



Appendix D.4:  
Technical Report National Vegetation  
Classification Survey – HVDC Route

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## TECHNICAL REPORT

# NORTH CONNECT ECOLOGICAL SURVEYS HVDC ROUTE

NATIONAL VEGETATION CLASSIFICATION  
SURVEY

REPORT REF: 17/048A/AFF/R01

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# **1 INTRODUCTION**

## **1.1 TERMS OF REFERENCE**

Tracks Ecology was commissioned by Affric Limited to undertake habitat surveys following the National Vegetation Classification (NVC) methodology at the site of the North Connect scheme; a joint venture project involving the construction of a high voltage direct current (HVDC) power interconnector between Norway and the United Kingdom. The 'Site' consists of the locations of the converter station at Fourfields and the HVDC consenting boundary extended to include a section of the Scottish Wildlife Trust Longhaven Cliffs Nature Reserve. The Site boundary is detailed in Figure 1.

The survey is required to support a planning application and Environmental Impact Assessment (EIA) of the onshore works and was identified as necessary following an initial extended Phase 1 survey and subsequent consultations following the scoping report.

## **1.2 OBJECTIVES OF STUDY**

This ecological survey and report aims to establish the baseline distribution of habitats of the Site by undertaking a National Vegetation Classification survey, identifying habitats to community level and producing a detailed annotated vegetation map using the Phase 1 classification to identify and map the habitats. This is supported by NVC data for communities present within each Phase 1 habitat polygon, habitat descriptions and target notes. An evaluation of the community conservation value as well as any potential dependence on groundwater (Scottish Environment Protection Agency 2014) was also undertaken. The presence of invasive non-native species was also to be evaluated.

## **1.3 SITE DESCRIPTION**

The Site is located approximately 2km south of Peterhead, Aberdeenshire with the HVDC cable route running from the Converter Station at Fourfields (NK 120414) to beneath the coastline south of Long Haven Bay.

The Site includes four arable fields to the north of Longhaven mains farm which is the location of the consented site for the converter building, and a corridor of agricultural land (arable and pasture), which runs south-eastwards to the coast, identified as a possible route for the grid connection cable. It is understood that the proposed grid connection cable will be drilled deep underground, resurfacing offshore from Longhaven Bay.

The Site includes a section of the SWT Longhaven Cliffs Nature Reserve which has been subject to separate surveys as part of the NorthConnect project (Tracks Ecology 2017). Also present within parts of the Site are the following sites which are designated for nature conservation (Figure 1).

### **Buchan Ness to Collieston Coast SPA**

The SPA qualifies under Article 4.2 of the Council Directive 79/409/EEC on the conservation of wild birds for supporting an internationally important assemblage of birds during the breeding season. Species include herring gull, fulmar, guillemot, kittiwake and Eurasian shag.

### **Buchan Ness to Collieston SAC**

The SAC supports the Annex 1 habitat Vegetated sea cliffs of the Atlantic and Baltic Coast. The sea cliffs support a wide range of semi-natural plant communities including maritime heath, acid peatland and brackish flushes which are now rare on the coast of north-east Scotland, and this section of coastline has some of the best remaining examples.

## **Bullers of Buchan Coast SSSI**

This SSSI comprises of sea cliffs and inshore stacks which are of special geological and biological interest. The breeding seabird colony is the largest in north-east Scotland. The sea cliffs also support a wide range of maritime plant communities with good examples of coastal dwarf-shrub heath and brackish flushes.

## **2 METHODOLOGY**

Semi-natural habitats across the site were mapped using the National Vegetation Classification (NVC) (Rodwell, 1991a; b, 1992, 1995, 2000), and the Phase I Habitat Classification (Joint Nature Conservation Committee 2010). Habitat polygons were delineated based on the composition of NVC communities and sub-communities. Where areas were considered to comprise mosaics or complexes of different habitat communities, the proportion of each was estimated in percentage terms. Where communities do not constitute a community as described in the NVC, dominant species codes have been attributed as per Phase I Habitat Classification, to indicate the makeup of the vegetation community.

Polygons were latterly assigned a Phase I Habitat Classification, according to the relationships described in Phase I Habitat Classification. For the purposes of creating a visual representation of habitat types, the dominant Phase I Habitat Classification for each polygon is reflected.

Also, identifying the habitat community allows the habitat to be given a score appropriate to its potential dependency on groundwater as listed in the Scottish Environment Protection Agency (SEPA) document Land Use Planning System (LUPS) Guidance Note 31 (Scottish Environment Protection Agency 2014).

More widely, target notes were also collected to provide an overview of the habitat types present, features of interest and to place the proposed development in the context of the Site.

Nomenclature for vascular plants follows Stace (2010), bryophytes and liverworts follow Atherton *et al* (2010) and for lichens Dobson (2011). Additional reference material in relation to species identification and habitat composition was also used (Averis *et al.* 2004; Cheffings *et al.* 2005; Hodgetts 2011; Prescott 2016). Phase 1 habitat maps were digitised using both Quantum GIS 2.16.1-Nødebo and ArcView 10.1 GIS package.

Fieldwork was carried out on the 19<sup>th</sup>-20<sup>th</sup> September 2017 by Adam Fraser (MCIEEM) an experienced habitat surveyor, familiar with the habitats of the Site.

### **2.1 LIMITATIONS**

The surveys were undertaken within the latter part of the field survey season and as such it is possible that a number of early flowering species could be overlooked. However, taking into account the experience and skill of the surveyor this is not considered a limitation.

Much of the Site is located along the high steep cliffs. All survey work adjacent to the cliff edges was taken with due care and attention to health and safety with no lone working. Small areas were not safely accessible, but these could be viewed using binoculars from suitable vantage points and combined with the use of detailed aerial imaging this did not result in any significant limitation.

### 3 RESULTS

Habitat types and NVC communities identified within the survey area have been mapped and are presented in Figures 2a-g: NVC Survey results. Table 1 lists the NVC communities identified within the Site, with the relevant NVC code also provided. Table 2 lists a summary of areas based on Phase I habitat communities.

Table 1: NVC Communities present within the Site.

Code	Community/sub-community name
<b>Woodlands and scrub</b>	
W23a	<i>Ulex europaeus-Rubus fruticosus</i> scrub, <i>Anthoxanthum odoratum</i> sub-community
<b>Mires and heaths</b>	
H7c	<i>Calluna vulgaris-Scilla verna</i> heath, <i>Erica tetralix</i> sub-community
H7d	<i>Calluna vulgaris-Scilla verna</i> heath, <i>Empetrum nigrum</i> ssp. <i>nigrum</i> sub-community
M27a	<i>Filipendula ulmaria-Angelica sylvestris</i> mire, <i>Valeriana officinalis-Rumex acetosa</i> sub-community
M27c	<i>Filipendula ulmaria-Angelica sylvestris</i> mire, <i>Holcus lanatus-Juncus effusus</i> sub-community
M35x	<i>Ranunculus omiophyllus-Montia fontana</i> rill, variant community
<b>Grassland and montane communities</b>	
MG1a	<i>Arrhenatherum elatius</i> grassland, <i>Festuca rubra</i> sub-community
MG1b	<i>Arrhenatherum elatius</i> grassland, <i>Urtica dioica</i> sub-community
MG5a	<i>Cynosurus cristatus-Centaurea nigra</i> grassland, <i>Lathyrus pratensis</i> sub-community
MG6a	<i>Lolium perenne-Cynosurus cristatus</i> grassland, typical sub-community
MG7	<i>Lolium perenne</i> leys and related grasslands
MG10a	<i>Holcus lanatus-Juncus effusus</i> rush-pasture, typical sub-community
MG11	<i>Festuca rubra-Agrostis stolonifera-Potentilla anserina</i> grassland
U5d	<i>Nardus stricta-Galium saxatile</i> grassland, <i>Calluna vulgaris-Danthonia decumbens</i> sub-community
U17x	<i>Luzula sylvatica-Geum rivale</i> tall-herb community, variant sub-community
<b>Maritime communities</b>	
MC8a	<i>Festuca rubra-Armeria maritima</i> maritime grassland, typical sub-community
MC8c	<i>Festuca rubra-Armeria maritima</i> maritime grassland, <i>Ligusticum scoticum</i> sub-community
MC8d	<i>Festuca rubra-Armeria maritima</i> maritime grassland, <i>Holcus lanatus</i> sub-community
MC9e	<i>Festuca rubra-Holcus lanatus</i> maritime grassland, <i>Anthoxanthum odoratum</i> sub-community
<b>Vegetation of open habitats</b>	
OV25	<i>Urtica dioica-Cirsium arvense</i> community
OV25b	<i>Urtica dioica-Cirsium arvense</i> community, <i>Rumex obtusifolius-Artemisia vulgaris</i> sub-community

Table 2: Phase I habitat community areas.

Habitat	Area (ha)	Area % of Total
Arable	26.63	36.49
Neutral grassland - semi-improved	15.92	21.81
Marsh/marshy grassland	9.27	12.69
Coastal grassland	5.34	7.32
Maritime cliff	4.49	6.16
Neutral grassland - unimproved	3.97	5.44

Coastal heathland	2.21	3.03
Scrub - continuous	1.40	1.92
Other tall herb and fern - non-ruderal	1.35	1.85
Crevice/ledge vegetation	0.93	1.28
Bare ground	0.51	0.70
Access track	0.33	0.46
Acid grassland - unimproved	0.22	0.30
Shingle/gravel above high-tide mark	0.15	0.20
Other tall herb and fern - tall ruderal	0.10	0.14
Open water	0.09	0.12
Bracken - continuous	0.04	0.06
Quarry	0.03	0.04
Scree	0.02	0.02
Buildings and gardens	<0.01	<0.01
<b>Grand Total</b>	<b>72.98</b>	<b>100.00</b>

### 3.1 COMMUNITY DESCRIPTIONS

#### 3.1.1 WOODLANDS AND SCRUB

##### **W23a *Ulex europaeus*-*Rubus fruticosus* scrub, *Anthoxanthum odoratum* sub-community**

Scrub communities dominated by European gorse, *Ulex europaeus* are scattered throughout coastal areas along field margins. The majority of these scrub areas are homogenous stands of gorse, with a scattering of bramble *Rubus fruticosus* and grasses sweet-vernal grass *Anthoxanthum odoratum*, crested dog's-tail *Cynosurus cristatus*, Yorkshire fog *Holcus lanatus* and red fescue *Festuca rubra* at the fringes. Often stands of gorse are occupied by common rabbit *Orctyolagus cuniculus* with numerous burrows. As a result, grasses are often heavily grazed in the vicinity.

#### 3.1.2 MIRES AND HEATHS

##### **H7 *Calluna vulgaris*-*Scilla verna* heath**

This is the dominant heath community throughout the site, and two sub-communities are represented. The vegetation is typically short, being wind-clipped, and form rather open stands often transitional to other communities – particularly grasslands. In most cases throughout the survey area bell heather *Erica cinerea* and heather *Calluna vulgaris* were constant with crowberry *Empetrum nigrum* often co-dominant or abundant. Sheep's fescue *Festuca ovina*, heath grass *Danthonia decumbens*, sweet vernal grass and Yorkshire fog are commonly present. Herb species typically include ribwort plantain *Plantago lanceolata*, tormentil *Potentilla erecta*, cat's-ear *Hypochaeris radicata* with less frequent coverage of thrift, *Armeria maritima* and sea plantain *Plantago maritima*.

The H7c *Erica tetralix* sub-community is found in wetter areas of heathland across the site, typically slightly inland on deeper soils and has higher coverage of the cross-leaved heath *Erica tetralix*, common bent *Agrostis capillaris* and mat-grass *Nardus stricta*.

The H7d *Empetrum nigrum* ssp. *nigrum* sub-community is the most common across the site, found on cliff tops and edges, often in exposed conditions or on dry soils. In this sub-community crowberry can be dominant or co-dominant and typical grasses frequent.



**M27 *Filipendula ulmaria*-*Angelica sylvestris* mire, *Valeriana officinalis*-*Rumex acetosa* sub-community**

The dominant mire community present within the survey area and is dominated by meadowsweet *Filipendula ulmaria* forming the M27a *Filipendula ulmaria*-*Angelica sylvestris* mire, *Valeriana officinalis*-*Rumex acetosa* sub-community. This community is most frequent where natural drainage flows over cliffs from vegetation communities above. Typically this vegetation is quite rich across the site, and whilst meadowsweet and wild angelica, *Angelica sylvestris* are abundant, soft rush *Juncus effusus*, marsh thistle *Cirsium palustre*, hawk's beard *Crepis paludosa*, marsh woundwort *Stachys palustris*, common nettle *Urtica dioica*, and curled dock *Rumex crispus* form a dense canopy of herbs. Marsh marigold *Caltha palustris*, marsh pennywort *Hydrocotyle vulgaris*, lesser spearwort *Ranunculus flammula*, water mint *Mentha aquatica* and cuckooflower *Cardamine pratensis* are all present within this community at varying levels of coverage. A second sub-community is present in Longhaven Bay and is grassier with higher cover of soft rush. This reflects the M27c *Holcus lanatus*-*Juncus effusus* sub-community.

3.1.3 OTHER HEATH AND MIRE COMMUNITIES

A small area of M6a *Carex echinata*-*Sphagnum fallax/denticulatum* mire is present within a wider mosaic of marshy grassland. This is not considered to be a discrete community and is in mosaic with rush-pasture vegetation, noticeable only by an increased coverage of star sedge *Carex echinata* and some *Sphagna*. A small area of mire vegetation was recorded at a gated entrance to a field north of the A90 public road. Here ivy-leaved crowfoot *Ranunculus hederaceus* was present, in mosaic with bulbous rush *Juncus bulbosus*, blinks *Montia fontana* and lesser spearwort. This community is not reflected in the NVC, and the principal constant species for M35 communities (round leaved crowfoot *Ranunculus omiophyllus*) is not present here, however the community has been coded M35x to reflect the presence of crowfoot species and a similar assemblage of co-dominants.

