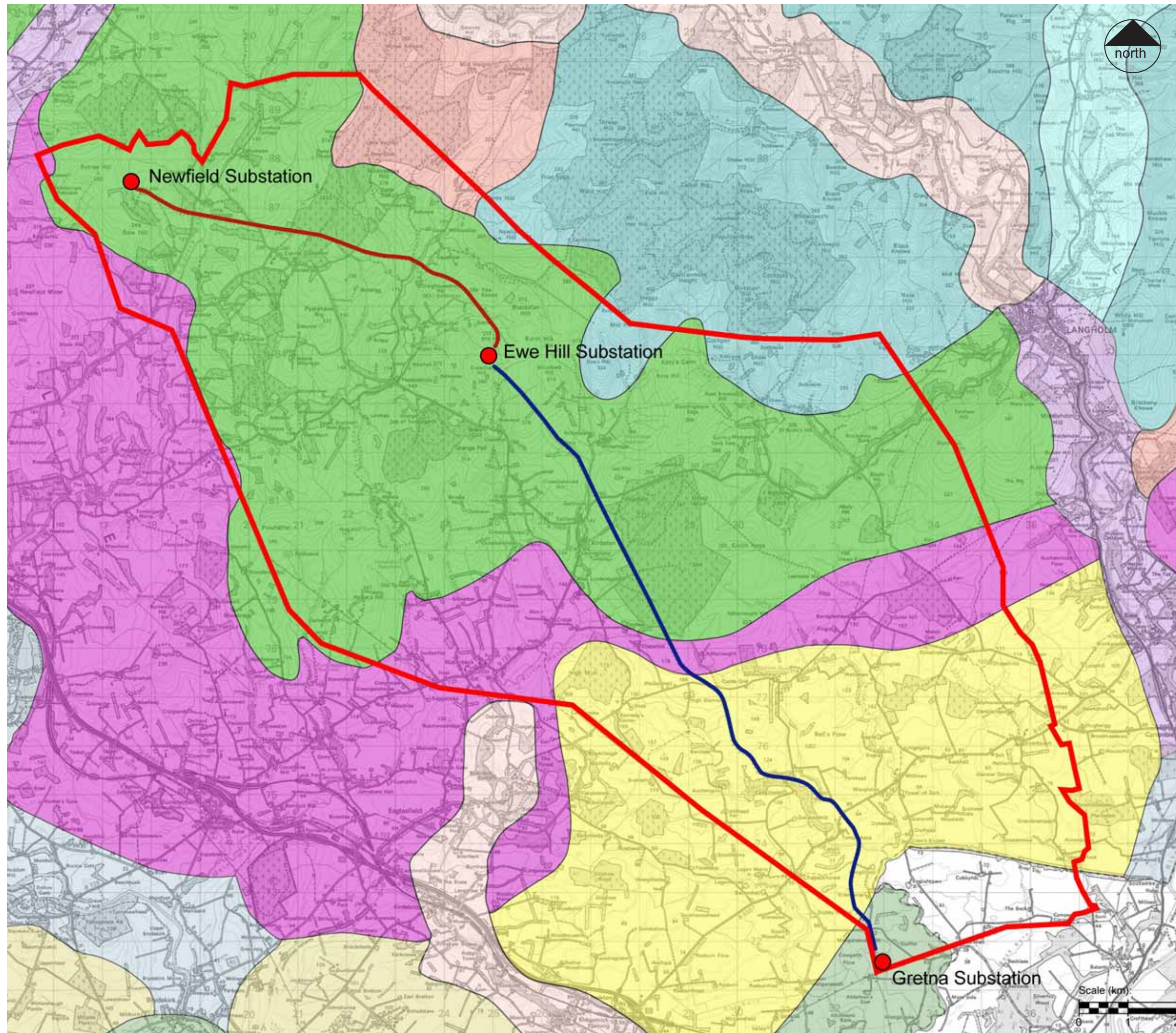
**Figure 6.5**  
 Receptor Locations - North Route

Size : A3  
 Project : Gretna Substation to Ewehill and Newfield Windfarms

**SP TRANSMISSION**

Date: December 2010  
 Revision: -  
 Drawn by: SC  
 Checked by: SYI





**KEY**

- Study Area
- Proposed Overhead Line: South Route
- Proposed Overhead Line: North Route

**Landscape Character Types inside Study Boundary Area**

- Flow Plateau LCT
- Upland Fringe LCT
- Southern Uplands LCT
- Foothills LCT
- Foothills with Forest LCT
- Coastal Flats LCT

**Landscape Character Types out of Study Boundary Area**

- Coastal Plateau LCT
- Middle Valley LCT
- Narrow Wooded Valley LCT
- Upland Glens LCT
- Intimate Pastoral Valley LCT

**GILLESPIES**  
**WSP**

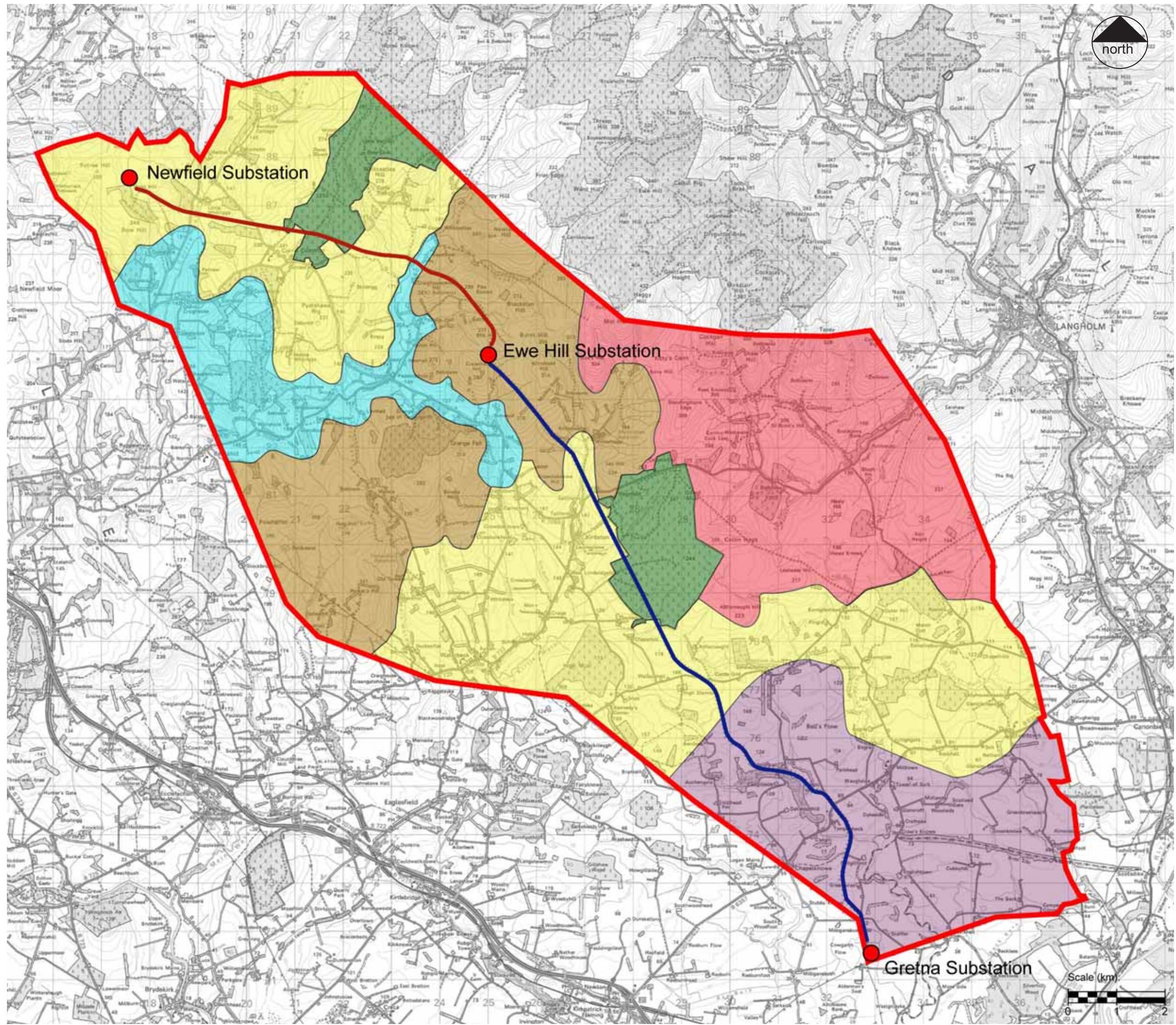
Notes

**Figure 6.6**  
SNH Landscape Character Types

Size : A3  
Project : Gretna Substation to Ewehill and Newfield Windfarms

Date: December 2010  
Revision: -  
Drawn by: SC  
Checked by: SYI





**KEY**

- Study Area
- Proposed Overhead Line: South Route
- Proposed Overhead Line: North Route
- Lowland Farmland LCA
- Intimate River Corridor LCA
- Transitional Farmland LCA
- Upland Pasture LCA
- Upland Heath LCA
- Plantation Woodland LCA

**GILLESPIES WSP**

**Notes**

**Figure 6.7**  
 Local Landscape Character Areas

Size : A3  
 Project : Gretna Substation to Ewehill and Newfield Windfarms



Date: December 2010  
 Revision: -  
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 Checked by: SYI





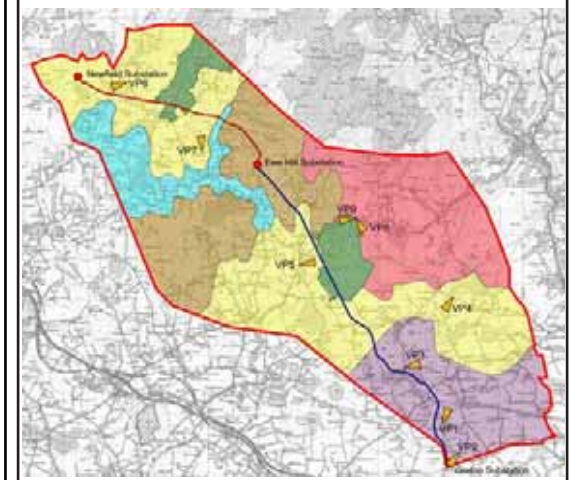
View 1: Lowland Farmland - looking north towards Cadgillfoot Farm



View 2: Lowland Farmland - looking southwest from Staffler towards Gretna Substation



View 3: Lowland Farmland - looking east from Cadgillhead



View 4: Transitional Farmland - view from Outer Hill looking south towards Lowland Farmland LCA



View 5: Transitional Farmland - looking east from Lauriesclose (Plantation Woodland in distance)



View 6: Transitional Farmland - looking southwest towards Little Whitriggs



View 7: Transitional Farmland - View from Birsca looking north towards Plantation Woodland LCA



View 8: Upland Heath - looking southwest from Callisterhall



View 9: Upland Heath - looking west from Callisterhall



Notes

Figure 6.8  
Representative Images of Landscape Character Types

Size : A3  
Project : Gretna Substation to Ewehill and Newfield Windfarms



Date: December 2010  
Revision: -  
Drawn by: SC  
Checked by: SYI





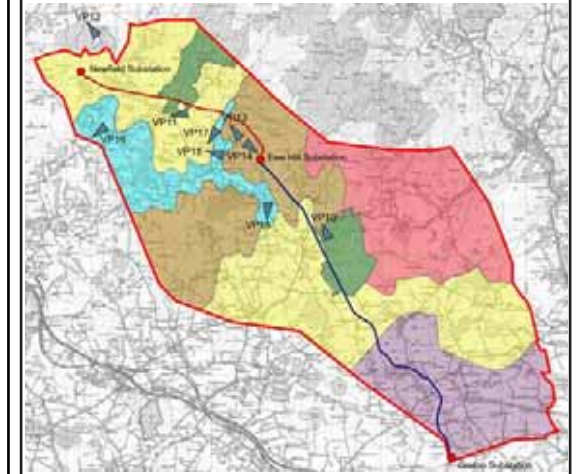
View 10: Plantation Woodland - view looking south towards Megsfield with Plantation Woodland behind



View 11: Plantation Woodland - view looking northeast from Corrie Common



View 12: Plantation Woodland - view looking west from Corsehill



View 13: Upland Pasture - looking southeast towards Crawthat Hill from Craighousesteads Hill



View 14: Upland Pasture - looking west towards Pearsby Hall



View 15: Upland Pasture - looking east over Intimate River Corridor LCA towards Upland Pasture LCA



View 16: Intimate River Corridor - looking northeast along the Corrie Water Valley



View 17: Intimate River Corridor - looking north up the Water of Milk Valley and to Craighousesteads



View 18: Intimate River Corridor - looking north towards Crawthat Hill

Notes

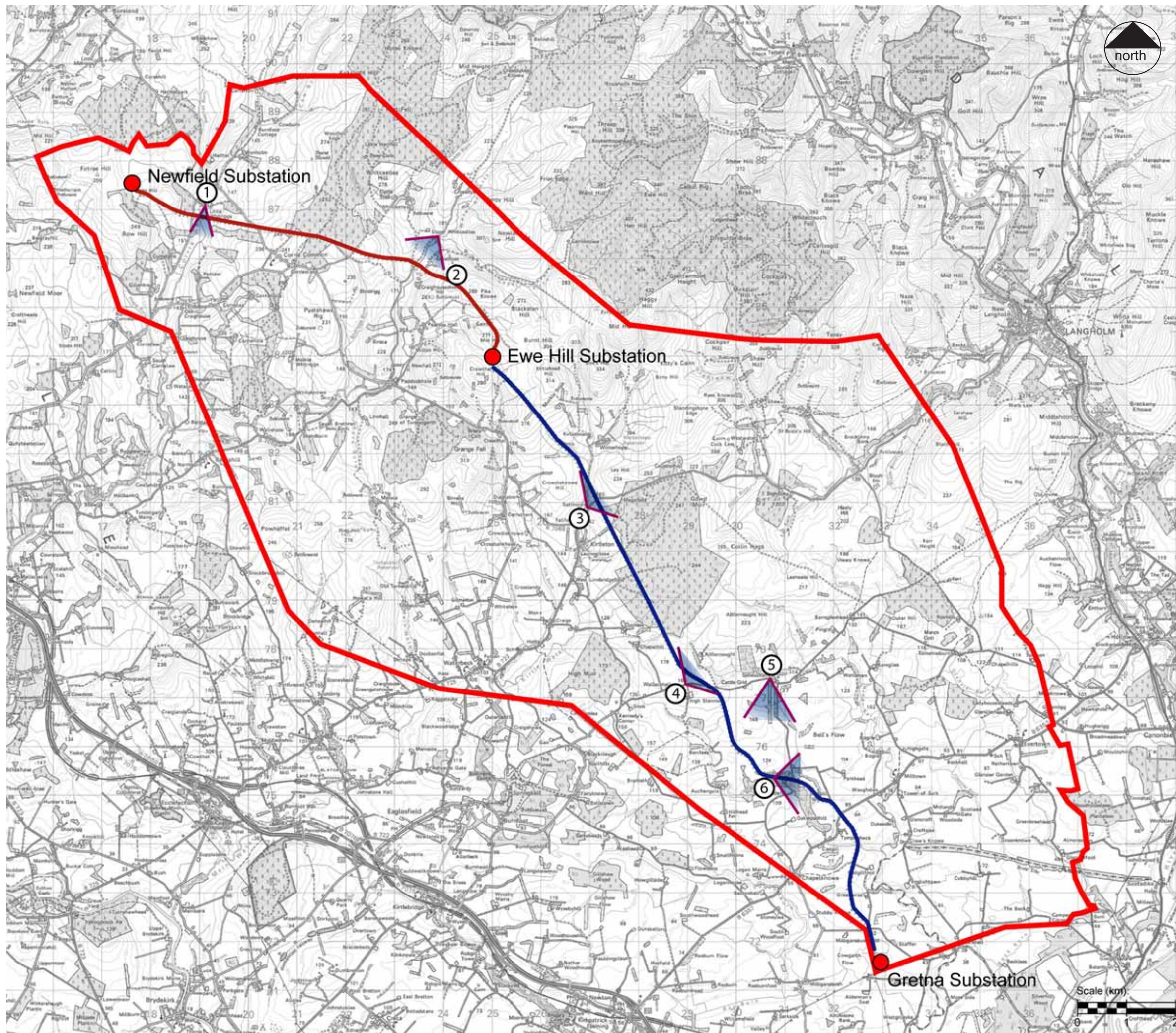
Figure 6.9  
Representative Images of Landscape Character Types

Size : A3  
Project : Gretna Substation to Ewehill and Newfield Windfarms








Date: December 2010  
Revision: -  
Drawn by: SC  
Checked by: SYI





**KEY**

-  Study Area
-  Proposed Overhead Line: South Route
-  Proposed Overhead Line: North Route
-  Photomontage locations
-  Views

1. From little Whitriggs
2. Water of Milk Valley - near Capelfoot
3. By Setthorns
4. By access to High Stenries
5. From Solwaybank looking south
6. Adjacent to Cadgillhead Farm



**Notes**

Figure 6.10  
Photomontage Location Map

Size : A3  
Project : Gretna Substation to Ewehill and Newfield Windfarms

 Date: December 2010  
Revision: -  
Drawn by: SC  
Checked by: SYI





Viewpoint 3 - Wireline and Photomontage: By Setthorns, looking northeast

For location of viewpoint refer to Figure 6.10

Figure 6.11  
Viewpoint 3:  
Wireline and Photomontage  
  
Size : A3  
Project : Gretna Substation to  
Ewehill and Newfield Windfarms





Viewpoint 4 - Wireline and Photomontage: By access to High Stenries, looking northeast