3.1.4 GRASSLAND AND MONTANE COMMUNITIES

**MG1 *Arrhenatherum elatius* grassland**

This grassland community is generally present in mosaic with other grassland and tall-ruderal communities and is present throughout the survey area, typically at field edges, roadside verges and in some open areas co-dominant or transitional with other communities. False oat-grass *Arrhenatherum elatius* and cock's foot *Dactylis glomerata* are the dominant graminoids and the community is present as both grassy form, with other grass species-co-dominant, and a weedy form, with common nettle and hogweed *Heracleum sphondylium* frequent in the sward. These communities tend to be ungrazed but occasionally MG1 grasslands are transitional to semi-improved MG6 *Lolium perenne*-*Cynosurus cristatus* grassland at the fringes of some arable fields.

**MG5a *Cynosurus cristatus*-*Centaurea nigra* grassland *Lathyrus pratensis* sub-community**

This community is frequent in the zone between agricultural field systems and coastal grassland or heathland communities. It frequently forms transitional or co-dominant communities with other grasslands. However, commonly the community is reflected by high abundance of red fescue, crested dog's-tail, common bent, sweet-vernal grass and cock's foot. Ribwort plantain is generally frequent along with red clover *Trifolium pratense*, knapweed *Centaurea nigra*, meadow buttercup *Ranunculus acris* and yarrow *Achillea millefolium*. In the sub-community reflected across the site, patchy coverage of meadow vetchling *Lathyrus pratensis* and bird's-foot trefoil *Lotus corniculatus* is common. Meadowsweet is also present at low coverage and often the grassland community transitions to M27 mire communities where there is a higher water table.

**MG6 *Lolium perenne-Cynosurus cristatus* grassland and MG7 *Lolio-Plantaginion* leys and grasslands**

These two communities are present as the result of agricultural improvement of grassland communities, reflected by the higher coverage of crested dog's-tail and perennial rye-grass *Lolium perenne* as a result of re-seeding. In the 'Fourfields' area these ryegrass dominated leys comprise silage crop. Elsewhere cut silage crops were recorded, and likely reflect one of these two grassland communities. In the two large fields to the east of Longhaven mains, semi-improved grasslands with abundant crested dog's tail, creeping buttercup *Ranunculus repens* and Yorkshire fog. Occasionally stands of creeping thistle *Cirsium arvense* are present as weeds within this community, and it forms mosaics with rush-pasture vegetation on wetter substrates.

**MG10 *Holcus lanatus-Juncus effusus* rush-pasture**

MG10 rush-pastures are frequent in damper ungrazed fields and around areas of open water. Here soft rush is co-dominant with Yorkshire-fog, with varying abundance of meadow buttercup, common sorrel *Rumex acetosa*, creeping buttercup, white clover *Trifolium repens*, ribwort plantain and field thistle *Cirsium arvense*.

**U17x *Luzula sylvatica-Geum rivale* tall-herb community, variant sub-community**

On cliffs along the coast, particularly to the north of the survey area and Longhaven Cliffs Nature Reserve, stands of greater woodrush *Luzula sylvatica* are frequent, often punctuated by abundant lady fern *Athyrium filix-femina*, male fern *Dryopteris filix-mas* and scaly male-fern *Dryopteris affinis* agg. Wild angelica is occasional through the sward and primrose *Primula vulgaris* and roseroot *Sedum rosea* are notable, but scarce, within a scattered sward on steeper slopes.

3.1.5 OTHER GRASSLAND COMMUNITIES

Other grassland communities are infrequent within the survey area but small areas dominated by certain species mat-grass (U5 *Nardus stricta-Galium saxatile* grassland, *Calluna vulgaris-Danthonia decumbens* sub-community), and silverweed (MG11 *Festuca rubra-Agrostis stolonifera-Potentilla anserina* grassland), reflect transitions to other grassland communities which are not fully reflected as discrete communities.

3.1.6 MARITIME COMMUNITIES

**MC8 *Festuca rubra-Armeria maritima* maritime grassland**

This grassland community is present along the very edge of cliffs, forming a low, closed sward with a thick mat of red fescue, thrift, sea plantain, and creeping bent *Agrostis stolonifera*. Generally, these grasslands are species poor and reflect the typical sub-community. On steeper cliffs and ledges increased cover of thrift along with Scot's lovage *Ligusticum scoticum* and Yorkshire fog reflects a transition to the M8c *Ligusticum scoticum* sub-community. In NVC mapping areas with higher coverage of bare rock and the MC8c sub-community have been mapped as crevice/ledge vegetation to reflect the increased fragmentation of the community on steeper cliffs and ledges. A third sub-community is present in small amounts in Longhaven Bay, with higher coverage of Yorkshire fog in the sward and reflects the M8d *Holcus lanatus* sub-community.

**MC9 *Festuca rubra-Holcus lanatus* maritime grassland**

This coastal grassland community is frequent in the zone between the neutral grasslands and coastal heaths that typically occupy higher cliff tops and ledges and the species-poor MC8 maritime grasslands. All MC9 maritime grasslands present within the survey area have

been classified as being of the *Anthoxanthum odoratum* sub-community but the sub-community itself is very variable. Thrift is present at low coverage, if at all and grasses tend to dominate with common sorrel, tormentil, bird's-foot trefoil, meadow buttercup frequent in the sward at varying coverage. Occasionally there is cover of crowberry and the community often forms mosaics with coastal heathland H7 communities. Additionally, the community is found within field boundaries and is often transitional to either semi-improved grasslands or to poorly drained rush-pastures.

### 3.1.7 VEGETATION OF OPEN HABITATS

#### **OV25 *Urtica dioica*-*Cirsium arvense* community**

This is the most common community within the survey area, present at woodland and field boundaries, along drainage channels, verges and occasionally as larger stands in open areas. The community is dominated by the two constants – common nettle and field thistle – and the most frequent *Rumex obtusifolius*-*Artemisia vulgaris* sub-community throughout the survey area has higher cover of cock's foot, broad-leaved dock *Rumex obtusifolius* and hogweed. This second sub-community frequently transitions to MG1 neutral grassland communities where common nettle and field thistle become less dominant than constituent grasses.

#### **OV27 *Chamerion angustifolium* community**

Open habitat communities dominated by rosebay willowherb *Chamerion angustifolium* are frequent throughout the survey area and are typically dominated by the community constant in mosaic with common nettle, field thistle, cock's foot, Yorkshire-fog and tufted hair-grass.

### 3.1.8 OTHER COMMUNITIES

A number of communities recorded do not fit with those described in NVC. Typically these communities are fragmented woodlands where only one or two tree species may be present, or where trees have been planted and species composition does not reflect semi-natural vegetation. In all cases the dominant vegetation type or species code has been annotated within NVC data (Appendix A). Arable fields which have been cut for silage are not recorded to NVC level.

## 4 CONSERVATION EVALUATION

Conservation interest within the site is defined as:

- A habitat or species listed on the EU Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (92/32/EEC), the EU Habitats Directive;
- A habitat forming a qualifying feature of a site designated for habitat and/or fauna and flora interests under the EU Habitats Directive;
- A habitat and/or species forming a qualifying feature of national or local designations (eg. Sites of Special Scientific Interest);
- A habitat and/or species listed on the UK Biodiversity Action Plan and Scottish Biodiversity List; and
- A species listed on its relevant UK red data list as being vulnerable to or under threat.

The following vegetation communities recorded within the site are identified as of conservation interest:

- MC8 *Festuca rubra*-*Armeria maritima* maritime grassland TN13 Figure 2c and Figure 4
- MC9 *Festuca rubra*-*Holcus lanatus* maritime grassland Figure 4

- H7 *Calluna vulgaris-Scilla verna* heath Figure 4

All three communities are listed under Annex 1 habitat type H1230: Vegetated sea cliffs of the Atlantic and Baltic coasts. All three communities also form component parts of maritime cliff and slope vegetation, listed under UK BAP and Scottish Biodiversity List priority habitats.

No individual flowering or lower plant species of conservation concern were recorded i.e., rare, threatened, or nationally scarce conservation status.

#### 4.1 NON-NATIVE AND INVASIVE SPECIES

Only a single non-native species were recorded within the Site:

- Monbretia, *Crocsmia x crocosmiiflora* TN18 Figure 2c and Figure 5

No species were recorded that are listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) (where relevant to Scotland), which makes it an offence to release or spread any plant or animal that is identified as a potential threat to native biodiversity. Species listed on Schedule 9 may not be released or introduced without a license, allowed to escape into the wild, or caused to be spread in the wild. No species were recorded within the survey area identified as invasive 'alien' species on the Water Framework Directive alien species list or on the Scottish Natural Heritage Species Action Framework as being target species for management to limit their spread. As a result, based on the survey findings no specific action in relation non-native species is likely to be required, although the spread of non-natives, not identified on Schedule 9 of the Wildlife and Countryside Act should also be avoided.

#### 4.2 GROUNDWATER DEPENDENT TERRESTRIAL ECOSYSTEMS

Habitat classifications in line with current guidance (Scottish Environment Protection Agency 2014) are detailed in Figures 3a-f. Only a single habitat which is recognized as being potentially highly dependent on groundwater (Scottish Environment Protection Agency 2014) is U17 *Luzula sylvatica-Geum rivale* tall-herb community. This community is located along the cliffs and is not located further inland (Figure 3c). The community tends to develop where there is protection from grazing and burning with more base-rich and mesotrophic soils and a degree of dampness which results in the community being identified as potentially dependent on groundwater. These communities are likely to have some influence from base-rich water present where soils become thin on the cliff tops but significant influence from groundwater at these locations is assessed as unlikely.

Two patches of MG10 *Holcus lanatus-Juncus effusus* rush-pasture marshy grassland are also present within the Site. The small area located near TN9 also supports an M35x *Ranunculus omiophyllus-Montia fontana* variant community and signifies a small localised upwelling of groundwater. A larger area of MG10a is unlikely to be significantly dependent on groundwater although some influence may be present.

#### 4.3 ASSESSMENT OF IMPACTS

It is considered that the proposed development will not directly impact on sensitive habitats or habitats dependent on the integrity of hydrological systems, with above ground infrastructure being installed in arable fields north of Longhaven mains and cabling works being routed from north of the A90 public road by directional drilling deep underground. As a result, habitats of conservation interest as defined above will be avoided. However potential impacts on habitats from the proposed development include the following:

- Permanent direct habitat loss and fragmentation of habitat as a result of installation of permanent above ground infrastructure;
- Temporary direct habitat loss and fragmentation of habitat as a result of installation of temporary access and use of laydown/working areas;
- Construction-related effects: pollution from materials used or generated from the construction phase have potential to enter hydrological features (inclusive of artificial drainage);
- Alteration to site hydrology through installation of permanent structures and temporary infrastructure; and
- Potential for impacts on groundwater due to horizontally directional drilling.

Proposed mitigation should include the following:

- Vehicular access to be restricted, avoiding streams, mires, flushes and soaks where possible;
- Where possible, temporary access shall be 'floated' over sensitive habitats (streams, mires, flushes and soaks) to minimise disruption to hydrology, soil structure and vegetative material;
- Access and working areas adjacent to watercourses should be set back from banks by a minimum distance of 10 m where possible with additional measures put in place if works are required closer (Scottish Environment Protection Agency 2007, 2012);
- Appropriate protective measures (fencing and signage) should be installed to ensure the banks and inundation zone of watercourses are kept free from litter, dust and debris;
- Excavated materials should be stored according to best practice taking care to separate, as far as is reasonable, turves, topsoils, soil and peat layers and boulders. Reinstatement would ensure that turves are replaced on the surface, to recreate the former habitat as far as is possible;
- The extent of all excavations should be kept to a minimum and during construction activities, surface water flows should be captured through a series of cut off drains to prevent water entering excavations or eroding exposed surfaces. If dewatering of excavations is required, pumped discharges should be passed through silt/sediment control measures and directed towards least sensitive habitats; and
- Pipes/culverts should be specified where required to manage and control all watercourses across the site, employed according to SEPA guidelines, with care taken to minimise disturbance to bed and banks of watercourses.
- Although impacts on the GWDTEs is assessed to be unlikely due to the distance of highly or moderately/highly dependent ecosystems from the proposed surface works, it is recommended that appropriate hydrological assessments are undertaken with respect to impacts on groundwater if it is thought the horizontally directional drilling could affect it.

The potential impacts from the installation of the converter station and cable are considered permanent in nature but highly restricted in extent when the full areas of habitat impacted upon are taken into account. Associated access requirements are likely temporary in nature and impacts would be restricted to habitats of low sensitivity, with no works to be undertaken east of the A90 public road. There is scope to reinstate small areas of any adversely affected ground, which is likely to be restricted to agricultural fields. Based on the information supplied at this stage, the effect on habitats of value is therefore assessed as being of negligible magnitude.

## 5 REFERENCES

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## APPENDIX A: NVC POLYGON DATA

ID	NVC Community and %	Phase 1 Community	GWDTE	Comment
1	MG6a 65: MG10a 35	Neutral grassland - semi-improved	Low-moderate	Grazed neutral grassland
2	W23a 100	Scrub - continuous	Low	Ue
3	J1.1	Arable	Low	Silage crop
4	MG10a 90: MG6a 10	Marsh/marshy grassland	Moderate	Je dominant
5	MG1a 40: MG1b 30: OV25 30	Neutral grassland - unimproved	Low	Grassland with stands of Car
6	MG10a 70: MG6a 25: OV25	Neutral grassland - semi-improved	Low-moderate	Grazed neutral grassland, stands of Ca
7	MG6a 80: MG10a 20	Neutral grassland - semi-improved	Low-moderate	Ungrazed neutral grassland
8	W23a 65: MG1b 20: MG1a 15	Scrub - continuous	Low	Field boundary with Ue scrub
9	MG6a 65: MG10a 35	Neutral grassland - semi-improved	Low-moderate	Grazed neutral grassland
10	MG10a 90: MG6a 10	Marsh/marshy grassland	Moderate	Je dominant
11	MG10a 85: MG6a 15	Marsh/marshy grassland	Moderate	Je dominant
12	OV25b 100	Other tall herb and fern - tall ruderal	Low	Ud dominant
13	J1.1 100	Arable	Low	Cut silage crop
14	MG10a 65: MG1a 35	Marsh/marshy grassland	Moderate	Old railway track and drainage ditch
15	MG10a 75: MG6a 25	Neutral grassland - semi-improved	Low-moderate	Grazed neutral grassland
16	MG1a 100	Neutral grassland - unimproved	Low	
17	MG10a 90: MG6a 10	Marsh/marshy grassland	Moderate	Je dominant
18	MG10a 65: MG6a 25: OV25 10	Neutral grassland - semi-improved	Low-moderate	Grazed neutral grassland, stands of Ca
19	W23a 100	Scrub - continuous	Low	Ue
20	J1.1	Arable	Low	Silage crop
21	J1.1 100	Arable	Low	Cut silage crop
22	MG1a 100	Neutral grassland - unimproved	Low	Roadside verge
23	J4 100	Bare ground	Low	Public road
24	J1.1 100	Arable	Low	Silage crop
25	J4 80: MG6a 20	Bare ground	Low	Access track
26	W23a 95: MG10a 5	Scrub - continuous	Low	Ue
27	W23a 80: MG10a 20	Scrub - continuous	Low	Ue
28	J1.1 100	Arable	Low	Cut silage crop
29	MG10a 100	Marsh/marshy grassland	Moderate	Je dominant
30	MG1b 85: MG10a 10: MG1a 5	Neutral grassland - unimproved	Low	
31	MG1a 100	Neutral grassland - unimproved	Low	Roadside verge
32	MG10a 100	Marsh/marshy grassland	Moderate	
33	MG6a 80: MG10a 20	Neutral grassland - semi-improved	Low-moderate	Ungrazed neutral grassland

34	W23a 100	Scrub - continuous	Low	Ue
35	W23a 100	Scrub - continuous	Low	Ue
36	MG1a 100	Neutral grassland - unimproved	Low	
37	W23a 100	Scrub - continuous	Low	Ue
38	OV25b 70: J3.6 30	Other tall herb and fern - tall ruderal	Low	Ruin covered in Ud dominated vegetation
39	W23a 100	Scrub - continuous	Low	Ue
40	MG5a 80: M27a 20	Neutral grassland - unimproved	Low-moderate	
41	W23a 100	Scrub - continuous	Low	
42	MG1a 75: MG10a 20: Lpc 5	Neutral grassland - unimproved	Low	Scattered Lpc at field boundary
43	MC8a 75: MG5a 15: M27b 10	Neutral grassland - unimproved	Low	
44	W23a 100	Scrub - continuous	Low	Ue
45	W23a 100	Scrub - continuous	Low	Ue
46	W23a 100	Scrub - continuous	Low	
47	J4 100	Bare ground	Low	Access track
48	MG5a 90: MC8a 10	Neutral grassland - unimproved	Low	
49	W23a 100	Scrub - continuous	Low	Ue
50	MG10a 75: MG6a 25	Neutral grassland - semi-improved	Low-moderate	Grazed neutral grassland
51	W23a 100	Scrub - continuous	Low	Ue
52	MG10a 100	Neutral grassland - semi-improved	Moderate	Grazed by rabbits
53	MG10a 80: M35x 20	Marsh/marshy grassland	Moderate-high	<i>Ranunculus hederaceus</i> spring
54	MG10a 65: M23b 35	Marsh/marshy grassland	Moderate-high	
55	U17x 100	Other tall herb and fern - non-ruderal	High	Dominated by Ls
56	MG1a 60: MG5a 30: OV25a 10	Neutral grassland - unimproved	Low	Old railway track
57	W23a 100	Scrub - continuous	Low	
58	MC8a 100	Coastal grassland	Low	
59	W23a 100	Scrub - continuous	Low	Ue
60	MC8a 90: MG5a 10	Coastal grassland	Low	
61	W23a 100	Scrub - continuous	Low	Ue
62	MG5a 70: MG11 30	Neutral grassland - unimproved	Low	High cover Pans
63	MG5a 100	Neutral grassland - unimproved	Low	
64	J4 100	Access track	Low	
65	W23a 100	Scrub - continuous	Low	Ue
66	U17x 70: M27a 15: MG5a 8: MC8a 7	Other tall herb and fern - non-ruderal	High	Dominated by Ls/Aff
67	MG5a 100	Neutral grassland - unimproved	Low	
68	MG1c 65: MG1b 35	Neutral grassland - unimproved	Low	



69	U17x 60: MC8a 20: MG5a 18: M27b 2	Other tall herb and fern - non-ruderal	High	Dominated by Ls
70	W23a 100	Scrub - continuous	Low	Ue
71	W23a 100	Scrub - continuous	Low	Ue
72	W23a 100	Scrub - continuous	Low	
73	U17x 100	Other tall herb and fern - non-ruderal	High	Dominated by Ls
74	M27a 65: M27c 35	Marsh/marshy grassland	Moderate	
75	MC8a 100	Coastal grassland	Low	
76	MG1a 100	Neutral grassland - unimproved	Low	
77	MG5a 90: M9e 10	Neutral grassland - unimproved	Low	
78	MC8a 85: Dr 15	Coastal grassland	Low	Stand of <i>Dryopteris affinis</i>
79	MG1c 65: MG1a 20: M27b 15	Neutral grassland - unimproved	Low-moderate	
80	W23a 100	Scrub - continuous	Low	Ue
81	M27a 65: U17x 20: Bare rock 15	Marsh/marshy grassland	Moderate	
82	H7c 77: U5d 15: MG5a 5: U16c 3	Coastal heathland	Low	
83	W23a 100	Scrub - continuous	Low	
84	Bare rock 50: W23a 30: MC8a 10: U17x 10	Quarry	Low	Wall of quarry
85	MC8a 78: Bare rock 22	Coastal grassland	Low	
86	J1.1 100	Arable	Low	Cut silage crop
87	M27a 100	Marsh/marshy grassland	Moderate	
88	MG5a 65: MC9e 35	Neutral grassland - unimproved	Low	
89	W23a 100	Scrub - continuous	Low	
90	MC8a 92: U17x 8	Coastal grassland	Low	
91	U17x 100	Other tall herb and fern - non-ruderal	High	Dominated by Ls
92	M27a 100	Marsh/marshy grassland	Moderate	Dominated by <i>Caltha palustris</i> , <i>Hydrocotyle vulgaris</i>
93	W23a 100	Scrub - continuous	Low	Ue
94	W23a 100	Scrub - continuous	Low	
95	G1	Open water	n/a	
96	J1.1 100	Arable	Low	Silage crop
97	M27a 100	Marsh/marshy grassland	Moderate	
98	M27a 100	Marsh/marshy grassland	Moderate	Dominated by <i>Crepis paludosa</i> , <i>Stachys palustris</i>
99	J1.1 100	Arable	Low	Silage crop
100	MG10a-A16	Marsh/marshy grassland	Moderate	Wet ditch with slow moving water - <i>Montia fontana</i> , <i>Callitriche</i> and <i>Glyceria fluitans</i> are occasional
101	MC8d 100	Coastal grassland	Low	High % cover HI
102	OV27b 100	Other tall herb and fern - tall ruderal	Low	

103	MG5a 80: MC9e 20	Neutral grassland - unimproved	Low	
104	MG10a 100	Marsh/marshy grassland	Moderate	Je dominant
105	OV25b 100	Other tall herb and fern - tall ruderal	Low	Dominated by Ud
106	Mc8a 60: MC9e 30: MC8d 10	Coastal grassland	Low	
107	I1.2.1 100	Scree	Low	Artificial scree from quarrying
108	MC8a 100	Coastal grassland	Low	
109	MC8a 65: H7d 20: Bare rock 15	Coastal grassland	Low	
110	U17x 80: MC8a 20	Other tall herb and fern - non-ruderal	High	Domianted by Ls
111	MG5a 60: W23a 15: H7c 15: U17x 10	Neutral grassland - unimproved	Low	Mosaic of grassland and other heath/scrub habitats
112	H7d 70: U17x 20: M27a 10	Coastal heathland	Low	
113	Bare rock 100	Shingle/gravel above high-tide mark	Low	
114	U5d 60: H7c 20: MG5a 20	Acid grassland - unimproved	Low	
115	W23a 85: MG5a 15	Scrub - continuous	Low	
116	MC9e 90: MC8a 10	Coastal grassland	Low	
117	OV25b 100	Other tall herb and fern - tall ruderal	Low	Ud
118	MG1a 75: W23a 20: A3.1 5	Neutral grassland - unimproved	Low	
119	MG5a 100	Neutral grassland - unimproved	Low	
120	U17x 100	Other tall herb and fern - non-ruderal	High	Dominated by Ls/Aff
121	U17x 75: M27a 15: MC9e 10	Other tall herb and fern - non-ruderal	Low	Dominated by Ls/Aff
122	MC8a	Coastal grassland	Low	
123	M27a 100	Marsh/marshy grassland	Moderate	
124	H7d 100	Coastal heathland	Low	
125	U17x 100	Other tall herb and fern - non-ruderal	High	Dominated by Ls/Aff
126	MG5a 65: MC9e 35	Neutral grassland - unimproved	Low	
127	U17x 100	Other tall herb and fern - non-ruderal	High	Dominated by Ls
128	W23a 100	Scrub - continuous	Low	Ue
129	H7d 100	Coastal heathland	Low	
130	W23a 100	Scrub - continuous	Low	Ue
131	MC8a	Coastal grassland	Low	
132	MC8a 100	Coastal grassland	Low	
133	MG5a 80: U20a 20	Neutral grassland - unimproved	Low	Scattered Pt
134	MC8a 40: Bare rock 40: H7e 20	Coastal grassland	Low	
135	J3.6 100	Buildings and gardens	n/a	Ruin

136	MG5a 100	Neutral grassland - unimproved	Low	
137	U17x 100	Other tall herb and fern - non-ruderal	High	Dominated by Ls
138	U17x 100	Other tall herb and fern - non-ruderal	High	Dominated by Ls/Aff
139	MC9e 90: MG5a 10	Coastal grassland	Low	
140	MC8a 100	Coastal grassland	Low	
141	W23a 100	Scrub - continuous	Low	
142	U17x 80: M27a 20	Other tall herb and fern - non-ruderal	High	Dominated by Ls/Aff
143	MC9e 90: SMx 10	Coastal grassland	Low	Area dominated by coastal grassland with brackish slacks dominated by <i>Puccinellia maritima</i>
144	H7 90: Puc 10	Coastal heathland	Low	Vegetation dominated by <i>Puccinellia maritima</i> and <i>Carex flacca</i>
145	Bare rock 100	Maritime cliff	Low	
146	MG5a 100	Neutral grassland - unimproved	Low	
147	Cxn 75: MG5a 25	Coastal grassland	Moderate	Flushed grassland dominated by Cxn
148	MC9e 65: MC8a 20: H7d 10: MG5a 5	Coastal grassland	Low	
149	H7d 65: MC9e 20: Ros 15	Coastal heathland	Low	Scattered <i>Rosa canina</i>
150	Bare rock 80: MC8a/c 10 U17x 10	Maritime cliff	Low	Some crevice/ledge vegetation
151	H7d 90: MG5a 10	Coastal heathland	Low	
152	MC8a 80: U17x 10: H7d 8: Bare rock 2	Coastal grassland	Low	
153	M27a 80: MG5a 20	Marsh/marshy grassland	Moderate	
154	U17x 75: MC9e 20: MC8a 5	Other tall herb and fern - non-ruderal	High	
155	MC8a 78: Bare rock 22	Coastal grassland	Low	
156	MC8a 60: MC8c 20: Bare rock 20	Coastal grassland	Low	
157	U17x 100	Other tall herb and fern - non-ruderal	High	Dominated by Ls
158	MC8a 75: MC9e 25	Coastal grassland	Low	
159	Mc9e 100	Coastal grassland	Low	
160	U17x 88: H7d 12	Other tall herb and fern - non-ruderal	High	Dominated by Ls
161	MG10a 65: MG6a 35	Neutral grassland - semi-improved	Low-moderate	Ungrazed neutral grassland
162	MC8a 88: Bare rock 12	Coastal grassland	Low	
163	H7d 100	Coastal heathland	Low	
164	MC9e 85: MC9a 12	Coastal grassland	Low	
165	MC8a 75: H7d 15: Bare rock 10	Coastal grassland	Low	
166	MC8a 60: Bare rock 40	Coastal grassland	Low	