For location of viewpoint refer to Figure 6.10

Figure 6.12  
Viewpoint 4:  
Wireline and Photomontage

Size : A3  
Project : Gretna Substation to  
Ewehill and Newfield Windfarms





Viewpoint 5 - Wireline and Photomontage: From Solwaybank, looking south  
For location of viewpoint refer to Figure 6.10

Figure 6.13  
Viewpoint 5:  
Wireline and Photomontage

Size : A3  
Project : Gretna Substation to  
Ewehill and Newfield Windfarms



Date: December 2010  
Revision: -  
Drawn by: SC  
Checked by: SYI

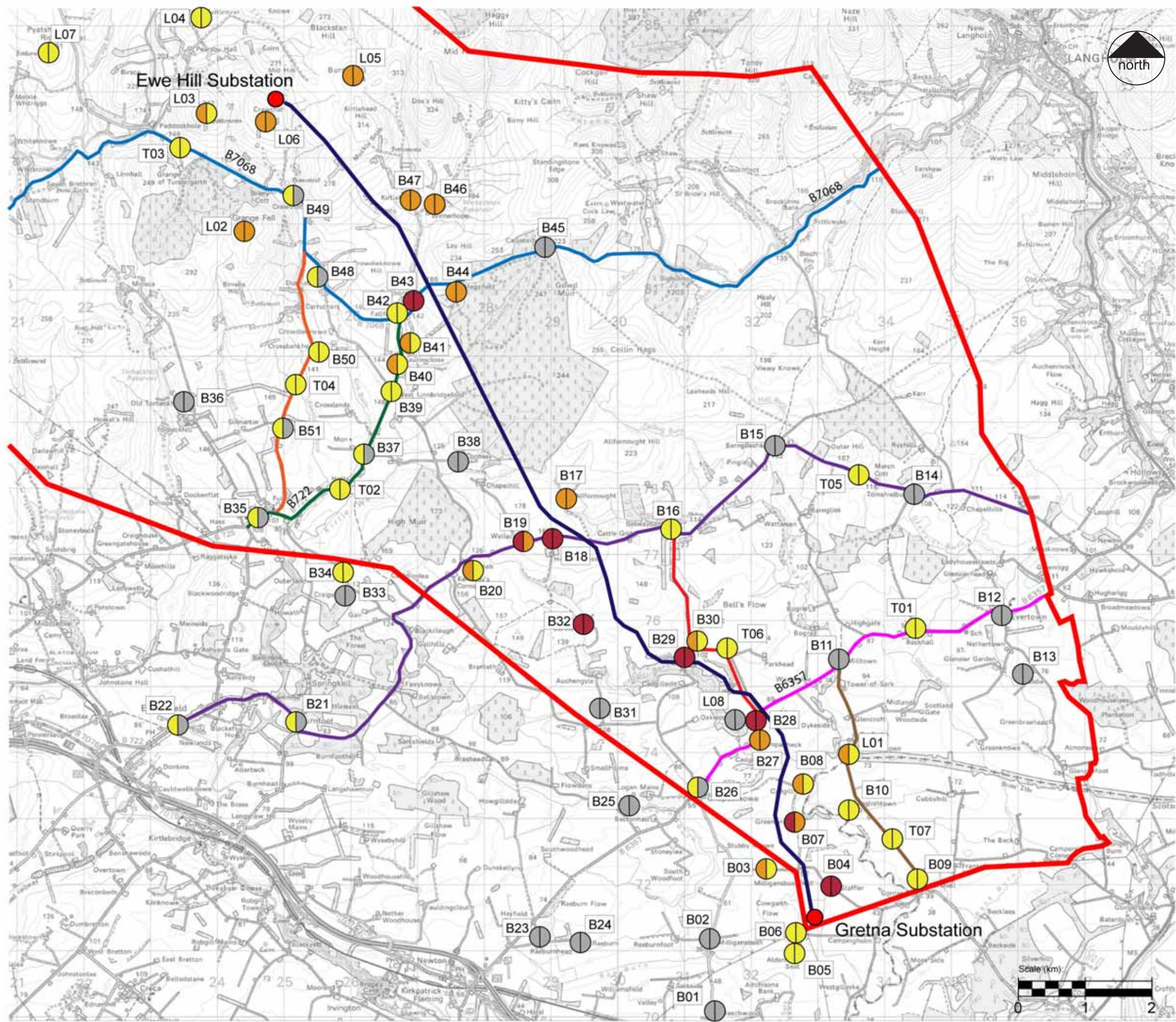




Viewpoint 6 - Wireline and Photomontage: Adjacent to Cadgillhead Farm, looking east  
For location of viewpoint refer to Figure 6.10

Figure 6.14  
Viewpoint 6:  
Wireline and Photomontage  
  
Size : A3  
Project : Gretna Substation to  
Ewehill and Newfield Windfarms





**KEY**

- Study Area
- Proposed Overhead Line:  
South Route
- B01 Receptor Name
- Effects during Construction
- Effects on Completion

**Residual Effects**

- No Effects
- Minor Effects
- Moderate Effects
- Major Effects

**GILLESPIES WSP**

**Notes**

Residual Effects include mitigation measures

**Figure 6.15**  
Visual Effects - South Route

Size : A3  
Project : Gretna Substation to Ewehill and Newfield Windfarms

**SP TRANSMISSION**

Date: December 2010  
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Viewpoint 1 - Wireline and Photomontage: From Little Whitriggs, looking south

For location of viewpoint refer to Figure 6.10

Figure 6.16  
Viewpoint 1:  
Wireline and Photomontage

Size : A3  
Project : Gretna Substation to  
Ewehill and Newfield Windfarms





Viewpoint 2 - Wireline and Photomontage: Water of Milk Valley, near Capelfoot, looking southwest

For location of viewpoint refer to Figure 6.10

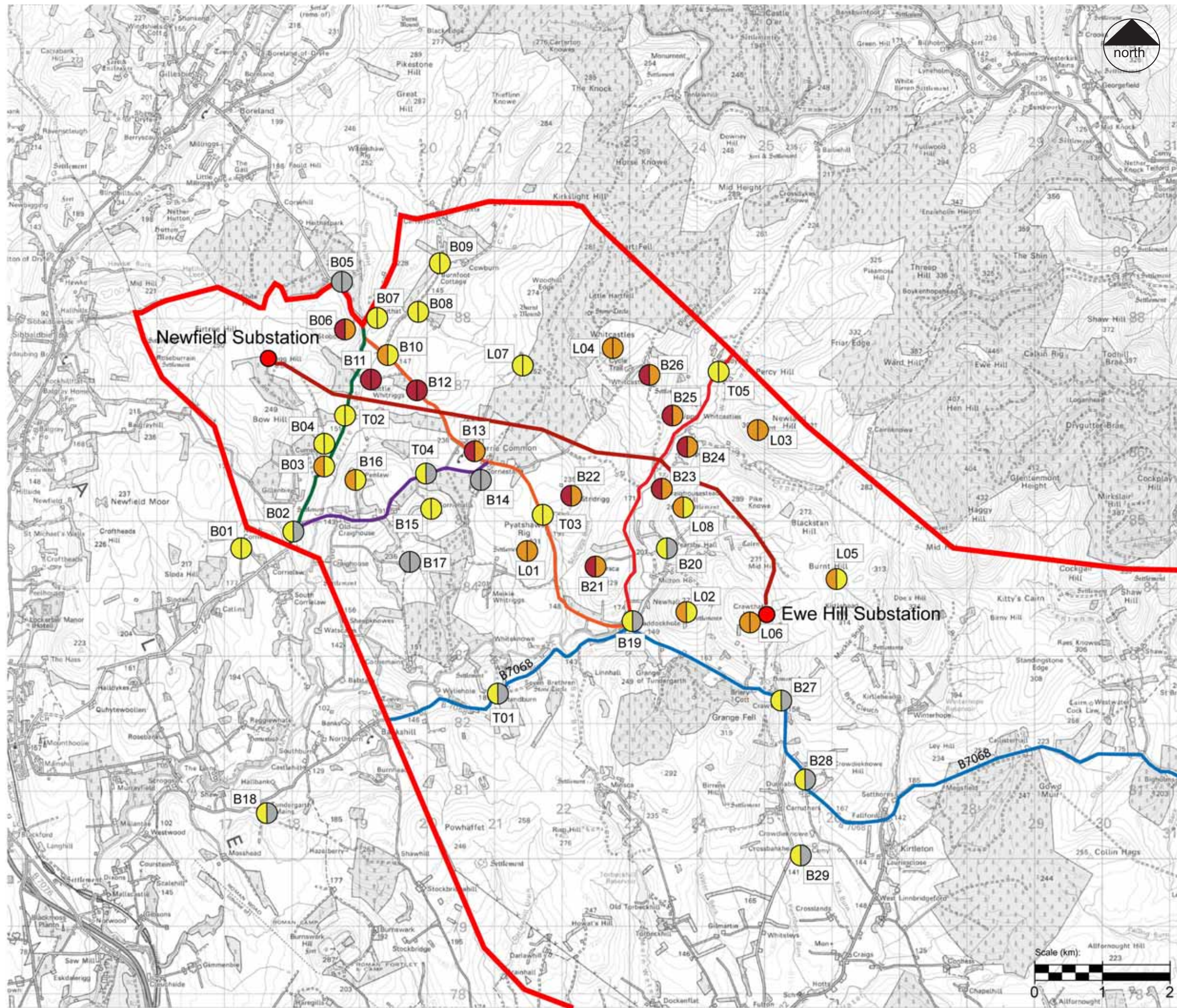
Figure 6.17  
Viewpoint 2:  
Wireline and Photomontage

Size : A3  
Project : Gretna Substation to  
Ewehill and Newfield Windfarms



Date: December 2010  
Revision: -  
Drawn by: SC  
Checked by: SYI





**KEY**

- Study Area
- Proposed Overhead Line:  
North Route
- B01 Receptor Name
- Effects during Construction
- Effects on Completion

**Residual Effects**

- No Effects
- Minor Effects
- Moderate Effects
- Major Effects

**GILLESPIES WSP**

**Notes**  
Residual Effects include mitigation measures

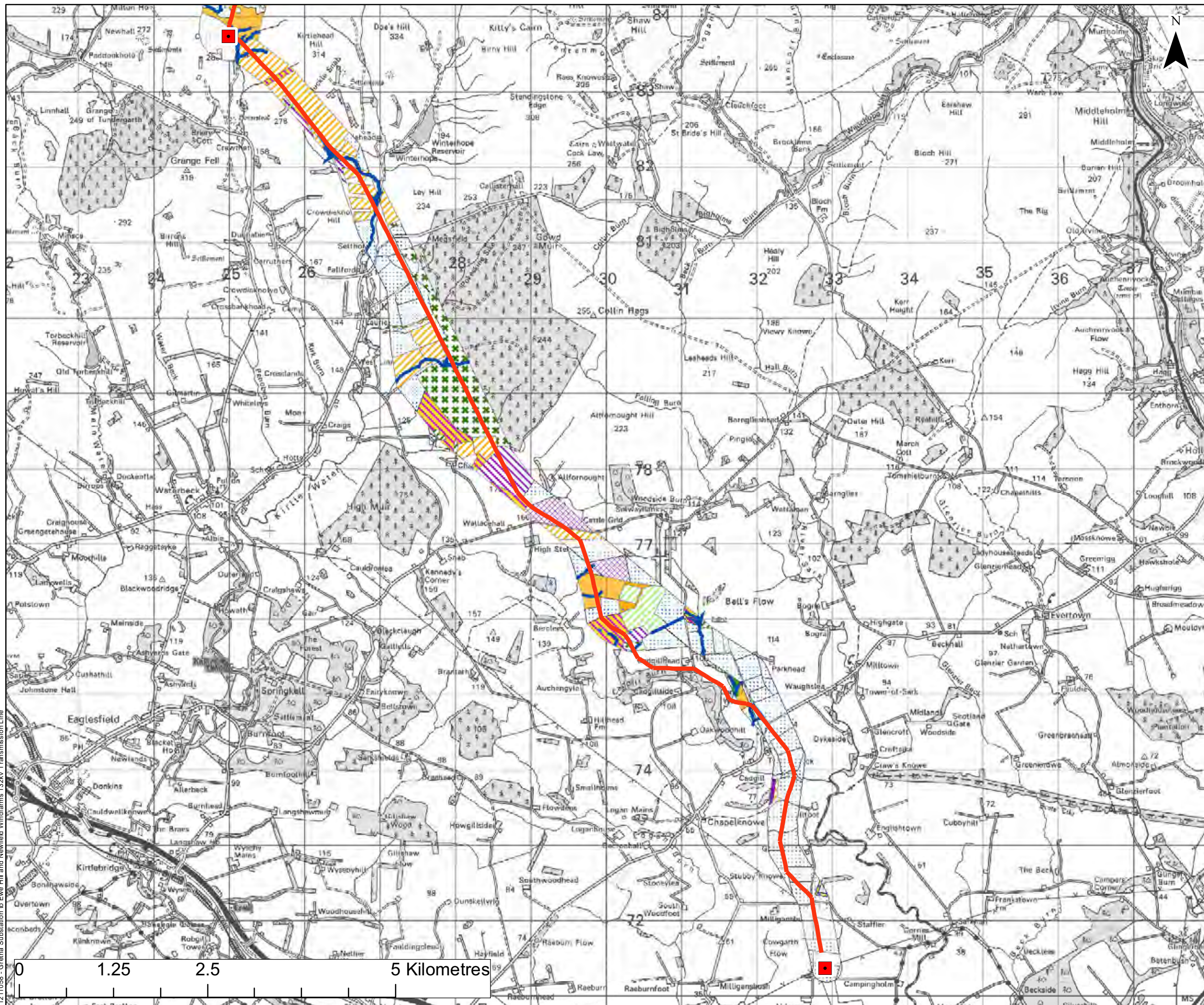
**Figure 6.18**  
Visual Effects - North Route

Size : A3  
Project : Gretna Substation to Ewehill and Newfield Windfarms

**SP TRANSMISSION**

Date: December 2010  
Revision: -  
Drawn by: SC  
Checked by: SYI





**Legend**

- Transmission Line Alignment
- Proposed Substation
- Running Water
- Standing water
- Mixed woodland plantation
- Coniferous woodland plantation
- Scattered scrub
- Unimproved neutral grassland
- Unimproved/Semi-improved acid grassland
- Improved/Poor semi-improved grassland
- Arable cultivated land
- Introduced scrub
- Raised sphagnum bog
- Dry modified bog
- Marshy grassland
- Wet modified bog
- Bare ground
- Buildings



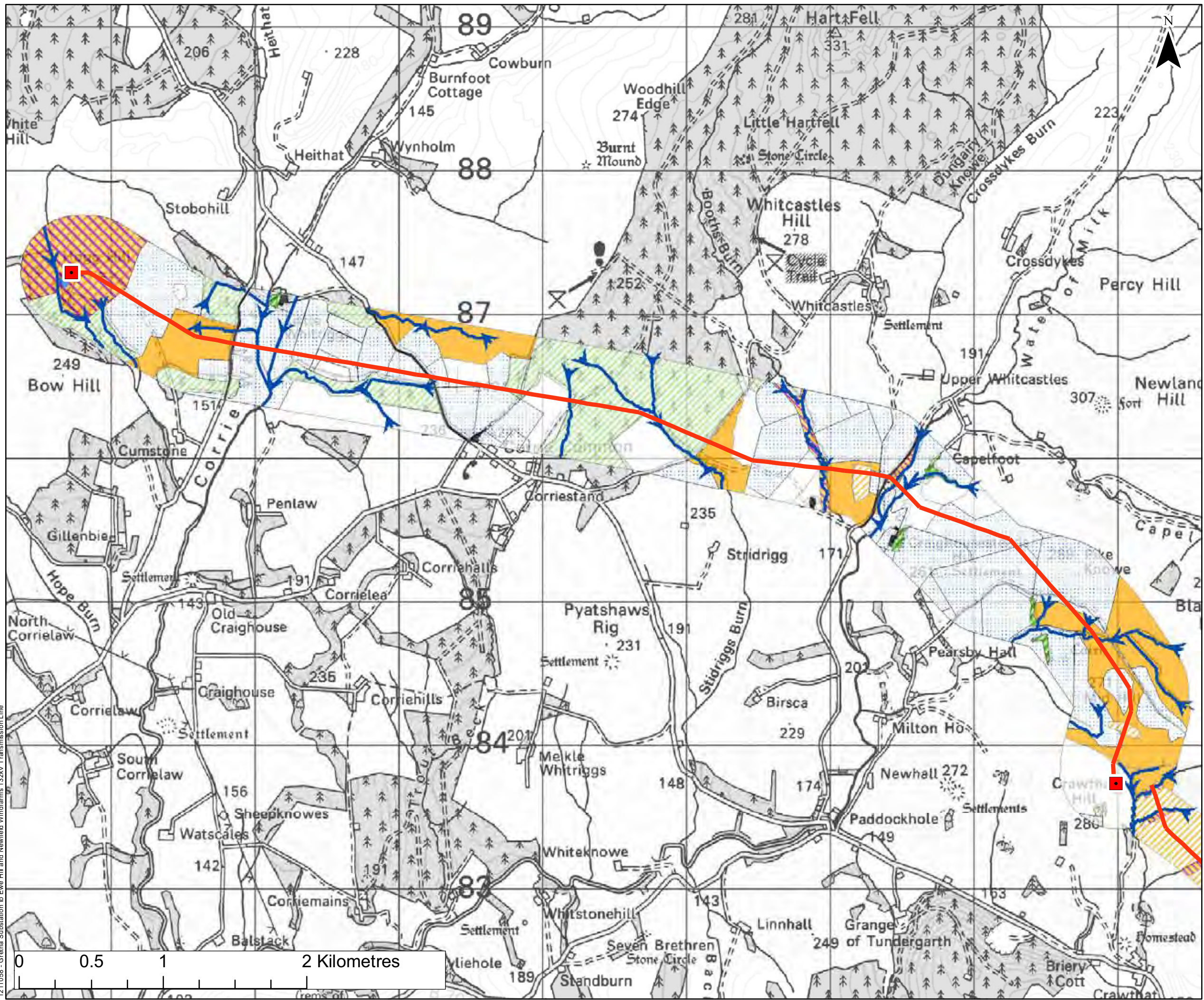
**Notes**

**Figure 7.1**  
**Phase 1 Habitat Map - Gretna to Ewe Hill**  
 Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

Date: 16.07.10  
 Revision: A  
 Drawn by: AD  
 Checked by: AR

1211056 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line





**Legend**

- Transmission Line Alignment
- Proposed Substation
- Running Water
- Standing water
- Mixed woodland plantation
- Coniferous woodland plantation
- Scattered scrub
- Unimproved neutral grassland
- Unimproved/Semi-improved acid grassland
- Improved/Poor semi-improved grassland
- Arable cultivated land
- Introduced scrub
- Raised sphagnum bog
- Dry modified bog
- Marshy grassland
- Wet heath/acid grassland mosaic
- Wet modified bog
- Bare ground
- Buildings/Hardstanding