167	MC8a 90: MC8c 10	Coastal grassland	Low	
168	W23a 80: MC8a 20	Scrub - continuous	Low	
169	Bare rock 100	Maritime cliff	Low	
170	W23a 100	Scrub - continuous	Low	Ue
171	MG5a 80: MC8a 20	Neutral grassland - unimproved	Low	Bank of MC8a runs through grassland area
172	MC9e 90: MC8a 10	Coastal grassland	Low	
173	MC9e 100	Coastal grassland	Low	
174	MC9e 100	Coastal grassland	Low	
175	Bare rock 100	Maritime cliff	Low	
176	MC8a 100	Coastal grassland	Low	
177	MC8a 75: Bare rock 25	Coastal grassland	Low	
178	MC8a 66: Bare rock 24: MC8c 10	Crevice/ledge vegetation	Low	
179	MC8e 80: MC9e 20	Coastal grassland	Low	
180	U20c 100	Bracken - continuous	Low	
181	MC9e 90: MC8a 10	Coastal grassland	Low	
182	U20c 100	Bracken - continuous	Low	
183	MC8a 88: Bare rock 12	Coastal grassland	Low	
184	MC9e 86: MC8a 14	Coastal grassland	Low	
185	MC8a 85: Bare rock 15	Coastal grassland	Low	
186	Bare rock 100	Maritime cliff	Low	
187	Bare rock 100	Maritime cliff	Low	
188	MC8c 65: Bare rock 25: MC8a 10	Crevice/ledge vegetation	Low	
189	H7d 100	Coastal heathland	Low	
190	MC8a 95: Bare rock 5	Coastal grassland	Low	
191	MC8a 55: Bare rock 20: MC9e 20: MC8c 5	Coastal grassland	Low	
192	MC9e 90: MC8a 10	Coastal grassland	Low	
193	Bare rock 100	Maritime cliff	Low	
194	MC8a 70: H7d 25: U17x 5	Coastal grassland	Low	
195	MC8a 70: MC8c 15: Bare rock 15	Crevice/ledge vegetation	Low	
196	MC9e 70: MC8a 15: H7d 10: MG5a 5	Coastal grassland	Low	
197	MC8c 40: MC8a 30: Bare rock 30	Crevice/ledge vegetation	Low	
198	MC9e 100	Coastal grassland	Low	
199	MC8a 70: MC8c 15: Bare rock 15	Crevice/ledge vegetation	Low	
199	Bare rock 100	Maritime cliff	Low	
200	Bare rock 90: MC8c 10	Maritime cliff	Low	

<b>Abbreviation</b>	<b>Species</b>	<b>Common name</b>
Aff	<i>Athyrium filix-femina</i>	Lady fern
Ag	<i>Alnus glutinosa</i>	Alder
Ao	<i>Anthoxanthum odoratum</i>	Sweet-vernal grass
As	<i>Angelica sylvestris</i>	Wild angelica
Car	<i>Cirsium arvense</i>	Field thistle
Cha	<i>Chamerion angustifolium</i>	Rosebay willowherb
Cm	<i>Crataegus monogyna</i>	Hawthorn
Crc	<i>Crepis capillaris</i>	Smooth hawk's-beard
Cv	<i>Calluna vulgaris</i>	Heather
Cxn	<i>Carex nigra</i>	Common sedge
En	<i>Empetrum nigrum</i>	Crowberry
Je	<i>Juncus effusus</i>	Soft rush
Ju	<i>Juncus sp(p)</i>	Rush species
Lpc	<i>Lonicera periclymenum</i>	Honeysuckle
Ls	<i>Luzula sylvatica</i>	Greater woodrush
Pans	<i>Potentilla anserina</i>	Silverweed
Pt	<i>Pteridium aquilinum</i>	Bracken
Sxc	<i>Salix caprea</i>	Goat willow
Sxc	<i>Salix cinerea</i>	Grey willow
Tff	<i>Tussilago farfara</i>	Colt's foot
Ud	<i>Urtica dioica</i>	Common nettle
Ue	<i>Ulex europaeus</i>	European gorse

## APPENDIX B: TARGET NOTES

Target Note	Zone	Easting	Northing
1	NK	11707	40257
2	NK	11731	40083
3	NK	11992	39863
4	NK	11914	39842
5	NK	12051	39732
6	NK	12115	39786
7	NK	11757	40192
8	NK	11785	40634
9	NK	11910	40607
10	NK	11900	40384
11	NK	12019	40368
12	NK	12023	40340
13	NK	12013	40382
14	NK	12069	40301
15	NK	12079	40128
16	NK	12021	40132
17	NK	12111	39691
18	NK	11875	40371



**Target Note 1:** Field margin along abandoned railway cutting dominated by rush-pasture and neutral grassland communities. In the wetter 'dip' MG10 *Holcus lanatus*-*Juncus effusus* rush pasture communities dominate with the community constant species dominant alongside common sorrel *Rumex acetosa*, meadow buttercup *Ranunculus acris* and creeping buttercup *Ranunculus repens*.



**Target Note 2:** Field systems that are less intensively managed revert to mosaics of rush pasture and neutral grassland, here dominated by MG10a *Holcus lanatus*-*Juncus effusus* rush-pasture with stands of soft rush *Juncus effusus* interspersed amongst grasslands dominated by Yorkshire fog *Holcus lanatus* and creeping buttercup *Ranunculus repens*. In more open swards evidence of historic improvement can be seen with scattered crested dog's-tail *Cynosurus cristatus* and perennial rye-grass *Lolium perenne*.



**Target Note 3:** Expanse of grassy heath within field likely used for rough grazing. Here H7 *Calluna vulgaris-Scilla verna* heath communities dominate with high cover of cross-leaved heath *Erica tetralix* and *Cladonia* lichens. Crowberry *Empetrum nigrum*, heath rush *Juncus squarrosus* and mat –grass *Nardus stricta* are locally frequent but the sward is generally species-poor.



**Target Note 4:** Area of marshy grassland dominated by Soft rush *Juncus effusus*. In the wetter channel the marshy grassland transitions to M23b *Juncus effusus/acutiflorus-Galium palustre* rush-pasture *Juncus effusus* sub-community, a species-poor, marsh community with abundant marsh thistle *Cirsium palustre*, common sorrel and marsh willowherb *Epilobium palustre*.





**Target Note 5:** Area of heathy grassland dominated by mat-grass *Nardus stricta* as communities transition from heath to grassland. Here mat-grass dominates but heath species are present at low coverage beneath the grassy sward, reflecting the U5e *Calluna vulgaris-Danthonia decumbens* sub-community.



**Target Note 6:** Flushed area at field boundary dominated by Common sedge *Carex nigra* and grasses Yorkshire fog *Holcus lanatus*, sweet-vernal grass *Anthoxanthum odoratum*, with some forbs and herbs present more typical of neutral grassland including common sorrel *Rumex acetosa*, wild angelica *Angelica sylvestris* and marsh thistle *Cirsium palustre*. This community does not reflect any described in NVC.



**Target Note 7:** Field boundaries occasionally have scrub species within – here honeysuckle *Lonicera periclymenum* is present within a sward of MG1 *Arrhenatherum elatius* grassland typical of unmanaged margins.



**Target Note 8:** Fields at Longhaven mains are dominated by a mosaic of rush-pasture, MG10a *Holcus lanatus*-*Juncus effusus* rush-pasture and semi-improved neutral grassland, MG6a *Lolium perenne*-*Cynosurus cristatus* grassland. Both communities are relatively species-poor with creeping buttercup *Ranunculus repens* and white clover *Trifolium repens* dominant in the ground-layer. Occasionally these communities are punctuated by stands of weedy species, typically field thistle *Cirsium arvense*.



**Target Note 9:** Wetter area at field gate dominated by ivy-leaved crowfoot *Ranunculus hederaceus*, bulbous rush *uncus bulbosus* and blinks *Montia fontana*. The community is not reflected in the NVC but has been accorded an M35x *Ranunculus omiophyllus*-*Montia fontana* variant community coding to reflect the similarity in species composition and habitat type – an upwelling of groundwater or spring.



**Target Note 10:** Large expanse of M27 *Filipendula ulmaria*-*Angelica sylvestris* tall-herb fen running downslope to Longhaven Bay. In upper areas the sward is dominated by a thick cover of meadowsweet *Filipendula ulmaria*, soft rush *Juncus effusus*, wild angelica *Angelica sylvestris* and grassy species including Yorkshire fog *Holcus lanatus*. Further downslope the sward becomes less grassy and more herb-rich with marsh-marigold *Caltha palustris*, marsh hawksbeard *Crepis paludosa*, marsh woundwort *Stachys palustris* and marsh thistle *Cirsium palustre*.



**Target Note 11:** As ground flattens above Longhaven Bay wetter areas dominated by wild angelica *Angelica sylvestris* and meadowsweet *Filipendula ulmaria* have a more open sward with abundant marsh hawksbeard *Crepis paludosa*, marshy pennywort *Hydrocotyle vulgaris* and water mint *Mentha aquatica*.



**Target Note 12:** Steep, wet cliffs in Longhaven Bay have scattered roseroot *Sedum rosea* amongst stands of greater woodrush *Luzula sylvatica*, lady-fern *Athyrium filix-femina* and red fescue *Festuca rubra*.



**Target Note 13:** View across to north slopes of Longhaven Bay displaying dominance of MC8 *Festuca rubra*-*Armeria maritima* maritime grassland on steep cliff slopes. Stands of M27 *Filipendula ulmaria*-*Angelica sylvestris* mire and U17x *Luzula sylvatica*-*Geum rivale* community – typically dominated by greater woodrush *Luzula sylvatica* and/or *Athyrium filix-femina* are present on lower slopes, likely where there is movement of water through the slope. On upper slope heathier maritime communities and gorse *Ulex europaeus* dominated scrub are more prevalent.



**Target Note 14:** Communities on cliff-tops around Longhaven Bay are frequently dominated by a thick carpet of greater woodrush *Luzula sylvatica* with little else in the sward. These communities have been coded as U17x *Luzula sylvatica*-*Geum rivale* community variant sub-community and are typically concentrated around Longhaven Bay.



**Target Note 15:** Areas of coastal heathland are frequent throughout the Longhaven Cliffs nature reserve, typically dominated by bell heath *Erica cinerea*, heather *Calluna vulgaris* and crowberry *Empetrum nigrum*. The sward also contains a high cover of grasses, typically sheep's fescue *Festuca ovina*, heath grass *Danthonia decumbens* and sweet-vernal grass *Anthoxanthum odoratum*. Heath communities occupy cliff edges and ledges, flatter areas on shallow soils on cliff tops and are also found inland on peatier substrate. The dominant heath community across the site is H7d *Calluna vulgaris*-*Scilla verna* heath *Empetrum nigrum* ssp. *nigrum* sub-community where crowberry is co-dominant with dwarf shrubs.



**Target Note 16:** Areas of quarrying (now abandoned) are present throughout the Longhaven Cliffs nature reserve, and there are several areas of open water within quarries. Vegetation communities around quarry cliffs is typically diverse – here reflecting a mosaic of mire, scrub, maritime grassland and tall herb and fern communities (M27, U17x, W23a, OV27b).



**Target Note 17:** Area of glaucous sedge *Carex flacca* in wetter depression within grassy coastal heath community. This reflects a variation of H7 *Calluna vulgaris-Scilla verna* heath and is described in the NVC where such sedges favour free-draining and more base-rich soils.

**Target Note 18:** Monbretia *Crocsmia x crocosmiiflora* – single plant located by old ruin

## APPENDIX C: FLORAL SPECIES LISTS

Scientific name	Common name	Family	Origin
<i>Achillea millefolium</i>	Yarrow	Asteraceae	N
<i>Achillea ptarmica</i>	Sneezewort	Asteraceae	N
<i>Agrostis canina</i>	Velvet Bent	Poaceae	N
<i>Agrostis capillaris</i>	Common Bent	Poaceae	N
<i>Agrostis stolonifera</i>	Creeping Bent	Poaceae	N
<i>Aira praecox</i>	Early Hair-grass	Poaceae	N
<i>Ajuga reptans</i>	Bugle	Lamiaceae	N
<i>Anemone nemorosa</i>	Wood Anemone	Ranunculaceae	N
<i>Angelica sylvestris</i>	Wild Angelica	Apiaceae	N
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	Poaceae	N
<i>Anthriscus sylvestris</i>	Cow Parsley	Apiaceae	N
<i>Arctium minus</i>	Lesser Burdock	Asteraceae	N
<i>Armeria maritima ssp. maritima</i>	Thrift	Plumbaginaceae	N
<i>Arrhenatherum elatius</i>	False Oat-grass	Poaceae	N
<i>Athyrium filix-femina</i>	Lady-fern	Woodsiaceae	N
<i>Bellis perennis</i>	Daisy	Asteraceae	N
<i>Callitriche stagnalis</i>	Common Water-starwort	Callitrichaceae	N
<i>Calluna vulgaris</i>	Heather	Ericaceae	N
<i>Caltha palustris</i>	Marsh-marigold	Ranunculaceae	N
<i>Campanula rotundifolia</i>	Harebell	Campanulaceae	N
<i>Cardamine pratensis</i>	Cuckooflower	Brassicaceae	N
<i>Carex binervis</i>	Green-ribbed Sedge	Cyperaceae	N
<i>Carex demissa</i>	Common Yellow-sedge	Cyperaceae	N
<i>Carex echinata</i>	Star Sedge	Cyperaceae	N
<i>Carex flacca</i>	Glaucous Sedge	Cyperaceae	N
<i>Carex leporina</i>	Oval Sedge	Cyperaceae	N
<i>Carex panicea</i>	Carnation Sedge	Cyperaceae	N
<i>Centaurea nigra</i>	Common Knapweed	Asteraceae	N
<i>Cerastium glomeratum</i>	Sticky Mouse-ear	Caryophyllaceae	N
<i>Chamerion angustifolium</i>	Rosebay Willowherb	Onagraceae	N
<i>Cirsium arvense</i>	Creeping Thistle	Asteraceae	N
<i>Cirsium palustre</i>	Marsh Thistle	Asteraceae	N
<i>Cirsium vulgare</i>	Spear Thistle	Asteraceae	N
<i>Cochlearia officinalis</i>	Common Scurvygrass	Brassicaceae	N
<i>Conopodium majus</i>	Pignut	Apiaceae	N
<i>Cortaderia selloana</i>	Pampas grass	Poaceae	IN
<i>Cotoneaster sp.</i>	Cotoneaster sp.	Rosaceae	IN
<i>Crataegus monogyna</i>	Hawthorn	Rosaceae	N
<i>Crepis capillaris</i>	Smooth Hawk's-beard	Asteraceae	N
<i>Crepis paludosa</i>	Marsh Hawk's-beard	Asteraceae	N
<i>Crocoshia x crocosmiiiflora</i>	Monbretia	Ixioidaea	IN