**Notes**

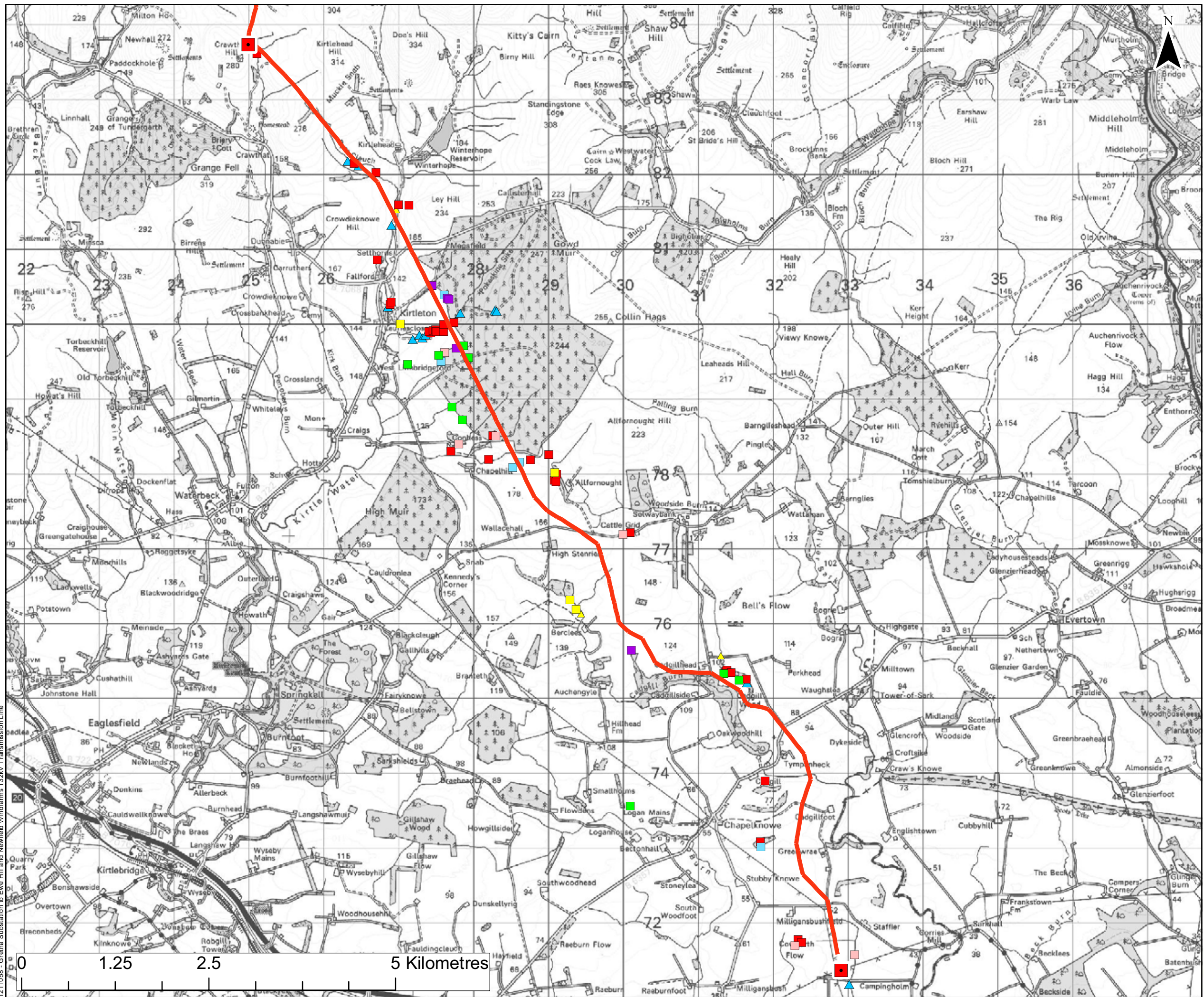
Figure 7.2  
Phase 1 Habitat Map - Ewe Hill to Newfield

Size: A3  
Scale: Not to Scale  
Project: 1211554 - Greta Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

Date: 16.07.10  
Revision: A  
Drawn by: AD  
Checked by: AR

1211058 - Greta Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line





**Legend**

- Transmission Line Alignment
- Proposed Substation

**Badger Field Signs**


- Sett
- Prints
- Snuffle Hole
- Path & Prints
- ▲ Dropping
- Latrine

**Otter Field Signs**

- ▲ Prints
- ▲ Spraint
- ▲ Spraint & Prints

**Water Vole Field Signs**

- ◆ Burrow & Dropping



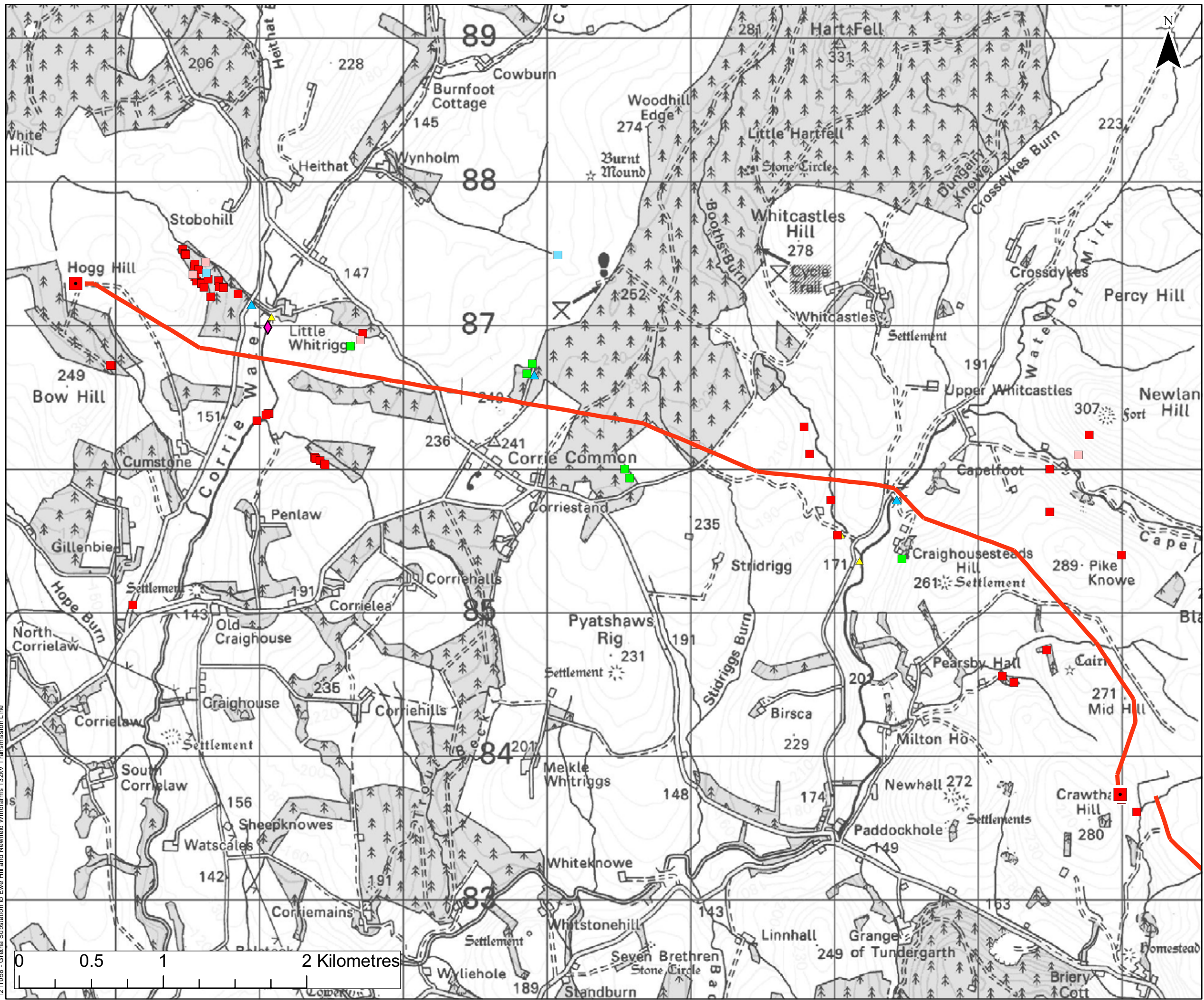
**Notes**

**Figure 7.3**  
**Protected Species from Grenta to Ewe Hill**  
 Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Grenta Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

 Date: 16.07.10  
 Revision: A  
 Drawn by: AD  
 Checked by: AR

1211058 - Grenta Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line





**Legend**

- Transmission Line Alignment
- Proposed Substation

**Badger Field Signs**

- Sett
- Prints
- Snuffle Hole
- Path & Prints
- Dropping
- Latrine

**Otter Field Signs**

- Prints
- Sprint
- Sprint & Prints

**Water Vole Field Signs**

- Burrow & Dropping

**Notes**

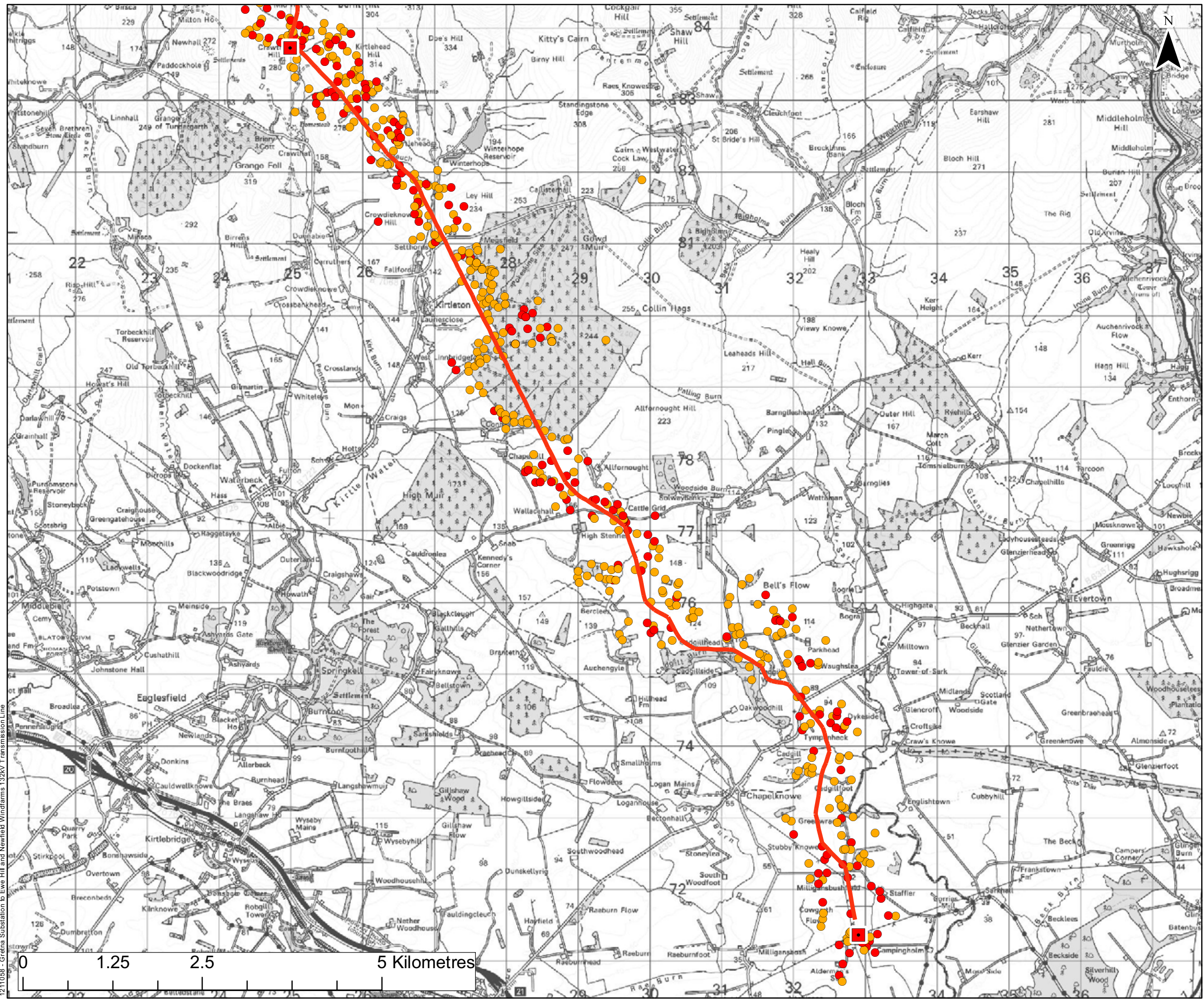
**Figure 7.4**  
 Protected Species from Ewe Hill to Newfield

Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Greta Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

|  |             |          |
|--|-------------|----------|
|  | Date:       | 16.07.10 |
|  | Revision:   | A        |
|  | Drawn by:   | AD       |
|  | Checked by: | AR       |

1211058 - Greta Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line






**Legend**

- Transmission Line Alignment
- Proposed Substation

**Birds of Conservation Concern Criteria**

- Red
- Amber



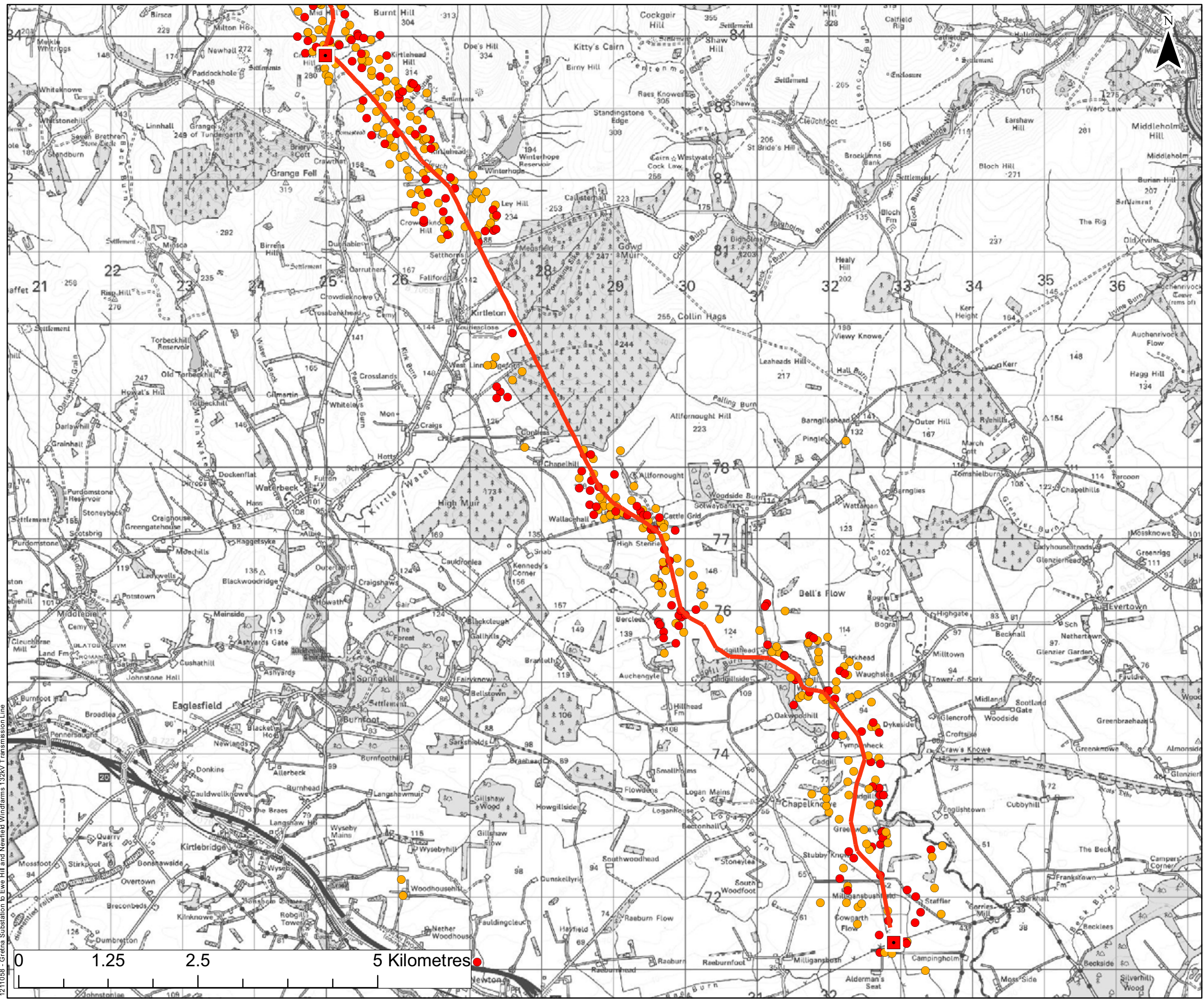
**Notes**

**Figure 7.5a**  
 Distribution of Breeding Birds - April  
 Gretna to Ewe Hill  
 Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

|   |   |
|---|---|
|  | Date: 26.07.10<br>Revision: A<br>Drawn by: AD<br>Checked by: AR |
|---|---|

1211058 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line





**Legend**

- Transmission Line Alignment
- Proposed Substation

**Birds of Conservation Concern Criteria**

- Red
- Amber

**GILLESPIES WSP**

**Notes**

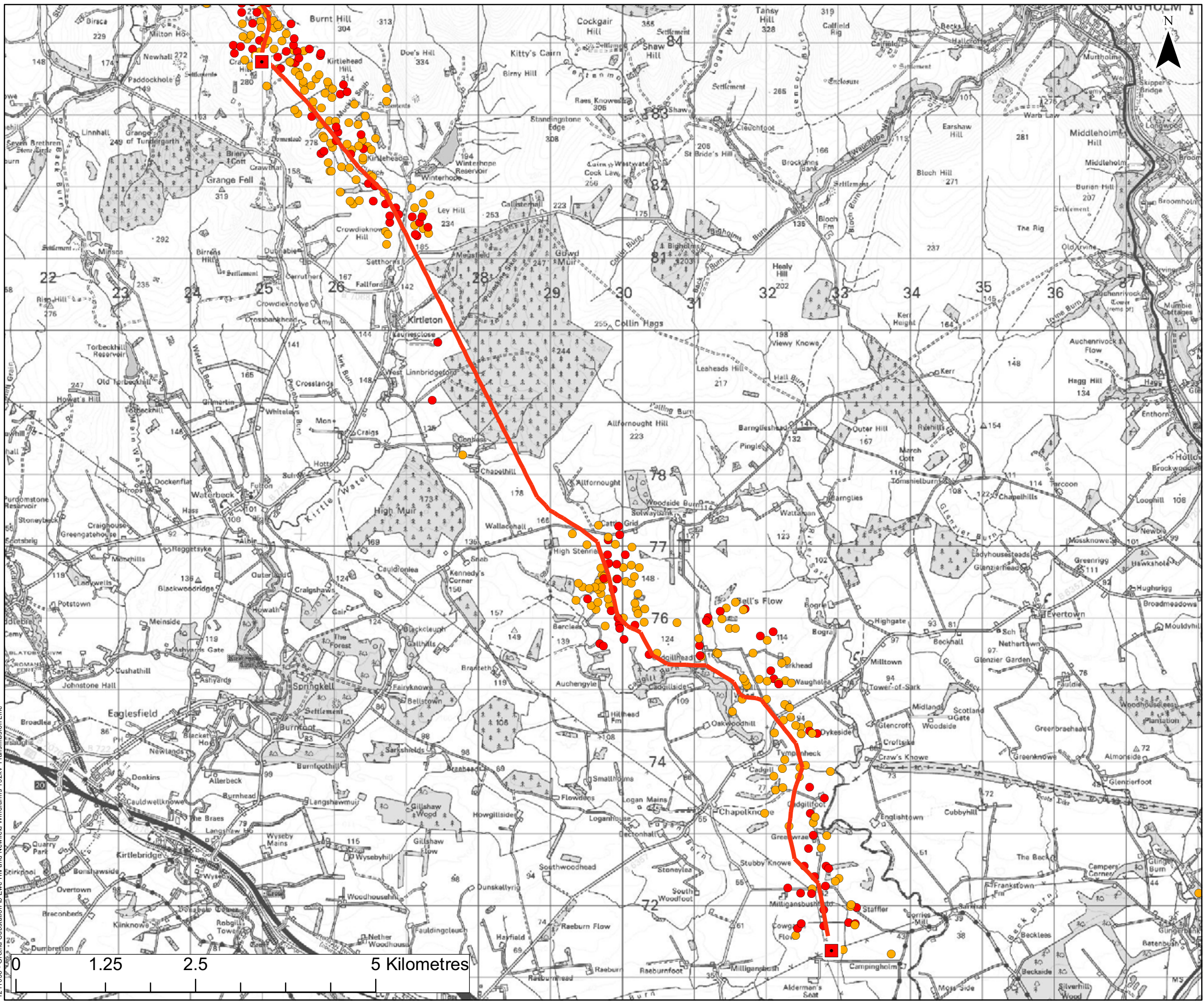
**Figure 7.5b**  
 Distribution of Breeding Birds - May  
 Gretna to Ewe Hill  
 Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill  
 and Newfield Windfarms 132kV  
 Transmission Line

**SP TRANSMISSION**

|             |          |
|-------------|----------|
| Date:       | 26.07.10 |
| Revision:   | A        |
| Drawn by:   | AD       |
| Checked by: | AR       |

1211056 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line






**Legend**

- Transmission Line Alignment
- Proposed Substation

**Birds of Conservation Concern Criteria**

- Red
- Amber



**Notes**

**Figure 7.5c**  
 Distribution of Breeding Birds - June  
 Gretna to Ewe Hill

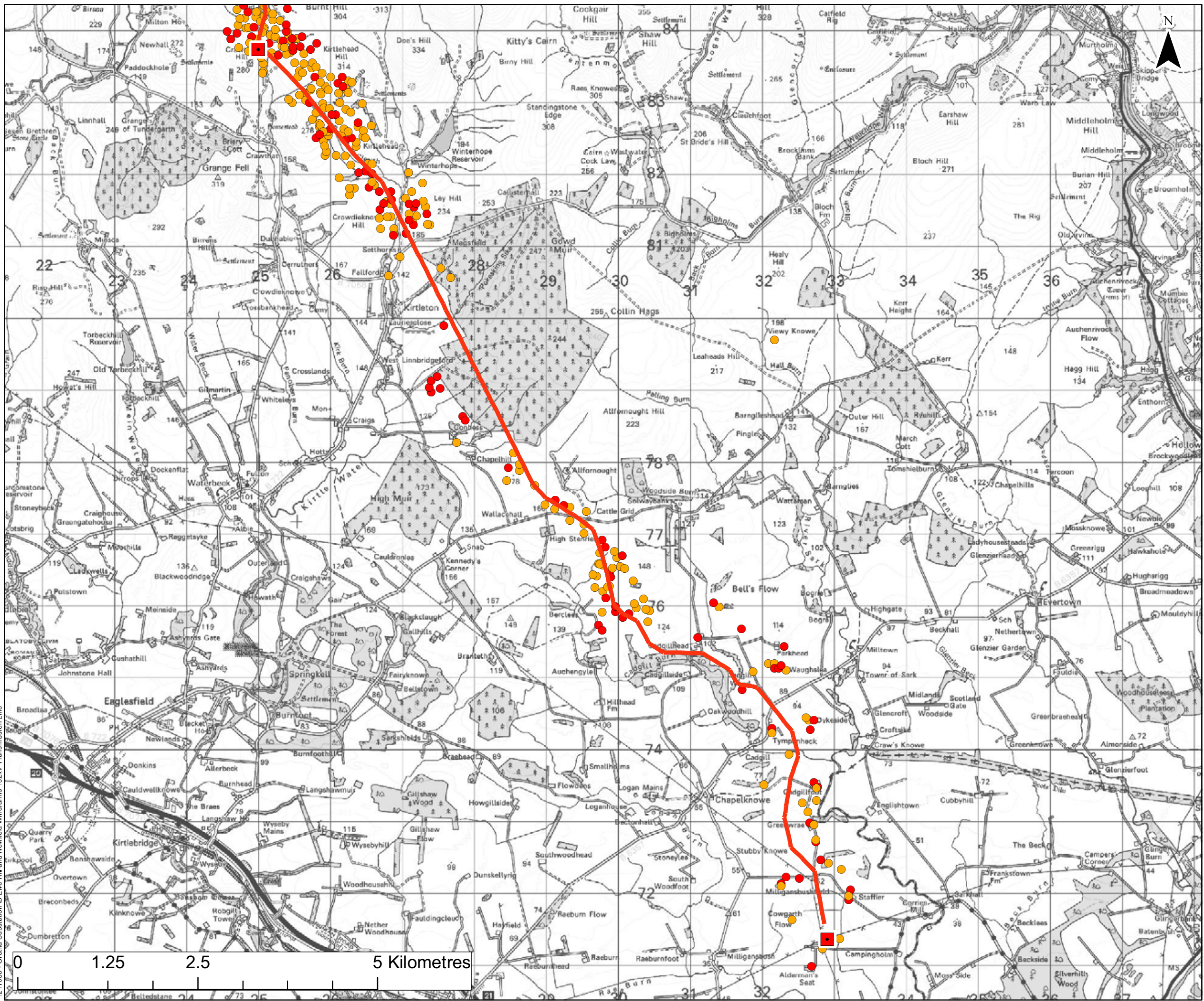
Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line



|             |          |
|-------------|----------|
| Date:       | 26.07.10 |
| Revision:   | A        |
| Drawn by:   | AD       |
| Checked by: | AR       |

1211058 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line





**Legend**

- Transmission Line Alignment
- Proposed Substation

*Birds of Conservation Concern Criteria*

- Red
- Amber



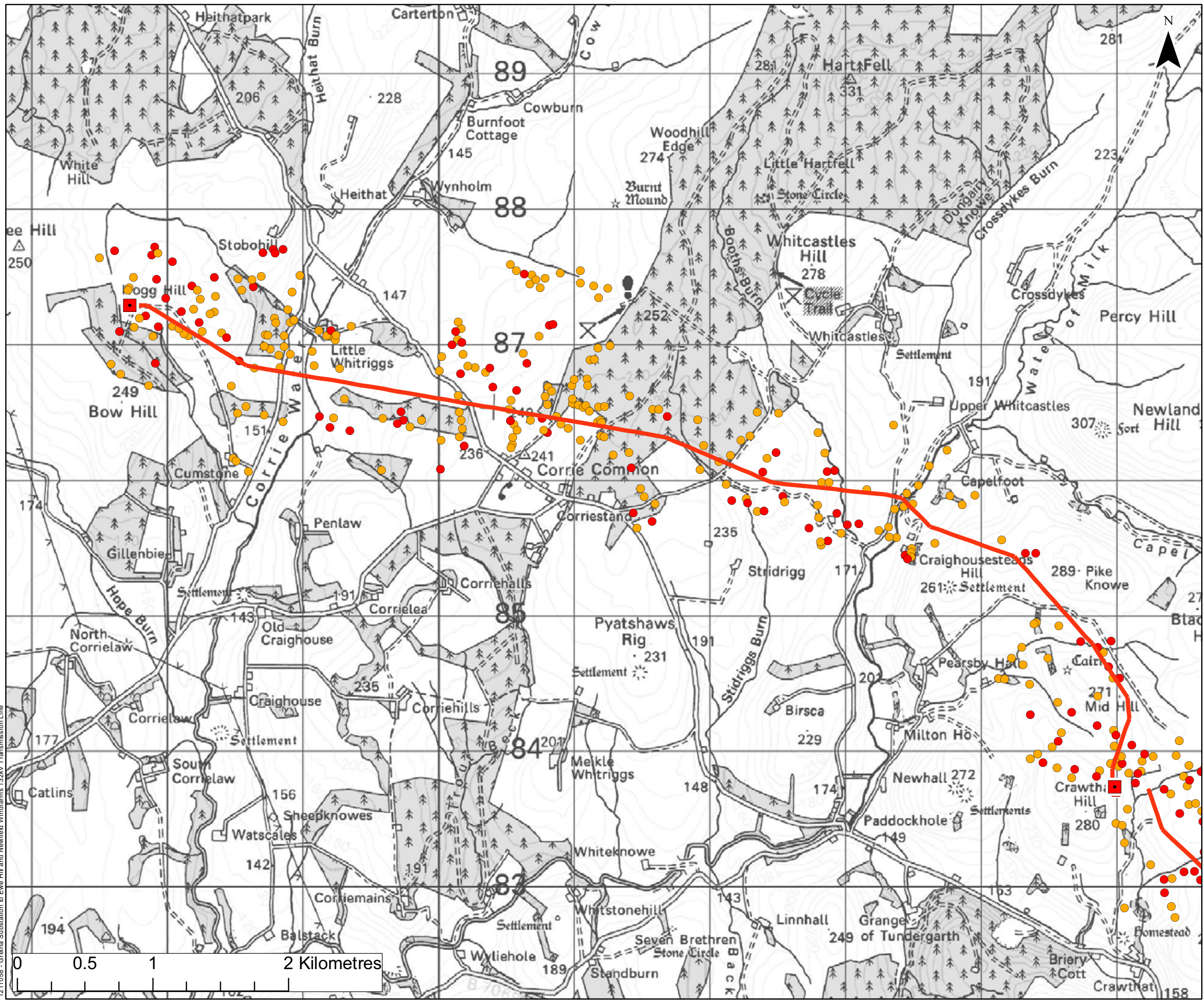
**Notes**

Figure 7.5d  
 Distribution of Breeding Birds - July  
 Gretna to Ewe Hill  
 Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

Date: 26.07.10  
 Revision: A  
 Drawn by: AD  
 Checked by: AR

1211056 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line





**Legend**

- Transmission Line Alignment
- Proposed Substation

*Birds of Conservation Concern Criteria*

- Red
- Amber

**Notes**

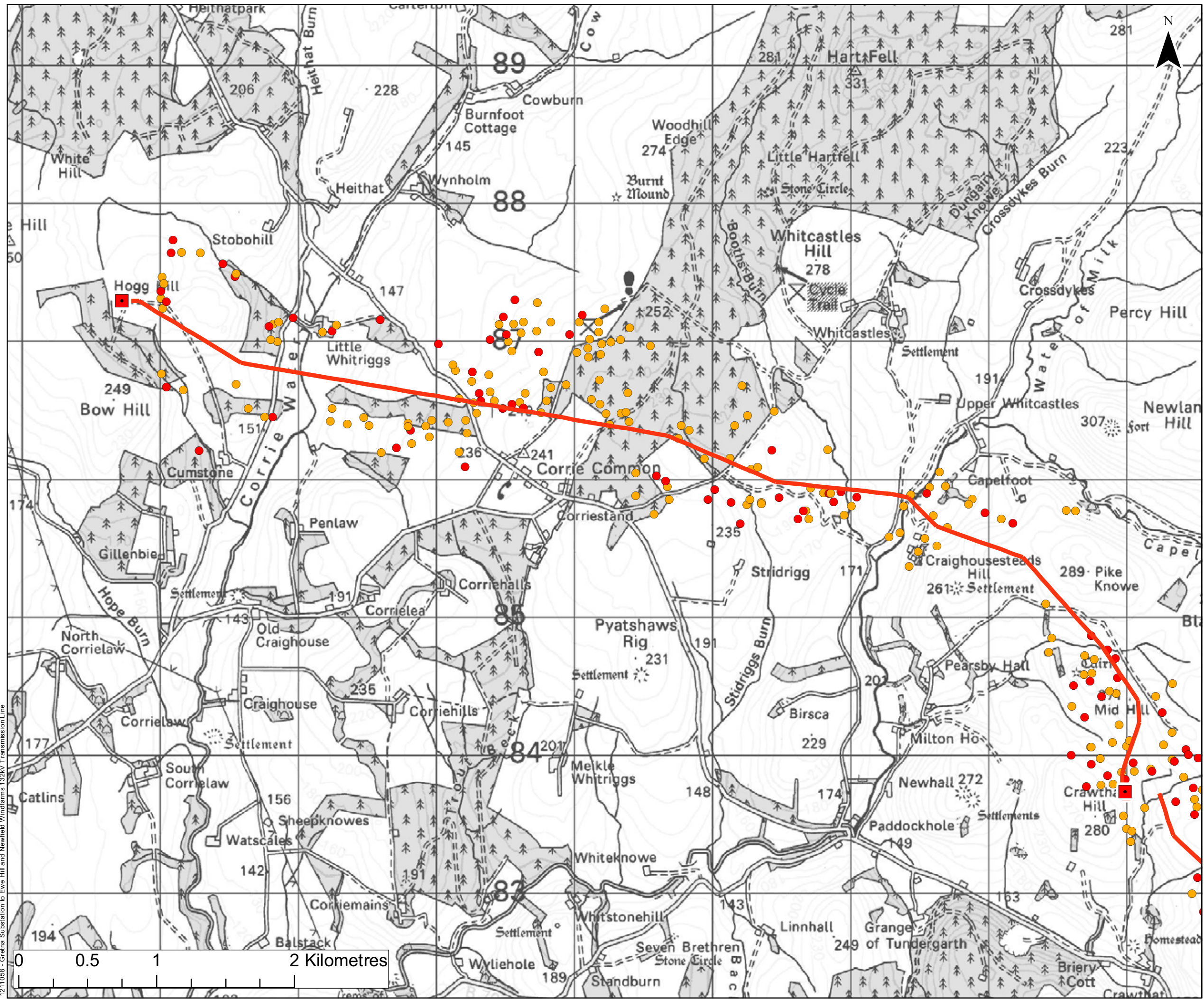
Figure 7.6a  
 Distribution of Breeding Birds - April  
 Ewe Hill to Newfield

Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

|  |                |
|--|----------------|
|  | Date: 26.07.10 |
|  | Revision: A    |
|  | Drawn by: AD   |
|  | Checked by: AR |

1211058 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line






**Legend**

- Transmission Line Alignment
- Proposed Substation

*Birds of Conservation Concern Criteria*

- Red
- Amber



**Notes**

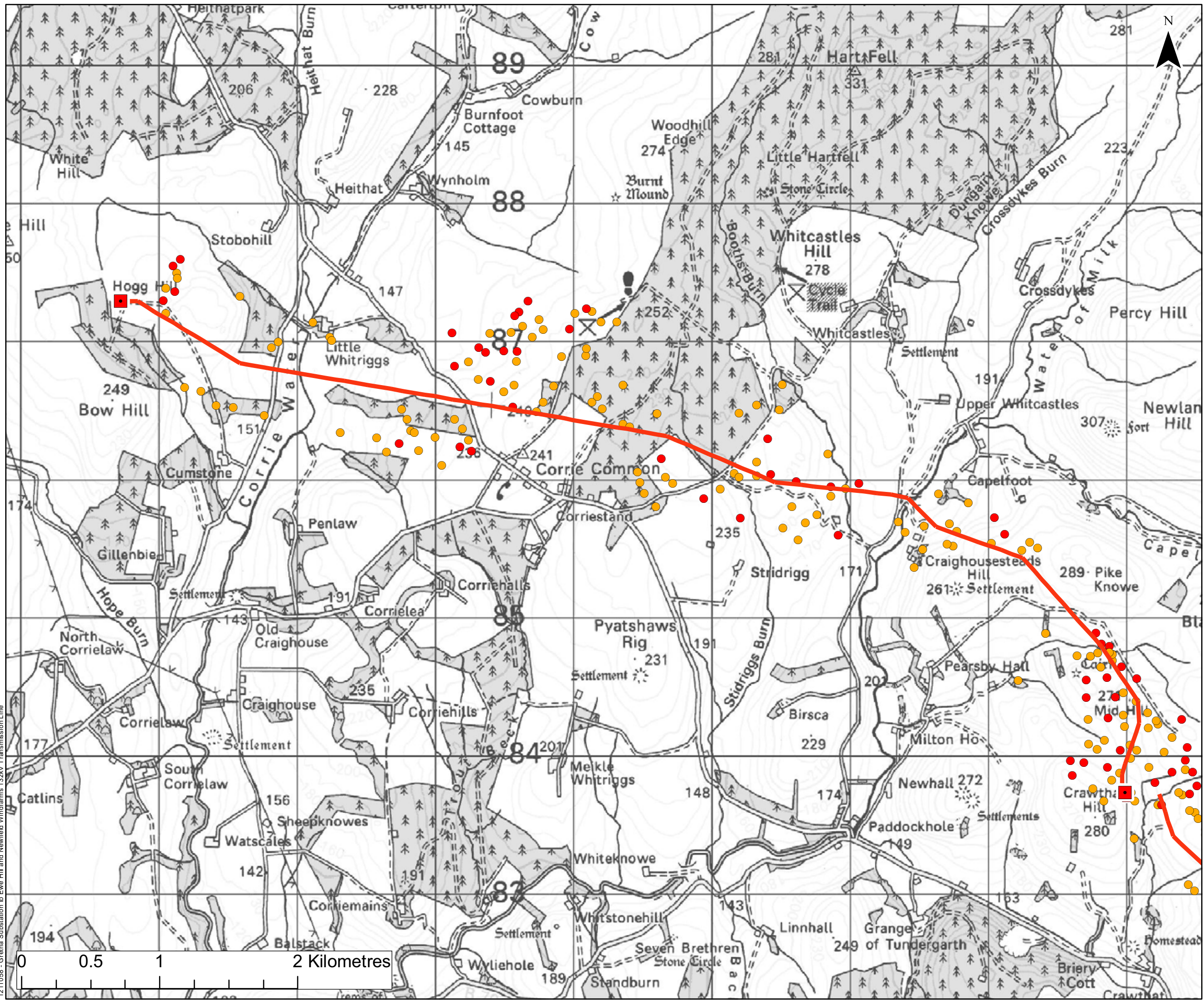
**Figure 7.6b**  
 Distribution of Breeding Birds - May  
 Ewe Hill to Newfield

Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Greta Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

|   |             |          |
|---|-------------|----------|
|  | Date:       | 26.07.10 |
|   | Revision:   | A        |
|   | Drawn by:   | AD       |
|   | Checked by: | AR       |

1211056 - Greta Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line






**Legend**

- Transmission Line Alignment
- Proposed Substation

**Birds of Conservation Concern Criteria**

- Red
- Amber



**Notes**

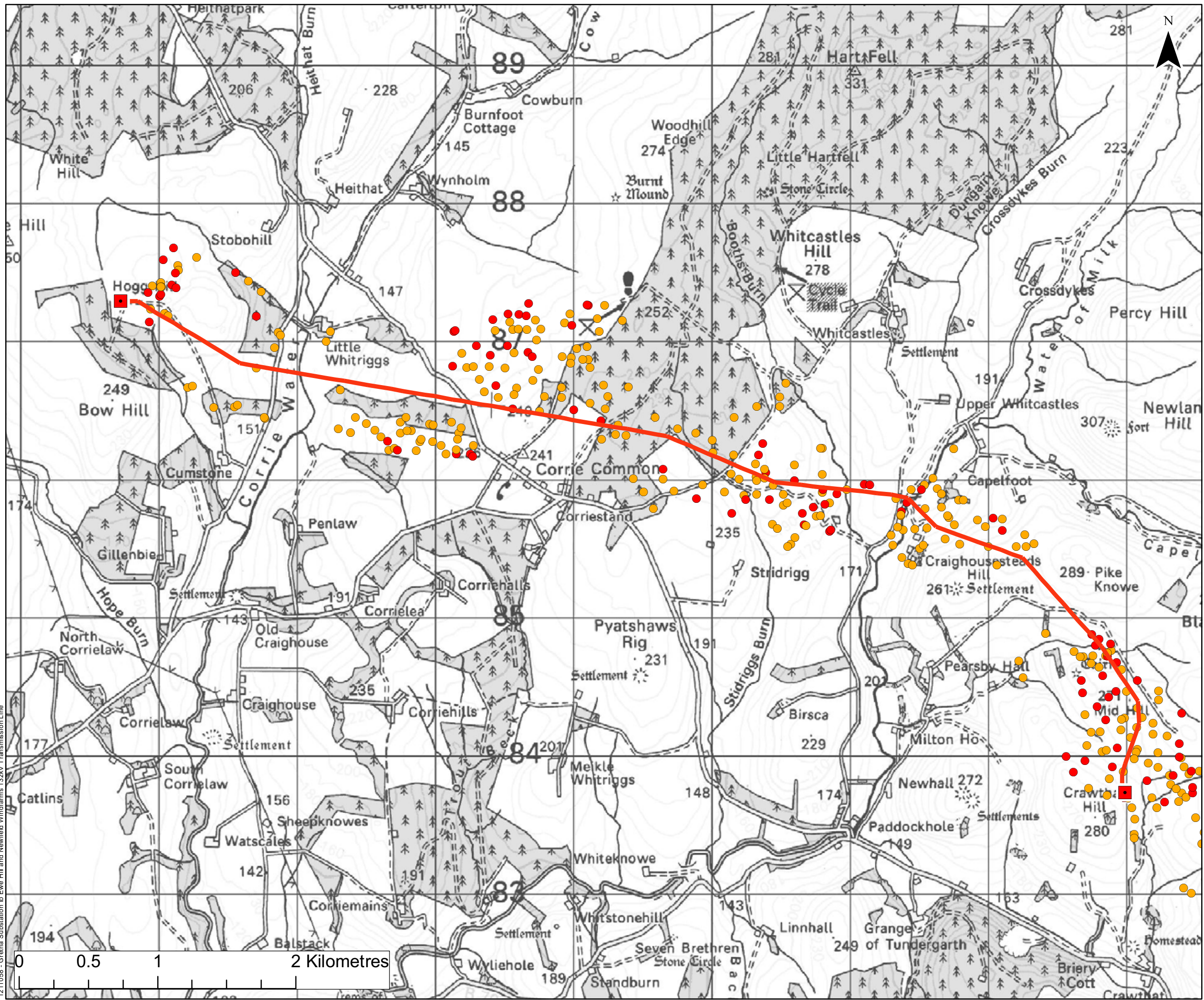
**Figure 7.6c**  
 Distribution of Breeding Birds - June  
 Ewe Hill to Newfield

Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

|   |             |          |
|---|-------------|----------|
|  | Date:       | 26.07.10 |
|   | Revision:   | A        |
|   | Drawn by:   | AD       |
|   | Checked by: | AR       |

1211056 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line





**Legend**

- Transmission Line Alignment
- Proposed Substation

*Birds of Conservation Concern Criteria*

- Red
- Amber

**GILLESPIES WSP**

**Notes**

Figure 7.6d  
 Distribution of Breeding Birds - July  
 Ewe Hill to Newfield

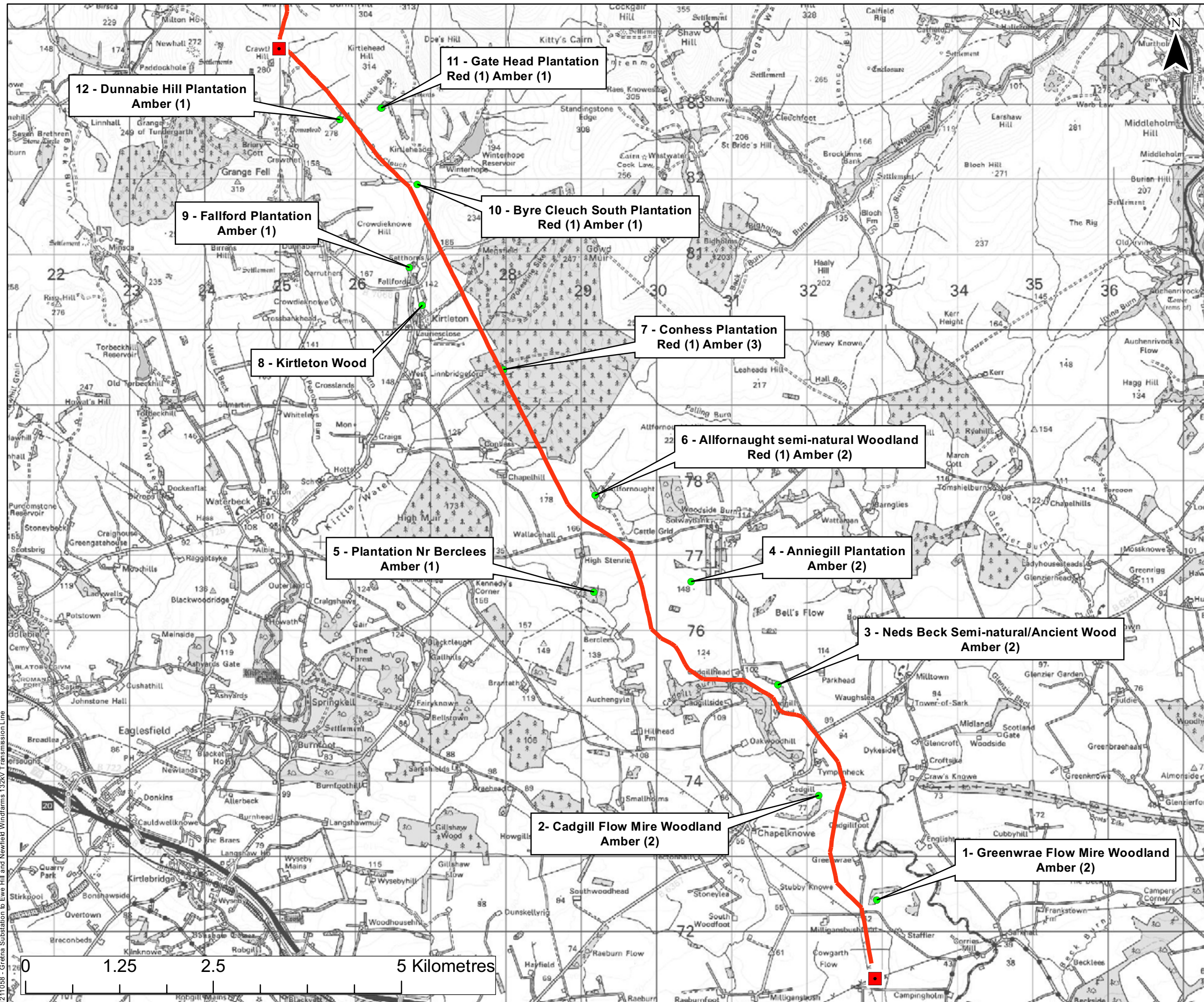
Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

Date: 26.07.10  
 Revision: A  
 Drawn by: AD  
 Checked by: AR

**SP TRANSMISSION**

1211056 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line





**Legend**

- Transmission Line Alignment
- Proposed Substation

**GILLESPIES WSP**

**Notes**

For further information regarding the woodlands and the birds species identified at each site, refer to Table 4.2 Gretna to Ewe Hill, in Appendix 7.4.

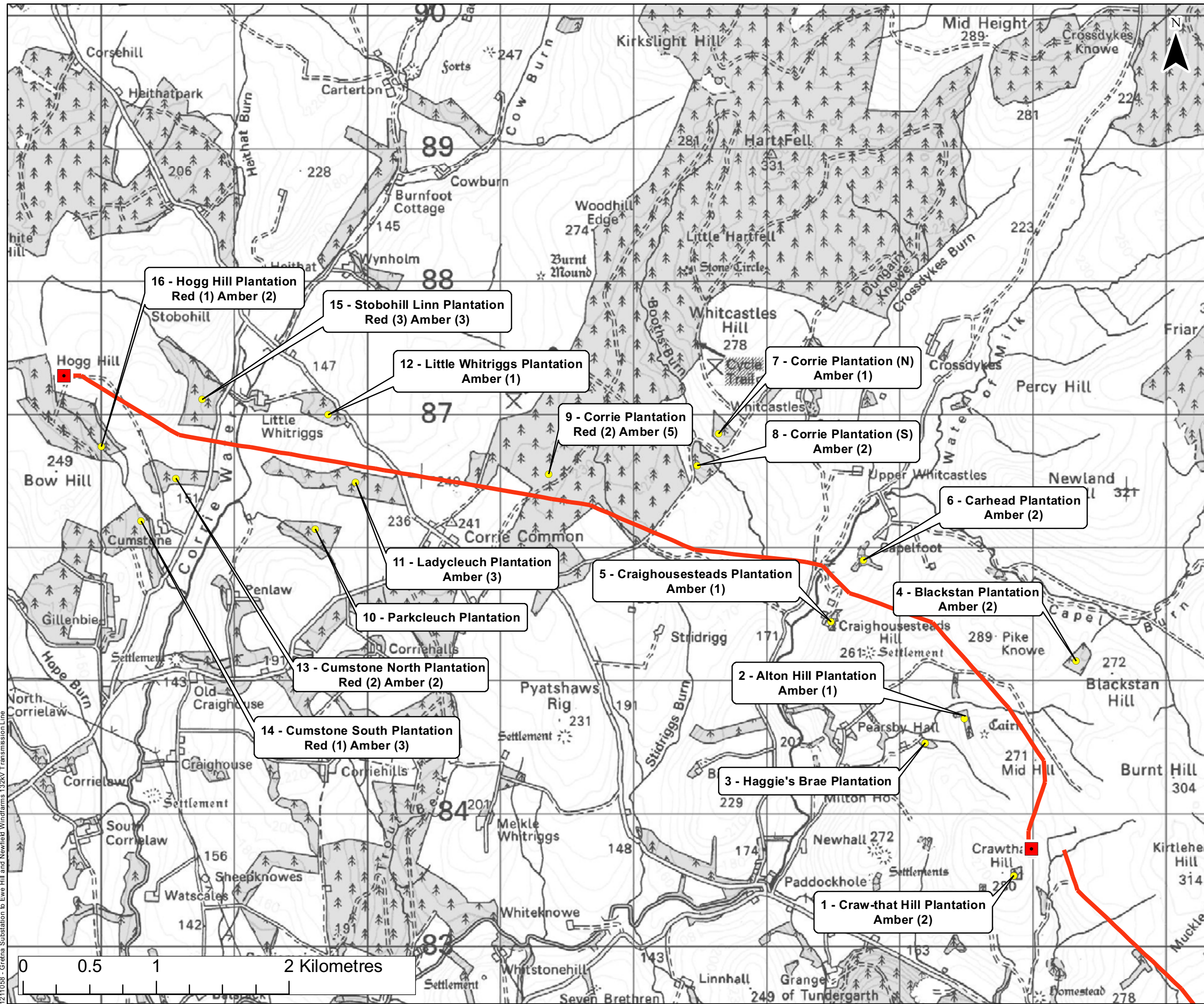
**Figure 7.7**  
 Location of Woodland Blocks from Gretna to Ewe Hill

Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

Date: 19.07.10  
 Revision: A  
 Drawn by: AD  
 Checked by: AR

1211058 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line





**Legend**

- Transmission Line Alignment
- Proposed Substation

**GILLESPIES WSP**

**Notes**

For further information regarding the woodlands and the birds species identified at each site, refer to Table 4.2 Ewe Hill to Newfield, in Appendix 7.4.