Scientific name	Common name	Family	Origin
<i>Cynosurus cristatus</i>	Crested Dog's-tail	Poaceae	N
<i>Cytisus scoparius ssp. scoparius</i>	Broom	Fabaceae	N
<i>Dactylis glomerata</i>	Cock's-foot	Poaceae	N
<i>Dactylorhiza purpurella</i>	Northern Marsh-orchid	Orchidaceae	N
<i>Danthonia decumbens</i>	Heath-grass	Poaceae	N
<i>Deschampsia cespitosa ssp. cespitosa</i>	Tufted Hair-grass	Poaceae	N
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	Poaceae	N
<i>Digitalis purpurea</i>	Foxglove	Veronicaceae	N
<i>Dryopteris affinis</i>	Golden-scaled Male-fern	Dryopteridaceae	N
<i>Dryopteris filix-mas</i>	Male-fern	Dryopteridaceae	N
<i>Eleocharis palustris</i>	Common Spike-rush	Cyperaceae	N
<i>Empetrum nigrum ssp. nigrum</i>	Crowberry	Ericaceae	N
<i>Epilobium montanum</i>	Broad-leaved Willowherb	Onagraceae	N
<i>Epilobium palustre</i>	Marsh Willowherb	Onagraceae	N
<i>Equisetum arvense</i>	Field Horsetail	Equisetaceae	N
<i>Equisetum palustre</i>	Marsh Horsetail	Equisetaceae	N
<i>Equisetum sylvaticum</i>	Wood Horsetail	Equisetaceae	N
<i>Erica cinerea</i>	Bell Heather	Ericaceae	N
<i>Erica tetralix</i>	Cross-leaved Heath	Ericaceae	N
<i>Eriophorum angustifolium</i>	Common Cottongrass	Cyperaceae	N
<i>Euphrasia sp.</i>	Eyebright	Orobanchaceae	N
<i>Festuca ovina</i>	Sheep's-fescue	Poaceae	N
<i>Festuca rubra</i>	Red Fescue	Poaceae	N
<i>Filipendula ulmaria</i>	Meadowsweet	Rosaceae	N
<i>Galium aparine</i>	Cleavers	Rubiaceae	N
<i>Galium saxatile</i>	Heath Bedstraw	Rubiaceae	N
<i>Galium verum</i>	Lady's Bedstraw	Rubiaceae	N
<i>Glyceria fluitans</i>	Floating sweet-grass	Poaceae	N
<i>Heracleum sphondylium</i>	Hogweed	Apiaceae	N
<i>Hieracium agg.</i>	Hawkweed	Asteraceae	N
<i>Holcus lanatus</i>	Yorkshire-fog	Poaceae	N
<i>Holcus mollis</i>	Creeping Soft-grass	Poaceae	N
<i>Hydrocotyle vulgaris</i>	Marsh Pennywort	Apiaceae	N
<i>Hypericum pulchrum</i>	Slender St John's-wort	Hypericaceae	N
<i>Hypochaeris radicata</i>	Cat's-ear	Asteraceae	N
<i>Juncus articulatus</i>	Jointed Rush	Juncaceae	N
<i>Juncus bufonius</i>	Toad Rush	Juncaceae	N
<i>Juncus bulbosus</i>	Bulbous Rush	Juncaceae	N
<i>Juncus conglomeratus</i>	Compact Rush	Juncaceae	N
<i>Juncus effusus</i>	Soft-rush	Juncaceae	N
<i>Juncus gerardii</i>	Saltmarsh Rush	Juncaceae	N
<i>Juncus squarrosus</i>	Heath Rush	Juncaceae	N
<i>Lathyrus pratensis</i>	Meadow Vetchling	Fabaceae	N

Scientific name	Common name	Family	Origin
<i>Leucanthemum vulgare</i>	Oxeye Daisy	Asteraceae	N
<i>Ligusticum scoticum</i>	Scot's Lovage	Apiaceae	N
<i>Litorella uniflora</i>	Shoreweed	Plantaginaceae	N
<i>Lolium perenne</i>	Perennial Rye-grass	Poaceae	N
<i>Lonicera periclymenum</i>	Honeysuckle	Caprifoliaceae	N
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	Fabaceae	N
<i>Luzula multiflora ssp. congesta</i>	Heath Wood-rush	Juncaceae	N
<i>Luzula multiflora ssp. multiflora</i>	Heath Wood-rush	Juncaceae	N
<i>Luzula sylvatica</i>	Great Wood-rush	Juncaceae	N
<i>Matricaria discoidea</i>	Pineappleweed	Asteraceae	IN
<i>Montia fontana</i>	Blinks	Montiaceae	N
<i>Nardus stricta</i>	Mat-grass	Poaceae	N
<i>Parnassus palustris</i>	Grass-of-Parnassus	Parnassiaceae	N
<i>Pedicularis sylvatica</i>	Lousewort	Orobanchaceae	N
<i>Plantago lanceolata</i>	Ribwort Plantain	Plantaginaceae	N
<i>Plantago major</i>	Greater Plantain	Plantaginaceae	N
<i>Plantago maritima</i>	Sea Plantain	Plantaginaceae	N
<i>Poa humilis</i>	Spreading Meadow-grass	Poaceae	N
<i>Poa pratensis</i>	Smooth Meadow-grass	Poaceae	N
<i>Polygala serpyllifolia</i>	Heath Milkwort	Polygalaceae	N
<i>Polypodium vulgare</i>	Polypody	Polypodiaceae	N
<i>Potamogeton polygonifolius</i>	Bog Pondweed	Potamogetonaceae	N
<i>Potentilla anserina</i>	Silverweed	Rosaceae	N
<i>Potentilla erecta</i>	Tormentil	Rosaceae	N
<i>Primula vulgaris</i>	Primrose	Primulaceae	N
<i>Prunus spinosa</i>	Blackthorn	Rosaceae	N
<i>Pteridium aquilinum ssp. aquilinum</i>	Bracken	Dennstaedtiaceae	N
<i>Puccinellia maritima</i>	Common Saltmarsh-grass	Poaceae	N
<i>Quercus sp.</i>	Oak sp.	Fagaceae	N
<i>Ranunculus acris</i>	Meadow Buttercup	Ranunculaceae	N
<i>Ranunculus flammula ssp. flammula</i>	Lesser Spearwort	Ranunculaceae	N
<i>Ranunculus hederaceus</i>	Ivy-leaved Crowfoot	Ranunculaceae	N
<i>Ranunculus repens</i>	Creeping Buttercup	Ranunculaceae	N
<i>Rhinanthus minor</i>	Yellow-rattle	Orobanchaceae	N
<i>Rosa canina</i>	Dog-rose	Rosaceae	N
<i>Rubus fruticosus agg.</i>	Bramble	Rosaceae	N
<i>Rumex acetosa</i>	Common Sorrel	Polygonaceae	N
<i>Rumex acetosella</i>	Sheep's Sorrel	Polygonaceae	N
<i>Rumex crispus ssp. crispus</i>	Curled Dock	Polygonaceae	N
<i>Rumex obtusifolius</i>	Broad-leaved Dock	Polygonaceae	N
<i>Salix aurita</i>	Eared Willow	Salicaceae	N
<i>Salix caprea</i>	Goat Willow	Salicaceae	N
<i>Salix cinerea</i>	Grey Willow	Salicaceae	N

Scientific name	Common name	Family	Origin
<i>Salix repens</i>	Creeping Willow	Salicaceae	N
<i>Scorzonerooides autumnalis</i>	Autumn Hawkbit	Asteraceae	N
<i>Sedum rosea</i>	Roseroot	Crassulaceae	N
<i>Senecio jacobaea</i>	Common Ragwort	Asteraceae	N
<i>Senecio sylvaticus</i>	Heath Groundsel	Asteraceae	N
<i>Senecio vulgaris</i>	Groundsel	Asteraceae	N
<i>Silene dioica</i>	Red Campion	Caryophyllaceae	N
<i>Silene uniflora</i>	Sea Campion	Caryophyllaceae	N
<i>Solidago virgaurea</i>	Goldenrod	Asteraceae	N
<i>Sonchus asper</i>	Prickly Sowthistle	Asteraceae	N
<i>Stachys palustris</i>	Marsh Woundwort	Lamiaceae	N
<i>Stellaria alsine</i>	Bog Stitchwort	Caryophyllaceae	N
<i>Succisa pratensis</i>	Devil's-bit Scabious	Dipsacaceae	N
<i>Trifolium medium</i>	Zigzag Clover	Fabaceae	N
<i>Trifolium pratense</i>	Red Clover	Fabaceae	N
<i>Trifolium repens</i>	White Clover	Fabaceae	N
<i>Triglochin maritima</i>	Sea Arrowgrass	Juncaginaceae	N
<i>Tripleurospermum maritimum</i>	Sea Mayweed	Asteraceae	N
<i>Tussilago farfara</i>	Colt's-foot	Asteraceae	N
<i>Ulex europaeus</i>	Gorse	Fabaceae	N
<i>Urtica dioica ssp. dioica</i>	Common Nettle	Urticaceae	N
<i>Vicia cracca</i>	Tufted Vetch	Fabaceae	N
<i>Vicia sepium</i>	Bush Vetch	Fabaceae	N
<i>Viola palustris</i>	Marsh Violet	Violaceae	N
<i>Viola riviniana</i>	Common Dog-violet	Violaceae	N

'N' – Native, 'IN' – Introduced

NB. No species of conservation concern were identified.

## APPENDIX D: FIGURES

411000

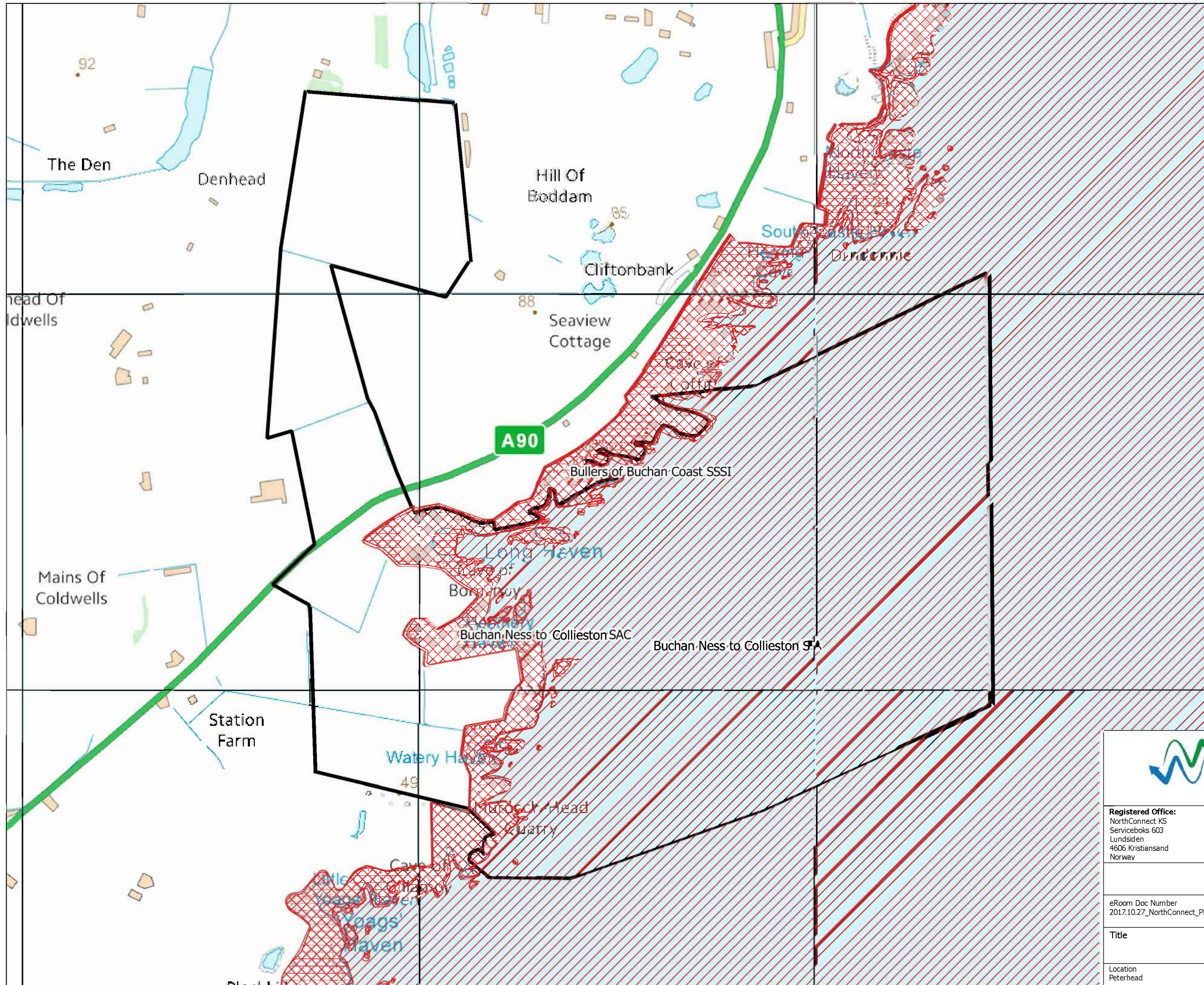
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- Legend**
- HVDC Site Boundary
  - Special Protection Area
  - Special Area of Conservation
  - Site of Special Scientific Interest