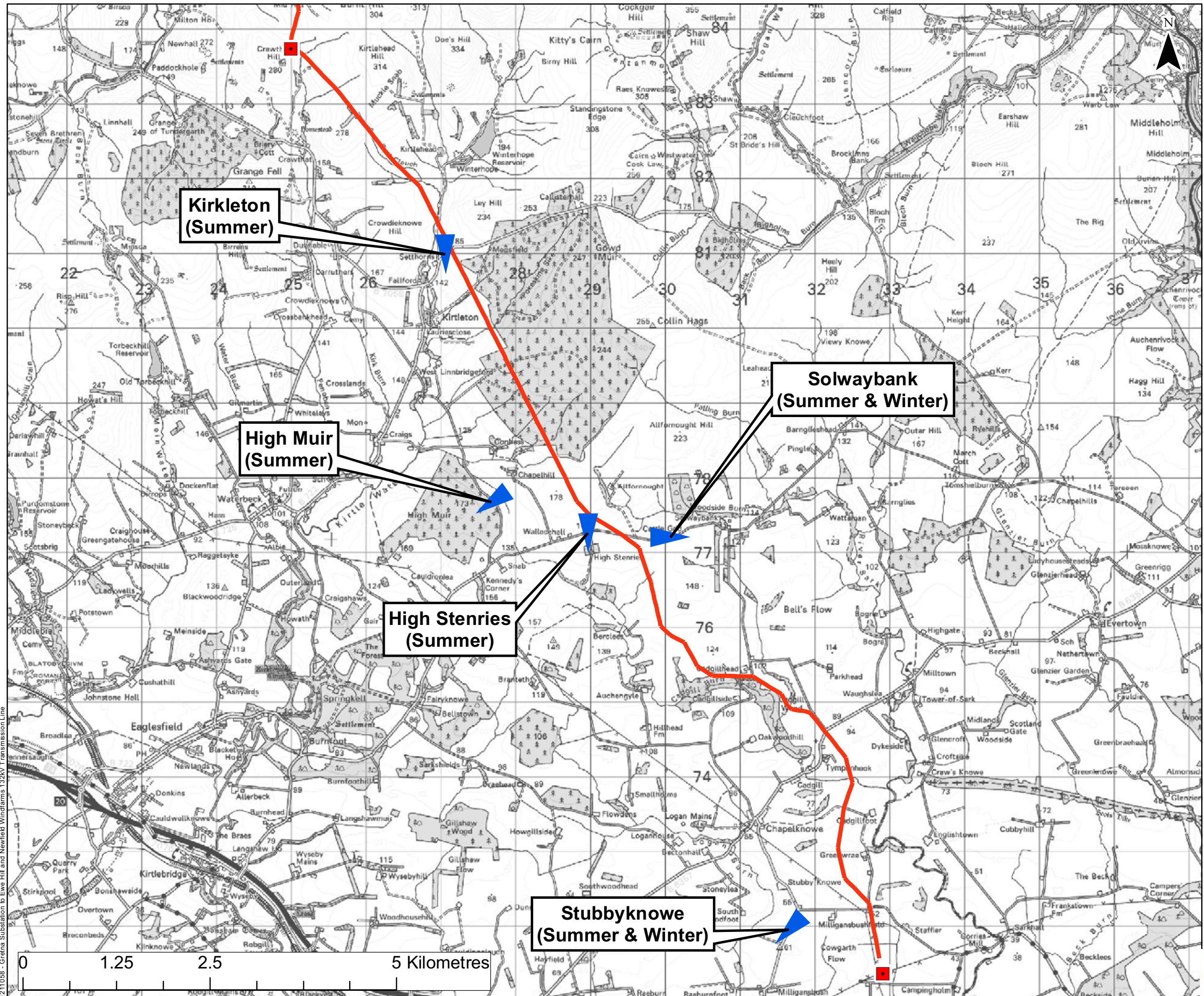
**Figure 7.8**  
 Location of Woodland Blocks from Ewe Hill to Newfield

Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Greta Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

Date: 19.07.10  
 Revision: A  
 Drawn by: AD  
 Checked by: AR

1211058 - Greta Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line





**Legend**

- Transmission Line Alignment
- Proposed Substation
- ▲ Vantage Point Location



**Notes**

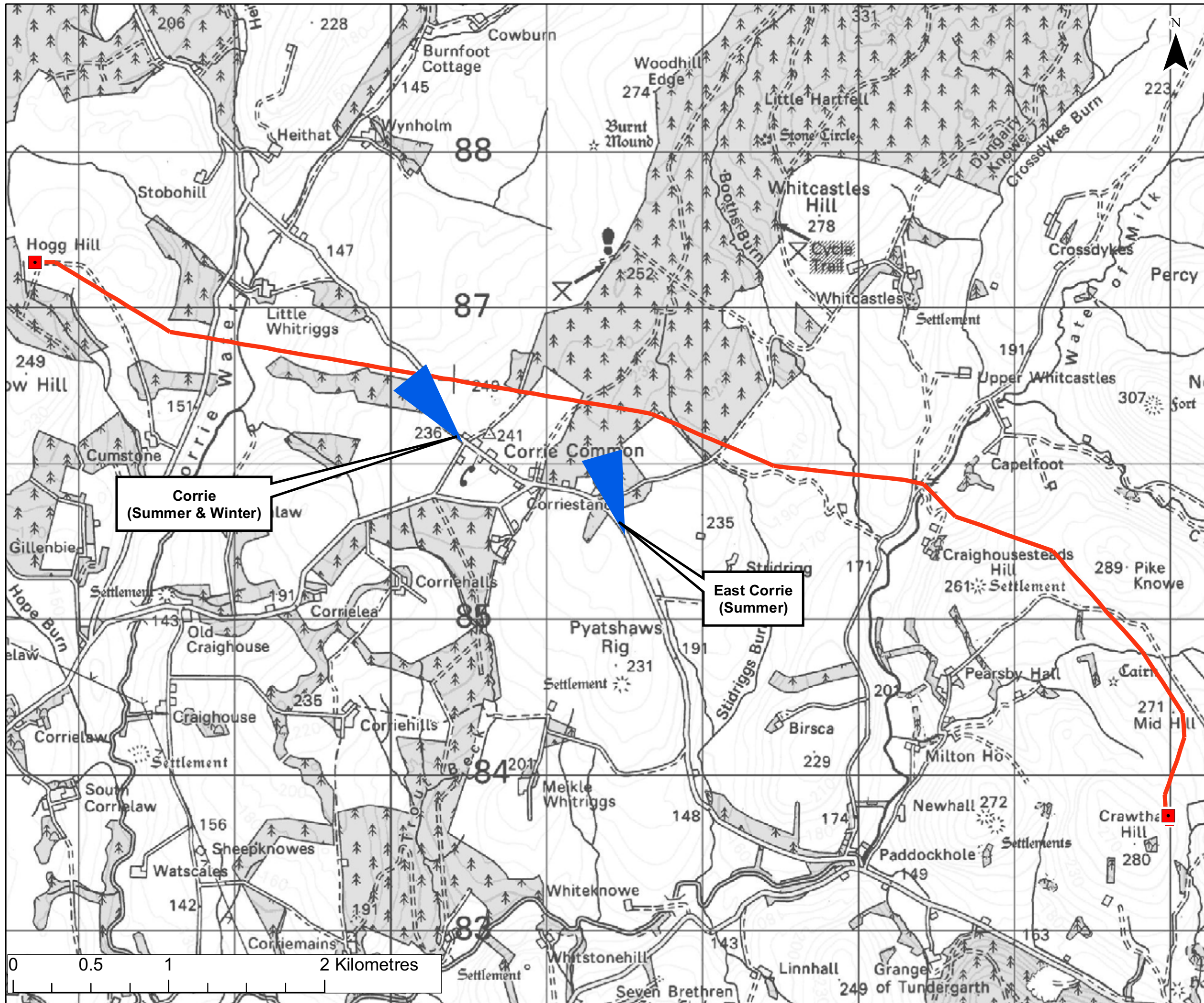
**Figure 7.9**  
 Location of Vantage Points  
 From Gretna to Ewe Hill  
 Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

**SP TRANSMISSION**

Date: 02.09.10  
 Revision: A  
 Drawn by: AD  
 Checked by: AR

1211058 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line





**Legend**

- Transmission Line Alignment
- Proposed Substation
- ▲ Vantage Point Location

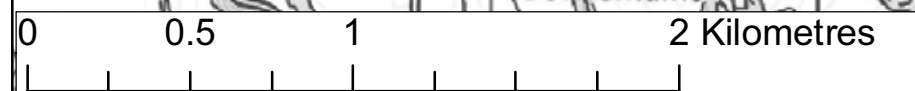
N

**GILLESPIES WSP**

**Notes**

Figure 7.10  
 Location of Vantage Points  
 From Ewe Hill to Newfield

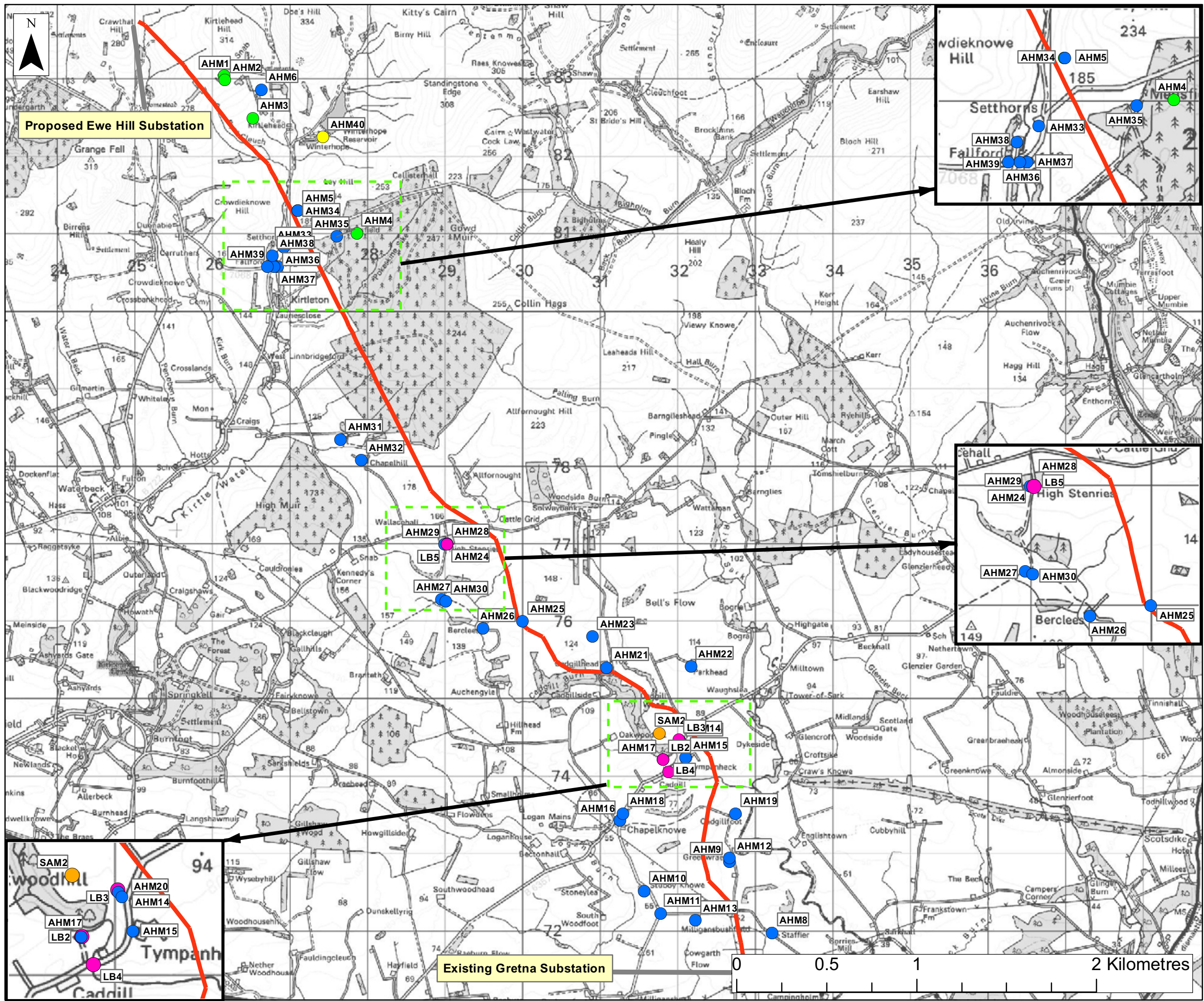
Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Greta Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line



**SP TRANSMISSION**

Date: 02.09.10  
 Revision: A  
 Drawn by: AD  
 Checked by: AR





**Legend**

- Transmission Line Alignment
- Listed Building
- Scheduled Ancient Monument

**Ancient & Historical Monuments**

- Post Medieval
- Prehistoric
- Unknown

Enlarged Area (Inset Map)



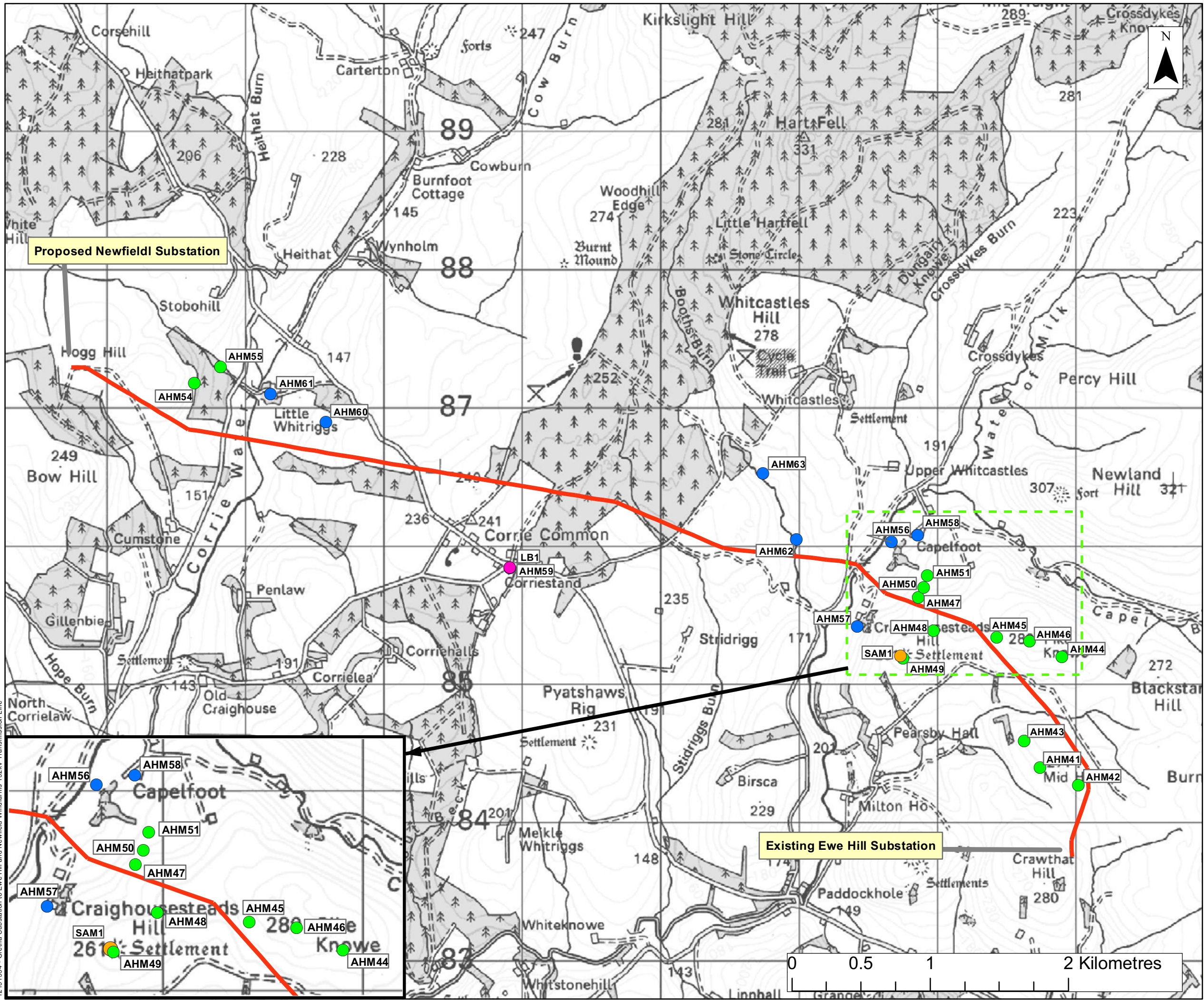
**Notes**

Figure 8.1 Gretna to Ewe Hill  
Archaeological Records

Size: A3  
Scale: Not to Scale  
Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

Date: 06.07.10  
Revision: -  
Drawn by: AD  
Checked by: AR





**Legend**

- Transmission Line Alignment
- Listed Building
- Scheduled Ancient Monument

**Ancient & Historical Monuments**

- Post Medieval
- Prehistoric
- Unknown

Enlarged Area (Inset Map)

**GILLESPIES WSP**

**Notes**

**Figure 8.2 Ewe Hill to Newfield Archaeological Records**

Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

|  |                |
|--|----------------|
|  | Date: 06.07.10 |
|  | Revision: -    |
|  | Drawn by: AD   |
|  | Checked by: AR |

1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line





**Legend**

- TYPE 3 DITCH IN CUT
- TYPE 1 FILTER DITCH IN CUT
- TYPE 0 SIMPLE SWALE
- - - SMALL CULVERT
- DITCH TYPE D1



**Notes**

1. For drainage details refer to drawing S106757/P/011
2. This watercourse appears on Ordnance Survey 1:50,000 plans, and is therefore subject to The Water Environment (Controlled Activities)(Scotland) Regulations 2005. Consultation with SEPA will be carried out to determine what level of Authorisation is required for the culvert.  
The culvert has been sized by analysing the upstream catchment and determining its size using 5 meter DTM data. Furthermore, the culvert has been designed to accommodate a 1 in 100 year storm event plus 20% (to account for climate change) and is imbedded by 300mm to provide a natural culvert.

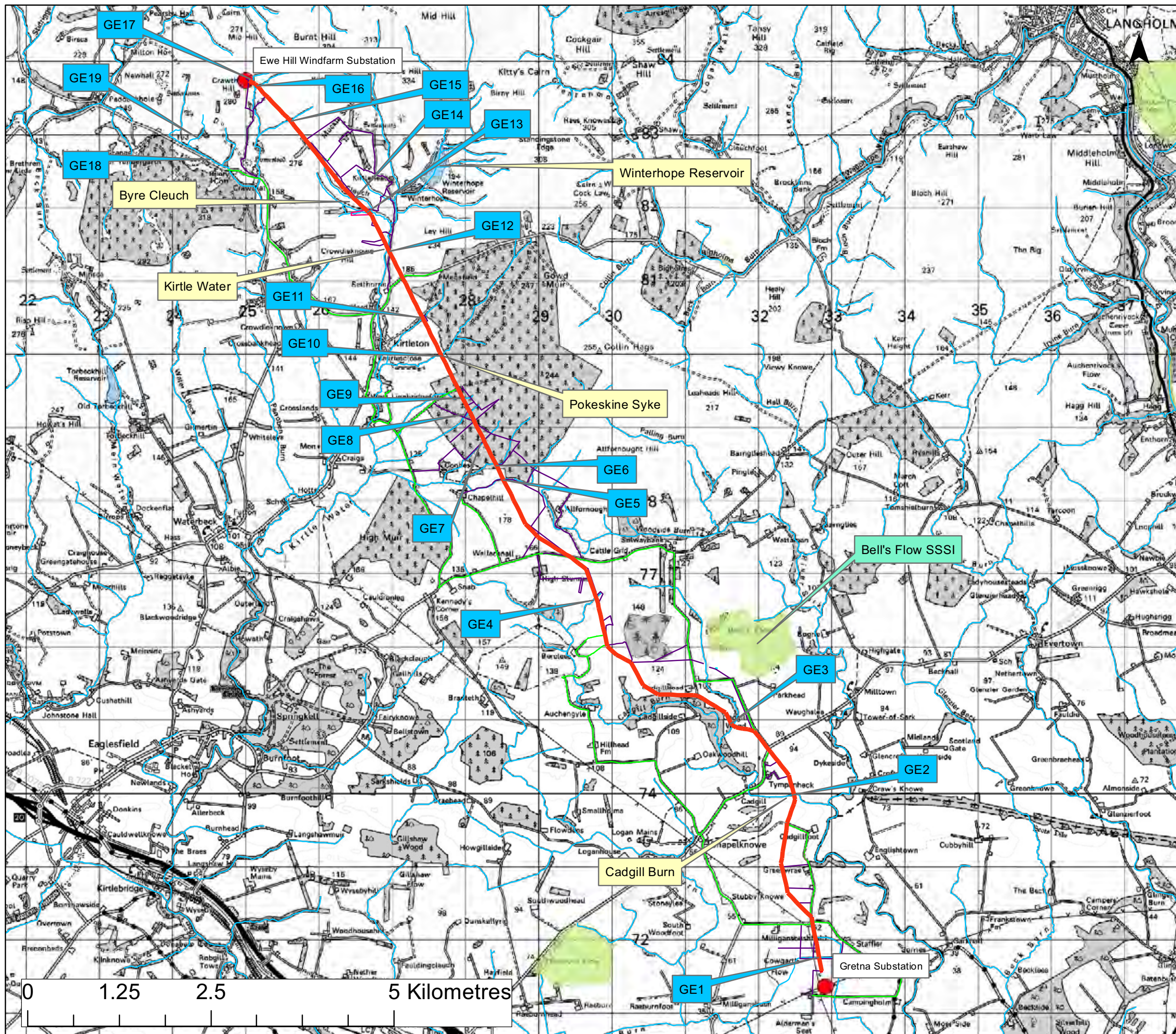
Reproduced from Scott Wilson drawing: S106757/P/010

**Figure 10.1**  
Access Track Drainage Plan

Size: A3  
Scale: Not to Scale  
Project: Greta Substation to Ewe Hill and Newfield Windfarms

|  |             |          |
|--|-------------|----------|
|  | Date:       | 06.07.10 |
|  | Revision:   | -        |
|  | Drawn by:   | AD       |
|  | Checked by: | AR       |





**Legend**

- Proposed OHL Alignment
- Watercourses
- Principle Access
- Secondary Access
- SSSI



**Notes**

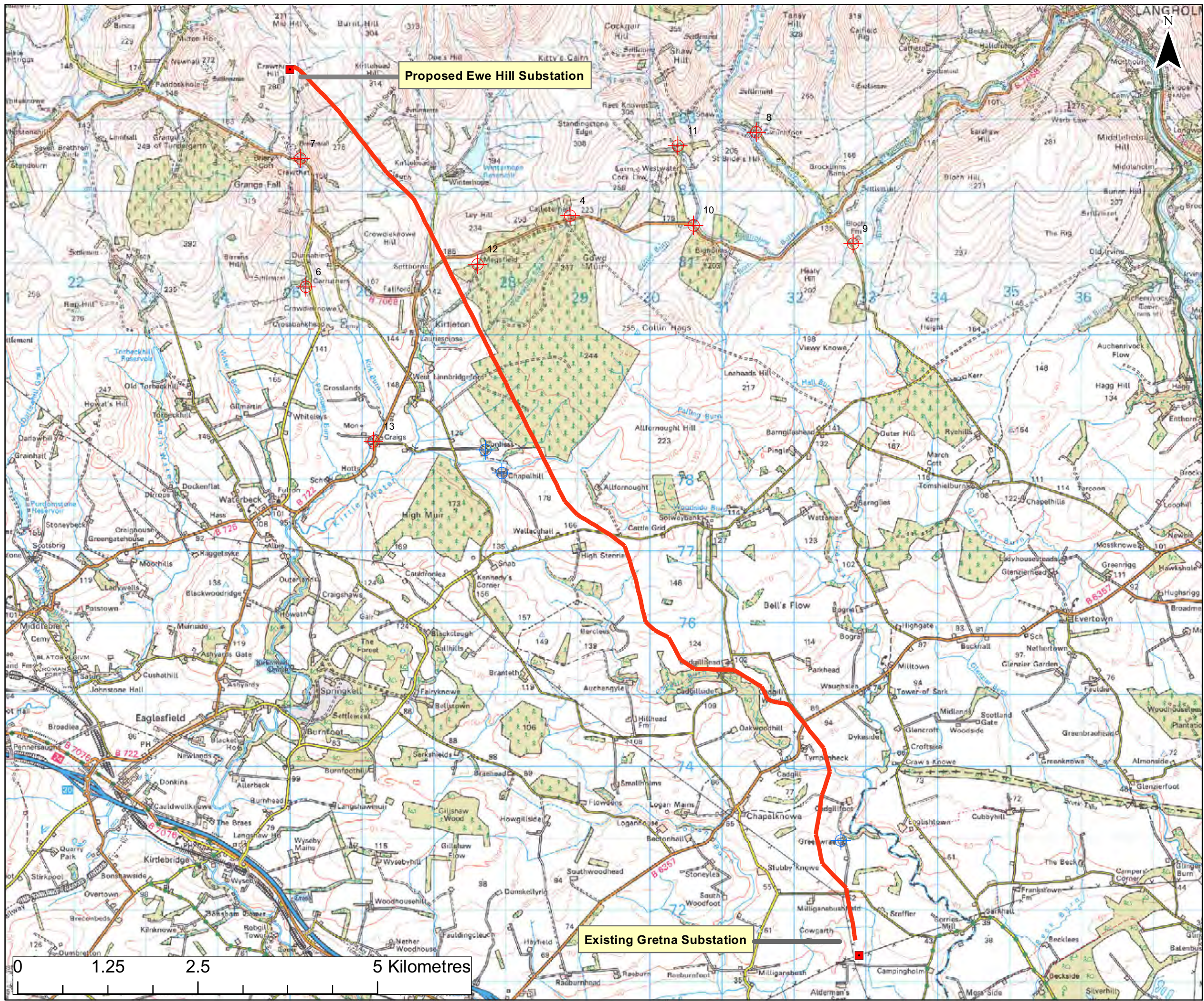
Figure 10.2 Gretna to Ewe Hill  
Watercourses and Access Tracks

Size: A3  
 Scale: Not to Scale  
 Project: Gretna Substation to Ewe Hill  
 and Newfield Windfarms



Date: 06.07.10  
 Revision: -  
 Drawn by: AD  
 Checked by: AR





**Legend**

- Substation
- Transmission Line Alignment
- ⊕ Dumfries & Galloway Council Private Water Supply Record
- ⊕ Scottish Agricultural College Private Water Supply Record



**Notes**

Figure 10.3 Gretna to Ewe Hill Private Water Supply Records

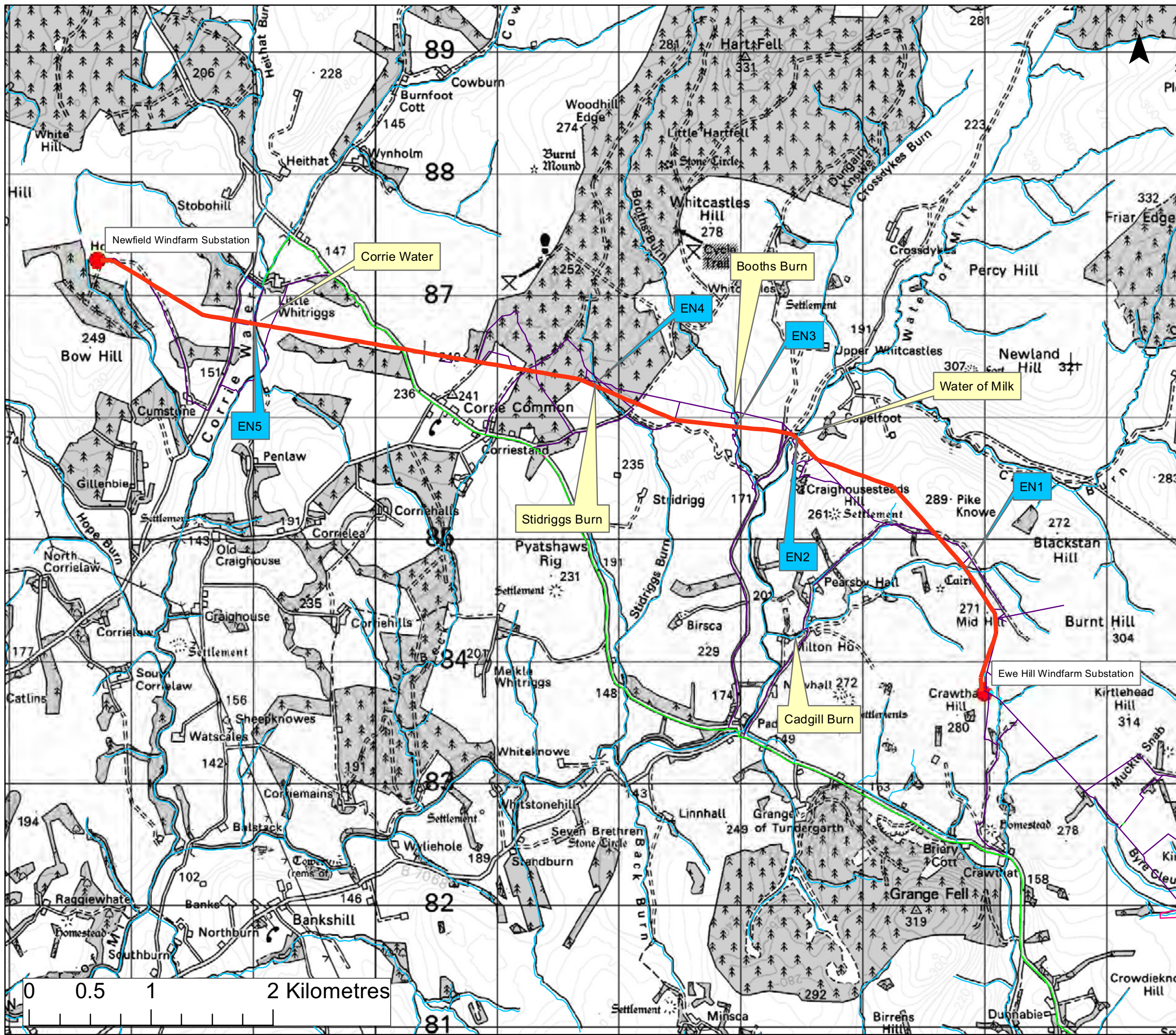
Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line



Date: 06.07.10  
 Revision: -  
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 Checked by: AR

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**Legend**

- Proposed OHL Alignment
- Watercourses
- Principle Access
- Secondary Access



**Notes**

Figure 10.4 Ewe Hill to Newfield Watercourses and Access Tracks

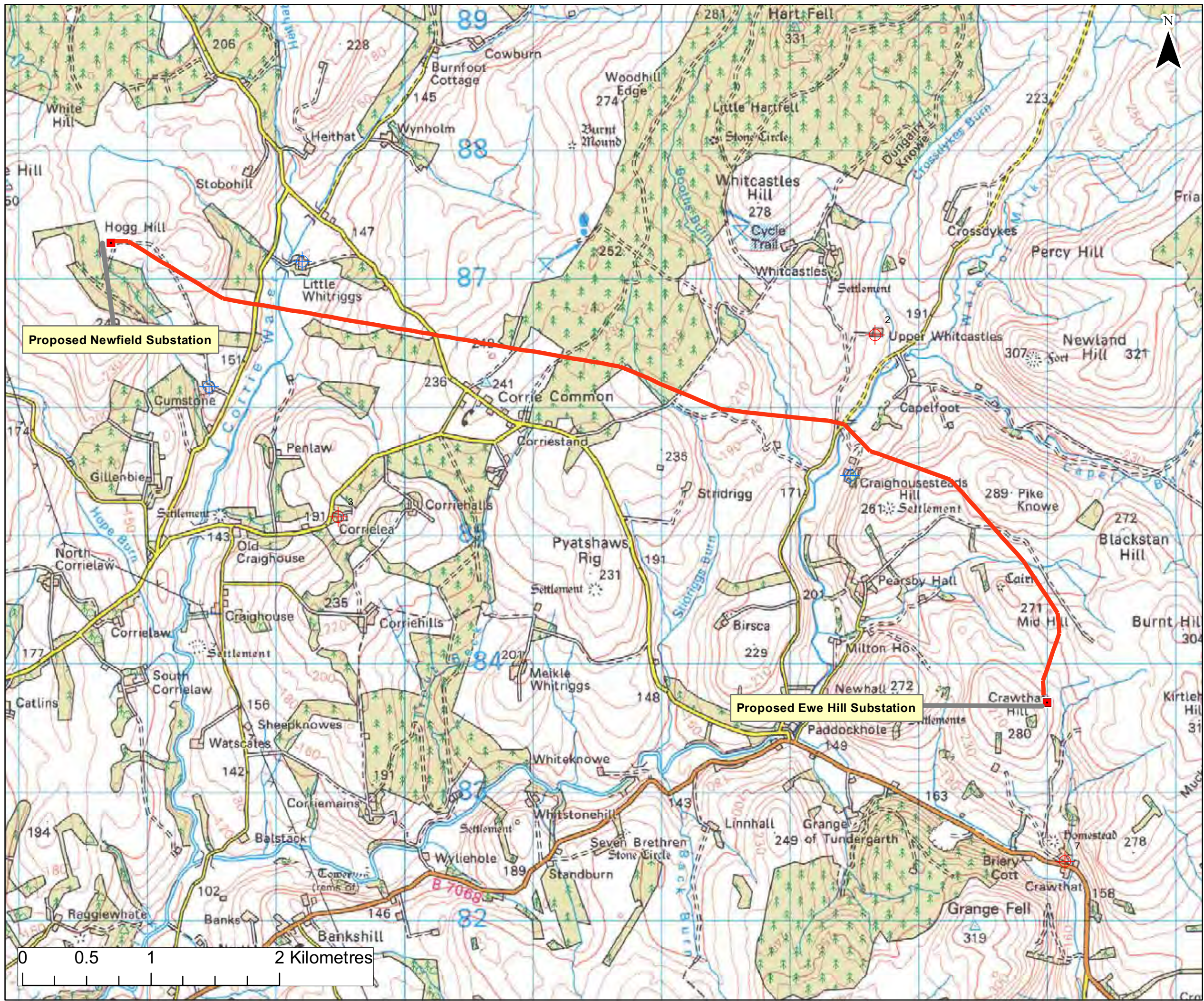
Size: A3  
 Scale: Not to Scale  
 Project: Greta Substation to Ewe Hill and Newfield Windfarms



Date: 06.07.10  
 Revision: -  
 Drawn by: AD  
 Checked by: AR

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**Legend**

- Substation
- Transmission Line Alignment
- ⊕ Dumfries & Galloway Council Private Water Supply Record
- ⊕ Scottish Agricultural College Private Water Supply Record



**Notes**

**Figure 10.5 Ewe Hill to Newfield Private Water Supply Records**

Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Greta Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