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Title Figure 1: Site Location			
Location Peterhead	Drawing Number 3155	Sht No 1/1	Rev No A









411600

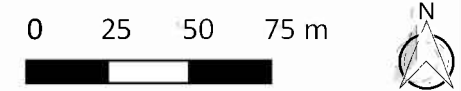
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412200

Legend

-  HVDC Site Boundary
-  Target Notes
-  Access track
-  Acid grassland - unimproved
-  Bare ground
-  Bare peat
-  Bracken - continuous
-  Broadleaved woodland - semi-natural
-  Broadleaved woodland/Scrub
-  Buildings and gardens
-  Coastal grassland
-  Coastal heathland
-  Crevice/ledge vegetation
-  Cultivated/disturbed land - arable
-  Maritime cliff
-  Marsh/marshy grassland
-  Neutral grassland - semi-improved
-  Neutral grassland - unimproved
-  Open water
-  Other tall herb and fern - non-ruderal
-  Other tall herb and fern - tall ruderal
-  Quarry
-  Rock exposure
-  Saltmarsh
-  Scree
-  Scrub - continuous
-  Scrub - scattered
-  Shingle/gravel above high-tide mark



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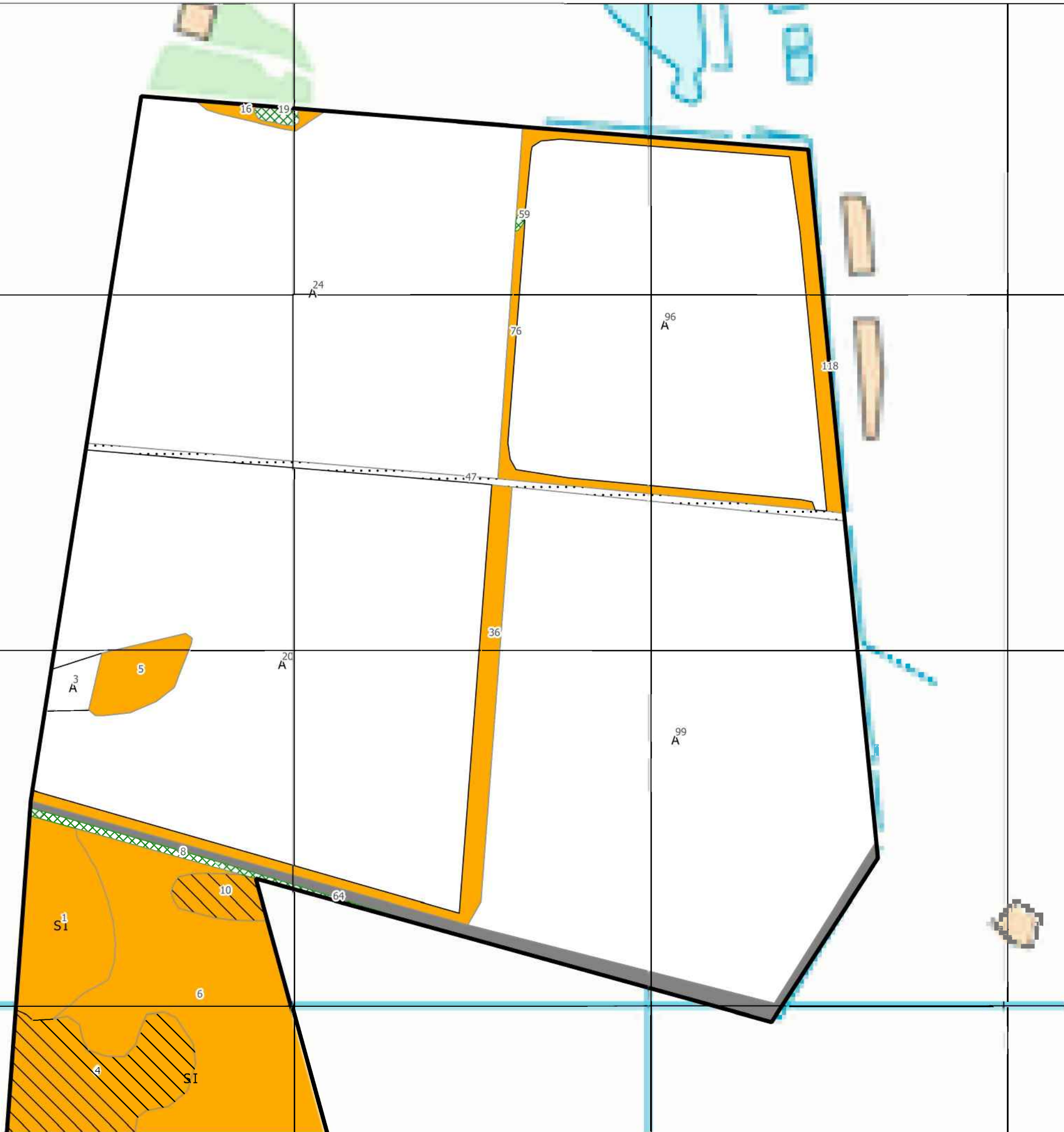
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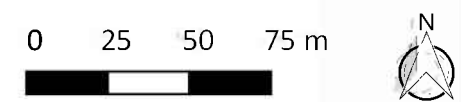
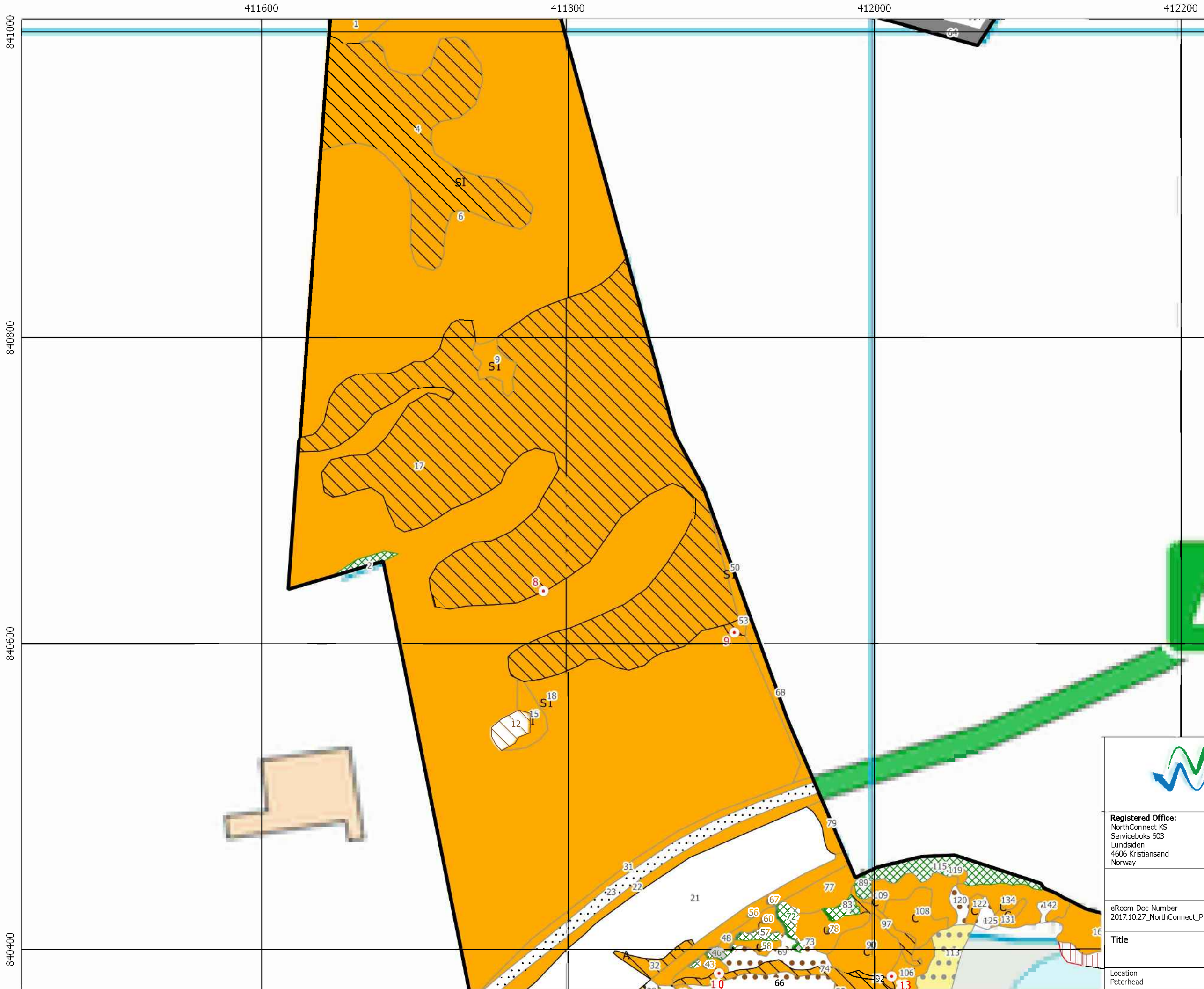


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		Drawing Status	
eRoom Doc Number 2017.10.27_NorthConnect_PER_DRA_Figure_2a:_NVC_Survey_Results_3156			
Title <b>Figure 2a: NVC Survey Results</b>			
Location Peterhead	Drawing Number 3156	Sht No 1/1	Rev No A





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	<b>Drawing Status</b>		
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<b>Title</b> Figure 2b: NVC Survey Results			
Location Peterhead	Drawing Number 3157	Sht No 1/1	Rev No A

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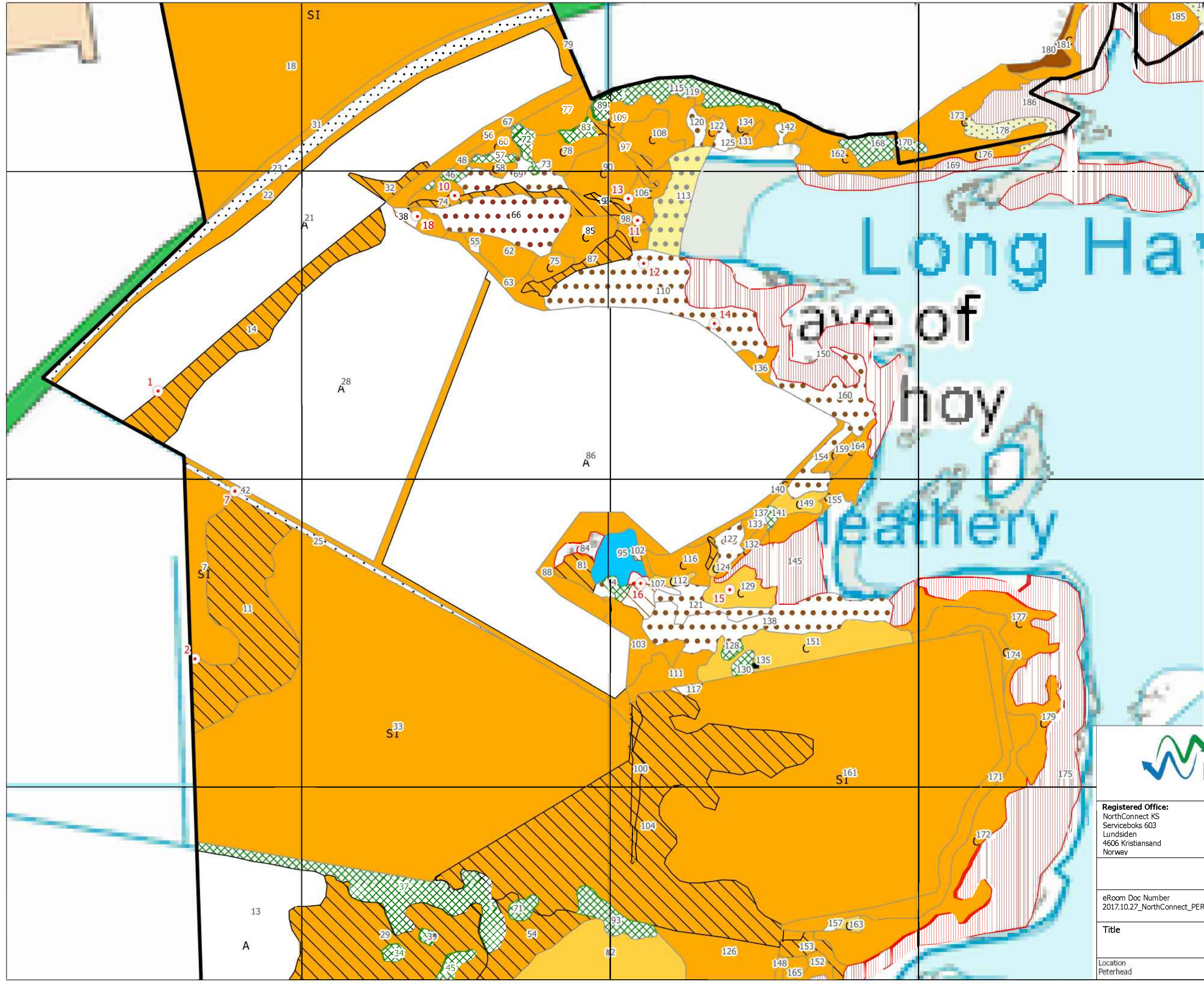
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840200

840000



**Legend**

- HVDC Site Boundary
- Target Notes
- Access track
- Acid grassland - unimproved
- Bare ground
- Bare peat
- Bracken - continuous
- Broadleaved woodland - semi-natural
- Broadleaved woodland/Scrub
- Buildings and gardens
- Coastal grassland
- Coastal heathland
- Crevice/ledge vegetation
- Cultivated/disturbed land - arable
- Maritime cliff
- Marsh/marshy grassland
- Neutral grassland - semi-improved
- Neutral grassland - unimproved
- Open water
- Other tall herb and fern - non-ruderal
- Other tall herb and fern - tall ruderal
- Quarry
- Rock exposure
- Saltmarsh
- Scree
- Scrub - continuous
- Scrub - scattered
- Shingle/gravel above high-tide mark

0 25 50 75 m

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			Drawing Status
eRoom Doc Number 2017.10.27_NorthConnect_PER_DRA_Figure_2c:_NVC_Survey_Results_3158			
Title Figure 2c: NVC Survey Results			
Location Peterhead	Drawing Number 3158	Sheet No. 1/1	Rev No A



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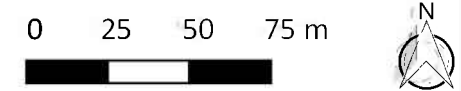
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- Legend**
- HVDC Site Boundary
  - Target Notes
  - Access track
  - Acid grassland - unimproved
  - Bare ground
  - Bare peat
  - Bracken - continuous
  - Broadleaved woodland - semi-natural
  - Broadleaved woodland/Scrub
  - Buildings and gardens
  - Coastal grassland
  - Coastal heathland
  - Crevice/ledge vegetation
  - Cultivated/disturbed land - arable
  - Maritime cliff
  - Marsh/marshy grassland
  - Neutral grassland - semi-improved
  - Neutral grassland - unimproved
  - Open water
  - Other tall herb and fern - non-ruderal
  - Other tall herb and fern - tall ruderal
  - Quarry
  - Rock exposure
  - Saltmarsh
  - Scree
  - Scrub - continuous
  - Scrub - scattered
  - Shingle/gravel above high-tide mark



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		Drawing Status	
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Title Figure 2d: NVC Survey Results			
Location Peterhead	Drawing Number 3159	Sht No 1/1	Rev No A

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# Cottage

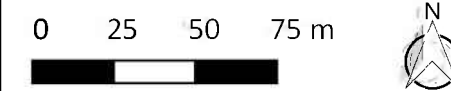
# Cave of Coffin

# A90

# Long Haven

### Legend

-  HVDC Site Boundary
-  Target Notes
-  Access track
-  Acid grassland - unimproved
-  Bare ground
-  Bare peat
-  Bracken - continuous
-  Broadleaved woodland - semi-natural
-  Broadleaved woodland/Scrub
-  Buildings and gardens
-  Coastal grassland
-  Coastal heathland
-  Crevice/ledge vegetation
-  Cultivated/disturbed land - arable
-  Maritime cliff
-  Marsh/marshy grassland
-  Neutral grassland - semi-improved
-  Neutral grassland - unimproved
-  Open water
-  Other tall herb and fern - non-ruderal
-  Other tall herb and fern - tall ruderal
-  Quarry
-  Rock exposure
-  Saltmarsh
-  Scree
-  Scrub - continuous
-  Scrub - scattered
-  Shingle/gravel above high-tide mark



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Drawing Status

eRoom Doc Number  
2017.10.27\_NorthConnect\_PER\_DRA\_Figure\_2e:\_NVC\_Survey\_Results\_3160

Title  
Figure 2e: NVC Survey Results

Location Peterhead	Drawing Number 3160	Sht No 1/1	Rev No A
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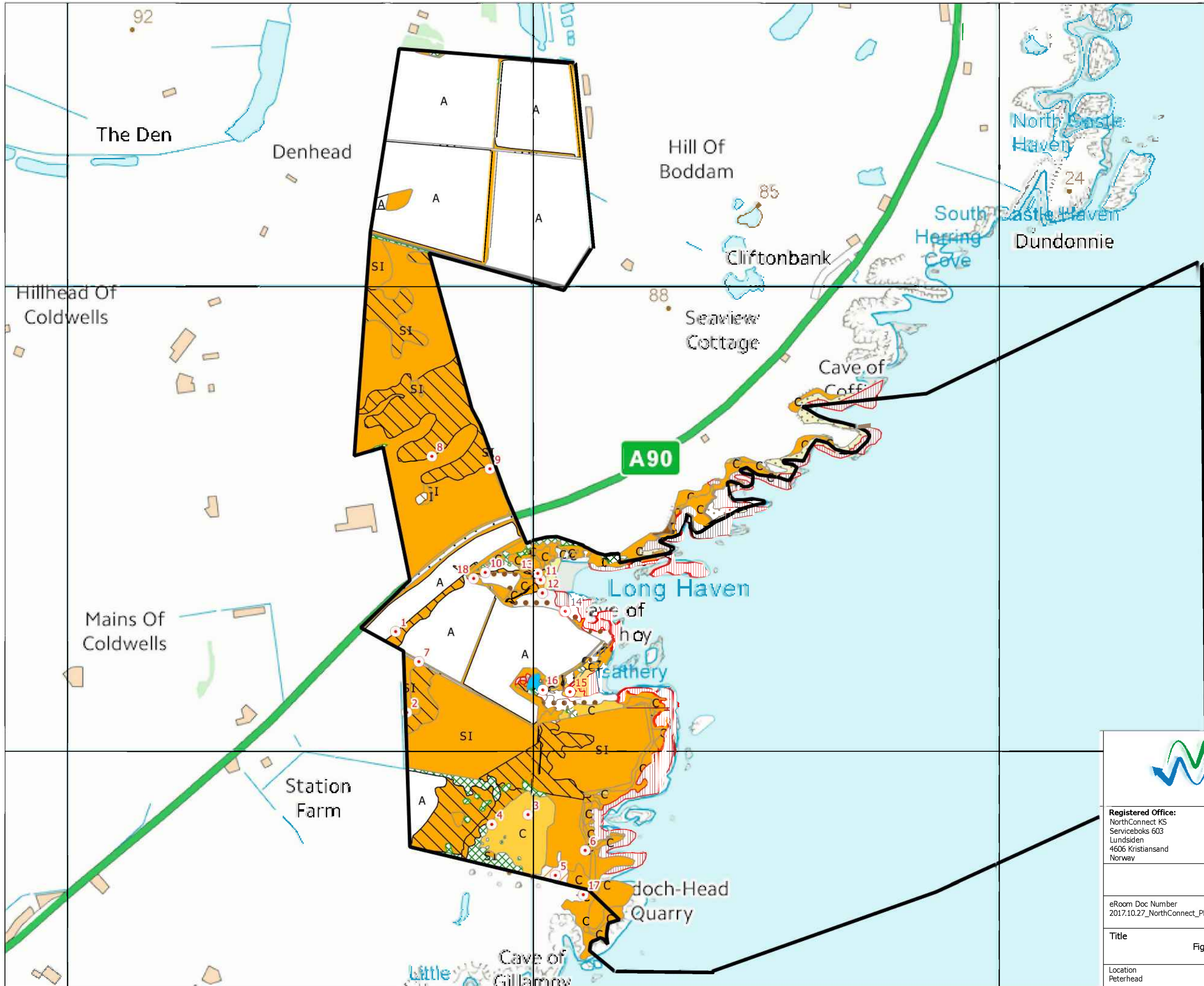
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- Legend**
- HVDC Site Boundary
  - Target Notes
  - Access track
  - Acid grassland - unimproved
  - Bare ground
  - Bare peat
  - Bracken - continuous
  - Broadleaved woodland - semi-natural
  - Broadleaved woodland/Scrub
  - Buildings and gardens
  - Coastal grassland
  - Coastal heathland
  - Crevice/ledge vegetation
  - Cultivated/disturbed land - arable
  - Maritime cliff
  - Marsh/marshy grassland
  - Neutral grassland - semi-improved
  - Neutral grassland - unimproved
  - Open water
  - Other tall herb and fern - non-ruderal
  - Other tall herb and fern - tall ruderal
  - Quarry
  - Rock exposure
  - Saltmarsh
  - Scree
  - Scrub - continuous
  - Scrub - scattered
  - Shingle/gravel above high-tide mark



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		Drawing Status	
eRoom Doc Number 2017.10.27_NorthConnect_PER_DRA_Figure_2f:_NVC_Survey_Results_(Overview)_3161			
Title Figure 2f: NVC Survey Results (Overview)			
Location Peterhead	Drawing Number 3161	Sht No 1/1	Rev No A








411600

411800

412000

412200

Legend

-  HVDC Site Boundary
- GWDTE Score**
-  Low
-  Low-moderate
-  Moderate
-  Moderate-high
-  High
-  n/a

841400

841200

841000

head

B



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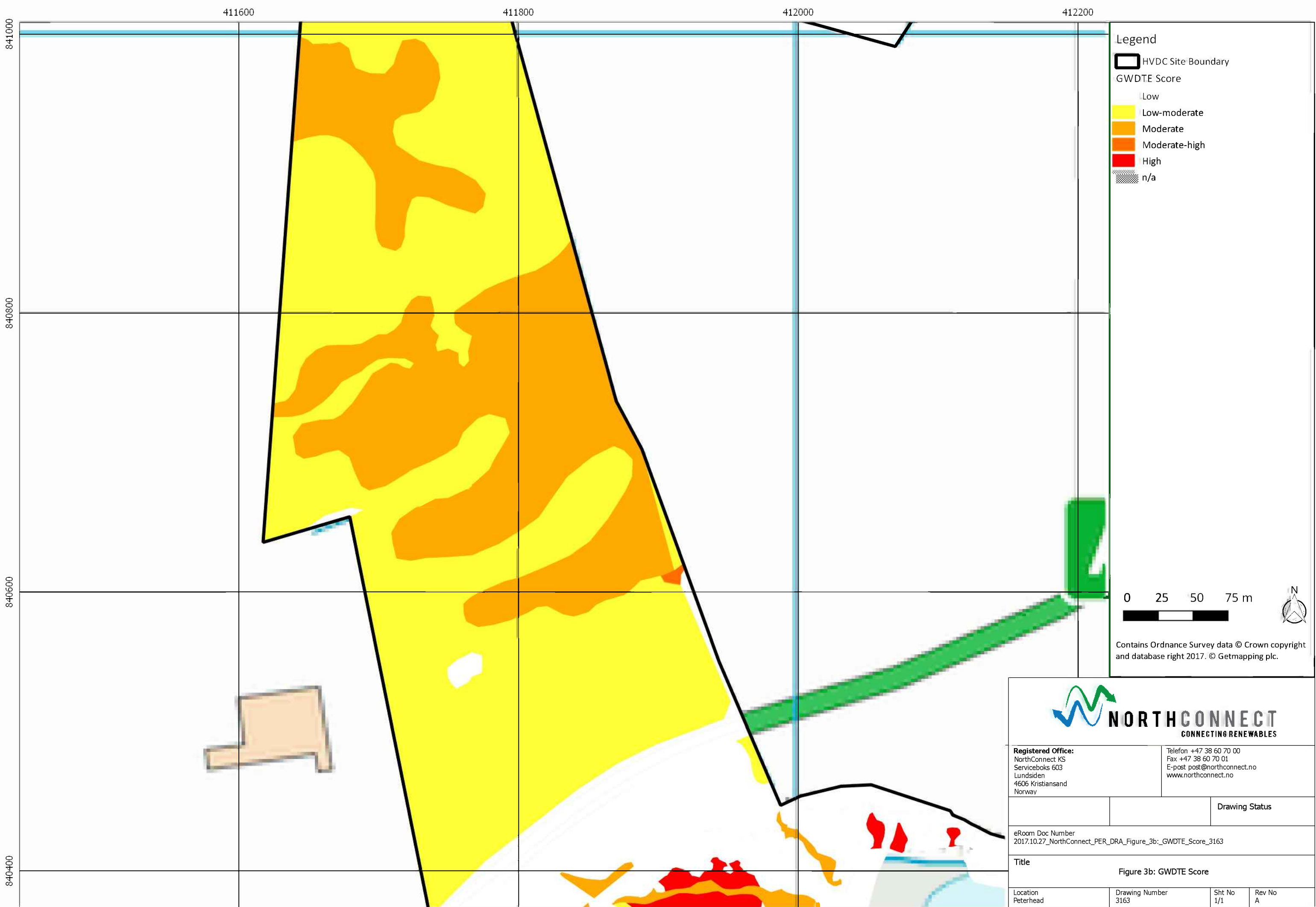
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Drawing Status








eRoom Doc Number  
 2017.10.27\_NorthConnect\_PER\_DRA\_Figure\_3a:\_GWDTE\_Score\_3162


**Title**  
 Figure 3a: GWDTE Score

Location Peterhead	Drawing Number 3162	Sht No 1/1	Rev No A
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**Legend**

-  HVDC Site Boundary
- GWDTE Score**
-  Low
-  Low-moderate
-  Moderate
-  Moderate-high
-  High
-  n/a

0 25 50 75 m 

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		Drawing Status	
eRoom Doc Number 2017.10.27_NorthConnect_PER_DRA_Figure_3b:_GWDTE_Score_3163			
Title Figure 3b: GWDTE Score			
Location Peterhead	Drawing Number 3163	Sht No 1/1	Rev No A