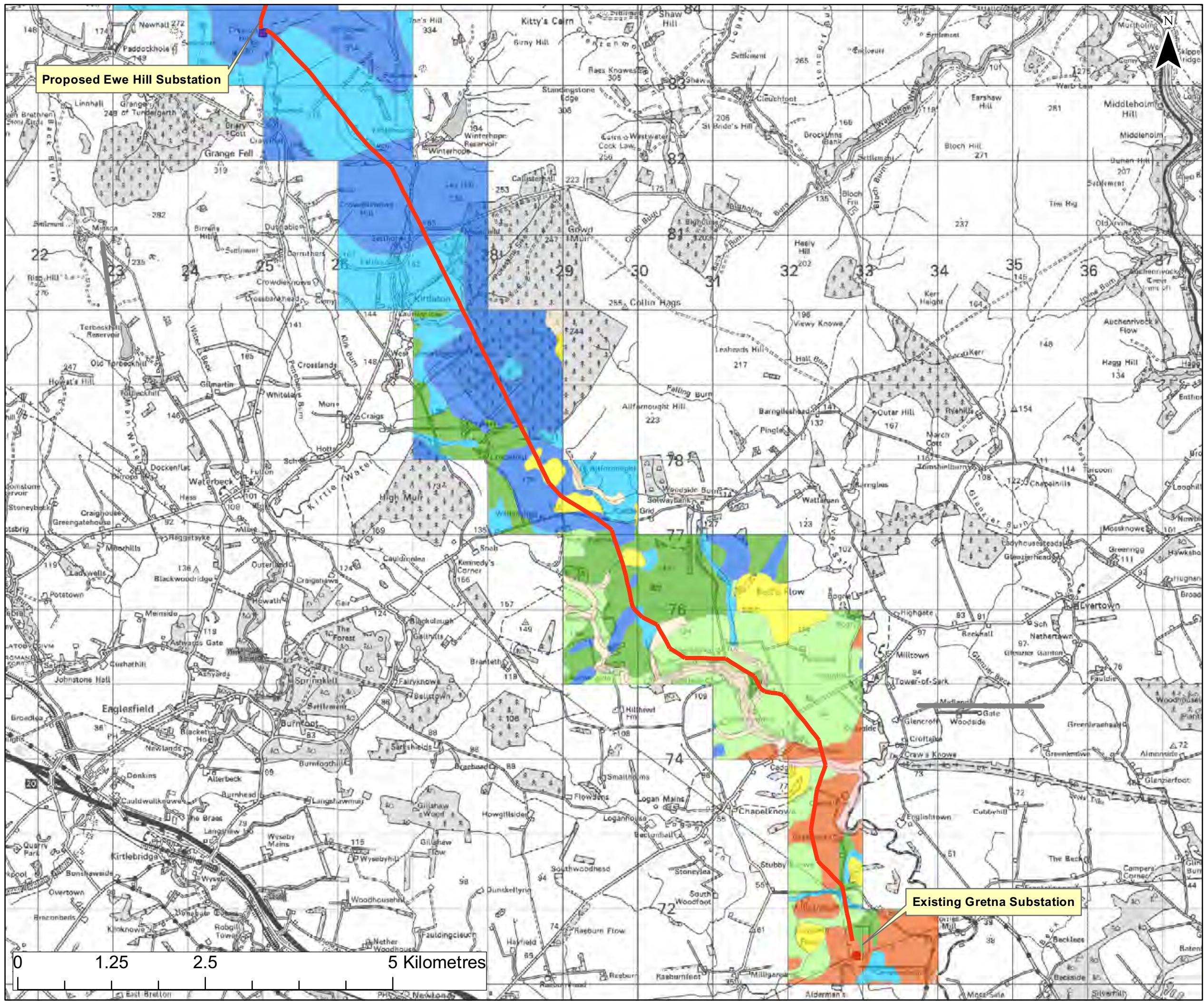


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Proposed Ewe Hill Substation

Existing Gretna Substation

**Legend**

Transmission Line Alignment

**Land Capability Code**

*Class 3 Land capable of producing a moderate range of crops*

3.0  
3.2

*Class 4 Land capable of producing a narrow range of crops*

4.1  
4.2

*Class 5 Land capable of use as improved grassland*

5.1  
5.2  
5.3

*Class 6 Land capable of use only as rough grazings*

6.2  
6.3



**Notes**

For full descriptions of the Land Capability Classes, refer to Appendix 11.2 of this report.

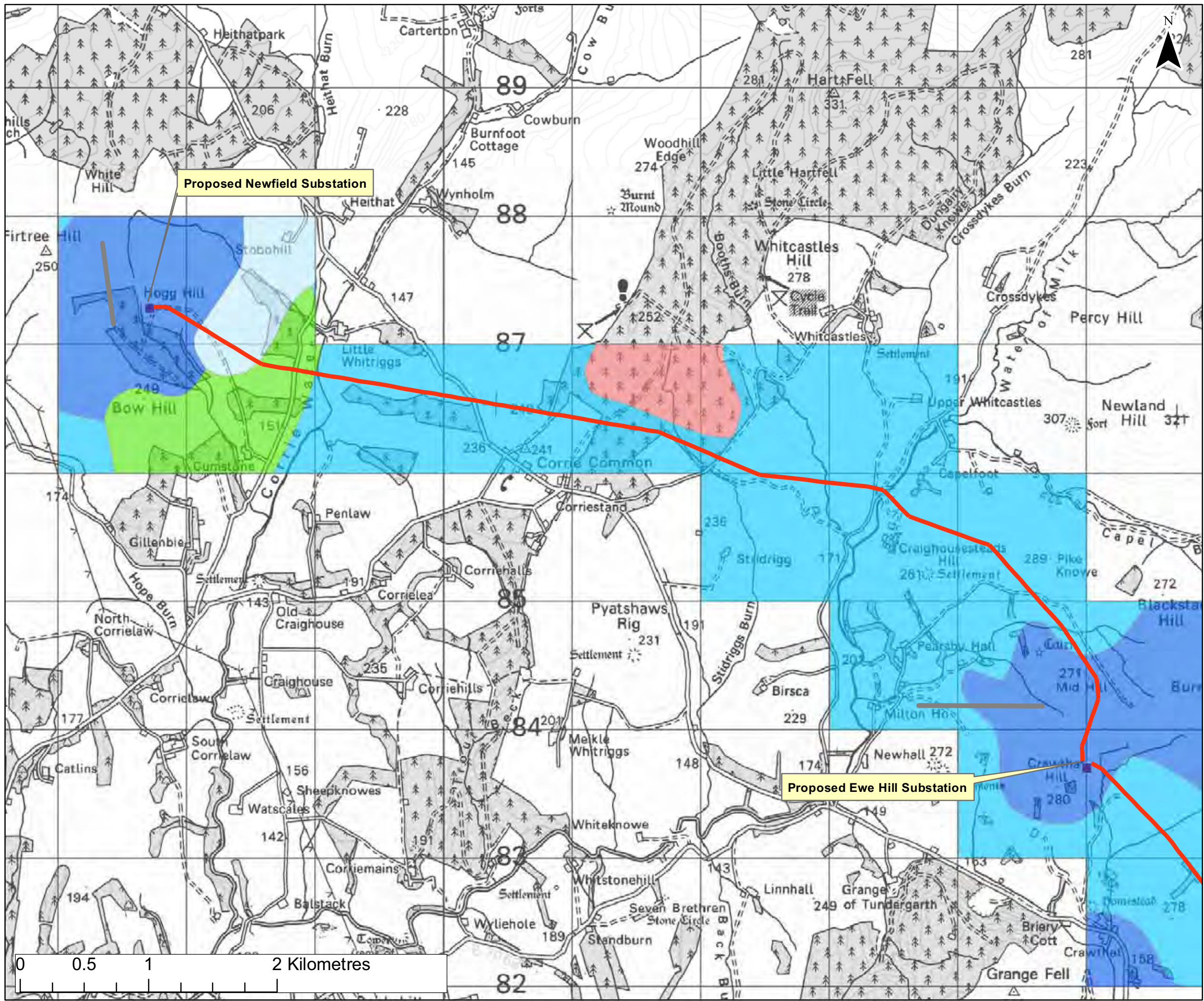
**Figure 11.1**  
Land Capability between Gretna and Ewe Hill

Size: A3  
Scale: Not to Scale  
Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line



Date: 13.07.10  
Revision: -  
Drawn by: AD  
Checked by: AR





**Legend**

Transmission Line Alignment

**Land Capability Code**

Class 3 Land capable of producing a moderate range of crops

3.0

3.2

Class 4 Land capable of producing a narrow range of crops

4.1

4.2

Class 5 Land capable of use as improved grassland

5.1

5.2

5.3

Class 6 Land capable of use only as rough grazings

6.2

6.3

**Notes**

For full descriptions of the Land Capability Classes, refer to Appendix 11.2 of this report.

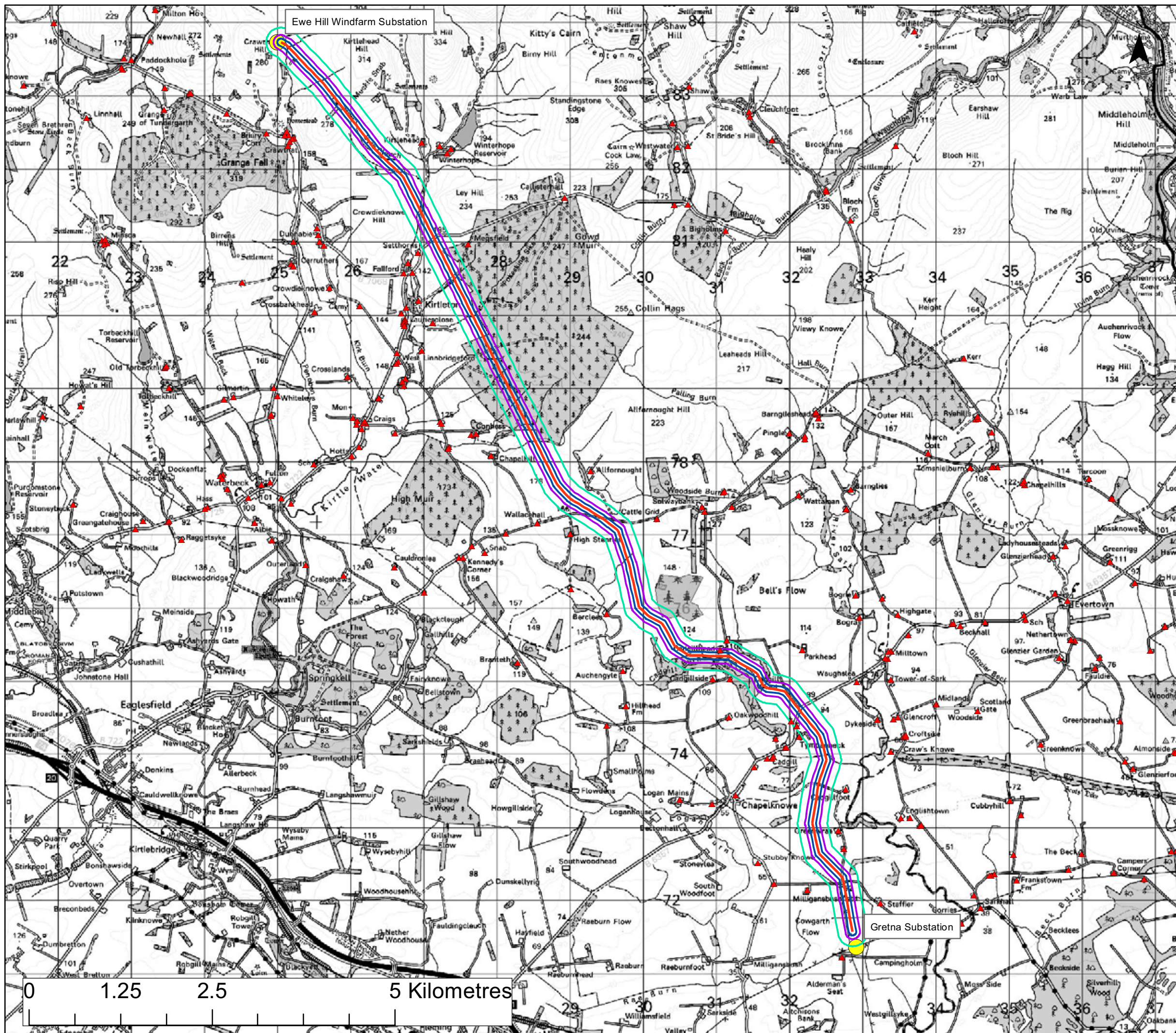
**Figure 11.2**  
 Land Capability between Ewe Hill and Newfield

Size: A3  
 Scale: Not to Scale  
 Project: 1211554 - Gretna Substation to Ewe Hill and Newfield Windfarms 132kV Transmission Line

|  |             |          |
|--|-------------|----------|
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|  | Checked by: | AR       |

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**Legend**

- Proposed OHL Alignment
- 50m Buffer
- 100m Buffer
- 200m Buffer
- + + Existing Transmission Lines
- Substation
- ▲ Residential Property



**Notes**

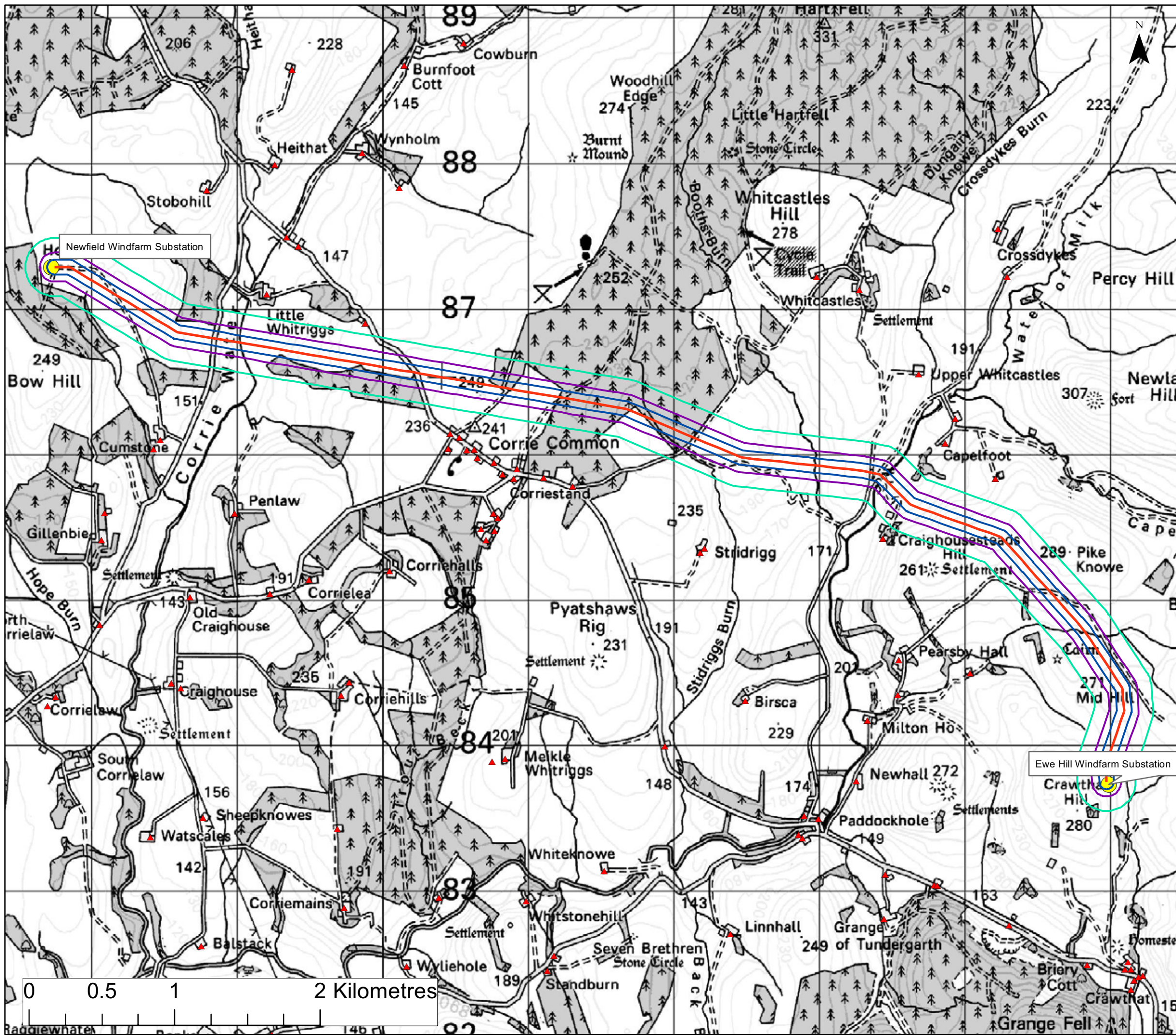
Figure 14.1 Gretna to Ewe Hill  
 50m, 100m and 200m Noise Buffers

Size: A3  
 Scale: Not to Scale  
 Project: Gretna Substation to Ewe Hill  
 and Newfield Windfarms

|  |             |          |
|--|-------------|----------|
|  | Date:       | 06.07.10 |
|  | Revision:   | -        |
|  | Drawn by:   | AD       |
|  | Checked by: | AR       |

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**Legend**

- Proposed OHL Alignment
- 50m Buffer
- 100m Buffer
- 200m Buffer
- +— Existing Transmission Lines
- Substation
- ▲ Residential Property



**Notes**

Figure 14.2 Ewe Hill to Newfield  
50m, 100m and 200m Noise Buffers

Size: A3  
 Scale: Not to Scale  
 Project: Greta Substation to Ewe Hill  
 and Newfield Windfarms



Date: 06.07.10  
 Revision: -  
 Drawn by: AD  
 Checked by: AR

0 0.5 1 2 Kilometres