411800

412000

412200

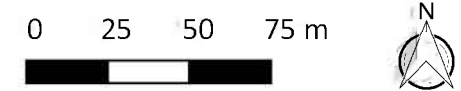
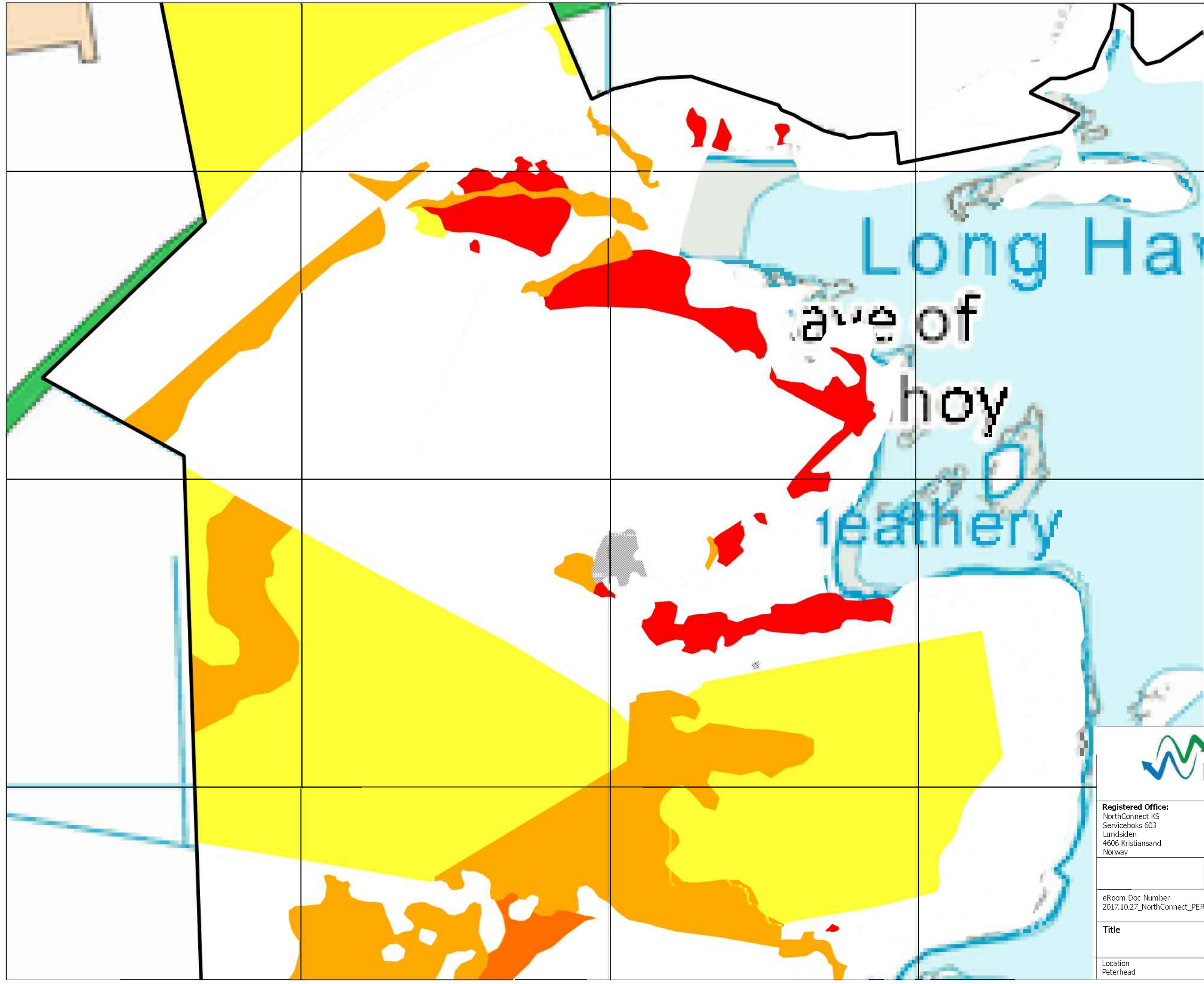
Legend

-  HVDC Site Boundary
- GWDTE Score**
-  Low
-  Low-moderate
-  Moderate
-  Moderate-high
-  High
-  n/a

840400

840200

840000



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		Drawing Status	
eRoom Doc Number 2017.10.27_NorthConnect_PER_DRA_Figure_3c:_GWDTE_Score_3164			
Title Figure 3c: GWDTE Score			
Location Peterhead	Drawing Number 3164	Sht No 1/1	Rev No A

411800

412000

412200








412400

840000

839800

839600

**Legend**

-  HVDC Site Boundary
- GWDTE Score**
-  Low
-  Low-moderate
-  Moderate
-  Moderate-high
-  High
-  n/a



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		Drawing Status	
eRoom Doc Number 2017.10.27_NorthConnect_PER_DRA_Figure_3d:_GWDTE_Score_3165			
Title Figure 3d: GWDTE Score			
Location Peterhead	Drawing Number 3165	Sht No 1/1	Rev No A

412200

412400

412600

412800

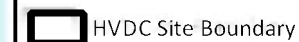

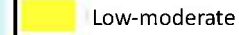
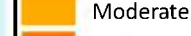



Cottage

Cave of  
Coff

A90

Long Haven

Legend

-  HVDC Site Boundary
- GWDTE Score**
-  Low
-  Low-moderate
-  Moderate
-  Moderate-high
-  High
-  n/a

0 25 50 75 m



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eRoom Doc Number  
2017.10.27\_NorthConnect\_PER\_DRA\_Figure\_3e:\_GWDTE\_Score\_3166

Title  
Figure 3e: GWDTE Score

Location Peterhead	Drawing Number 3166	Sht No 1/1	Rev No A
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840800

840600

840400



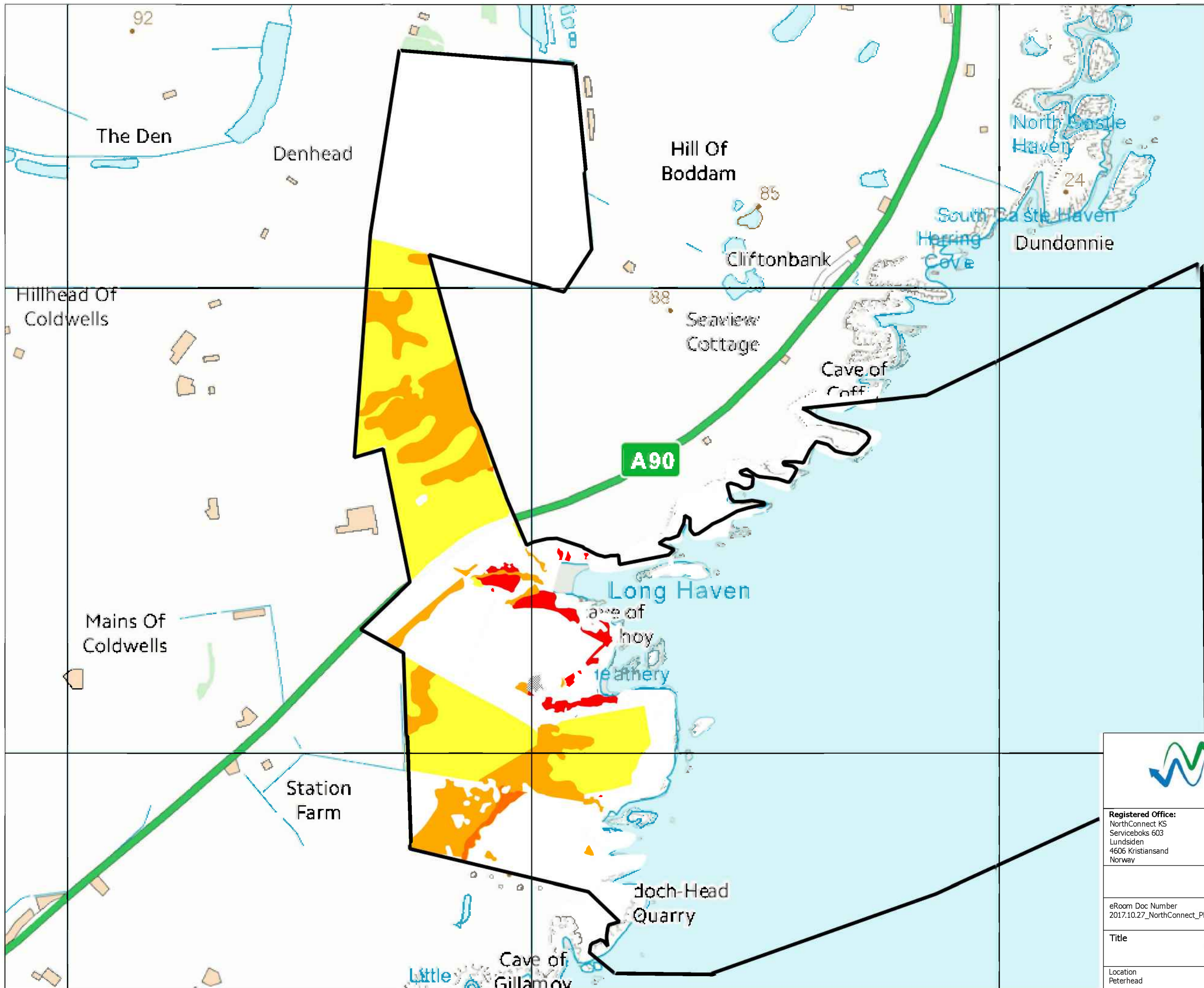
411000

412000

413000

841000

840000



**Legend**

- HVDC Site Boundary
- GWDTE Score**
- Low
- Low-moderate
- Moderate
- Moderate-high
- High
- n/a



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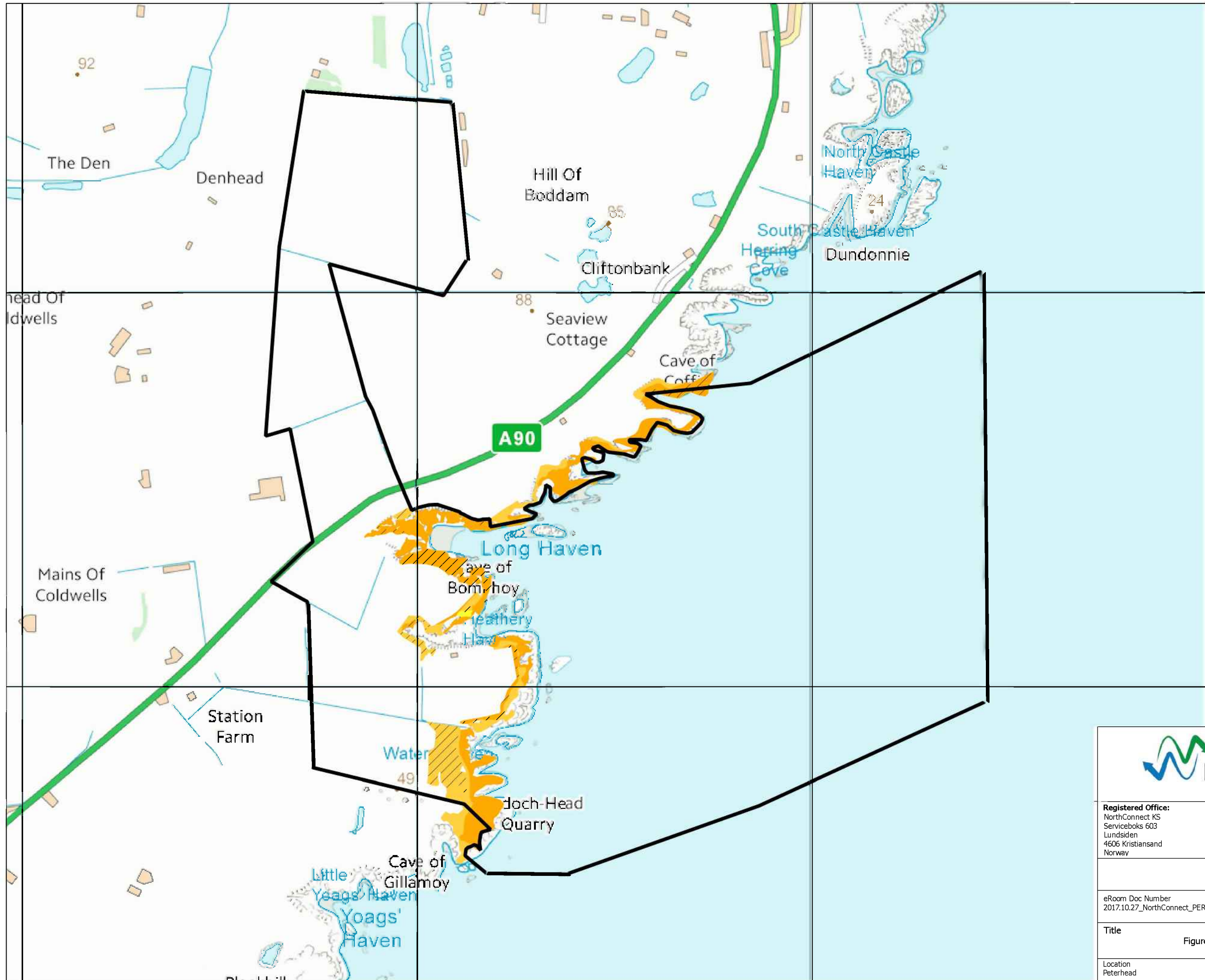
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Drawing Status

eRoom Doc Number  
 2017.10.27\_NorthConnect\_PER\_DRA\_Figure\_3f:\_GWDTE\_Score\_(Overview)\_3167

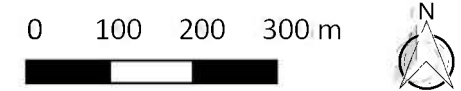
Title  
 Figure 3f: GWDTE Score (Overview)

Location Peterhead	Drawing Number 3167	Sht No 1/1	Rev No A
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**Legend**

- HVDC Site Boundary
- Habitats of Conservation Concern**
- MC8 (dominant)
- MC8 (sub-dominant)
- MC9 (dominant)
- MC9 (sub-dominant)
- H7 (dominant)



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			Drawing Status
eRoom Doc Number 2017.10.27_NorthConnect_PER_DRA_Figure_4:_Habitats_of_Conservation_Concern_3168			
<b>Title</b> Figure 4: Habitats of Conservation Concern			
Location Peterhead	Drawing Number 3168	Sht No 1/1	Rev No A

411000

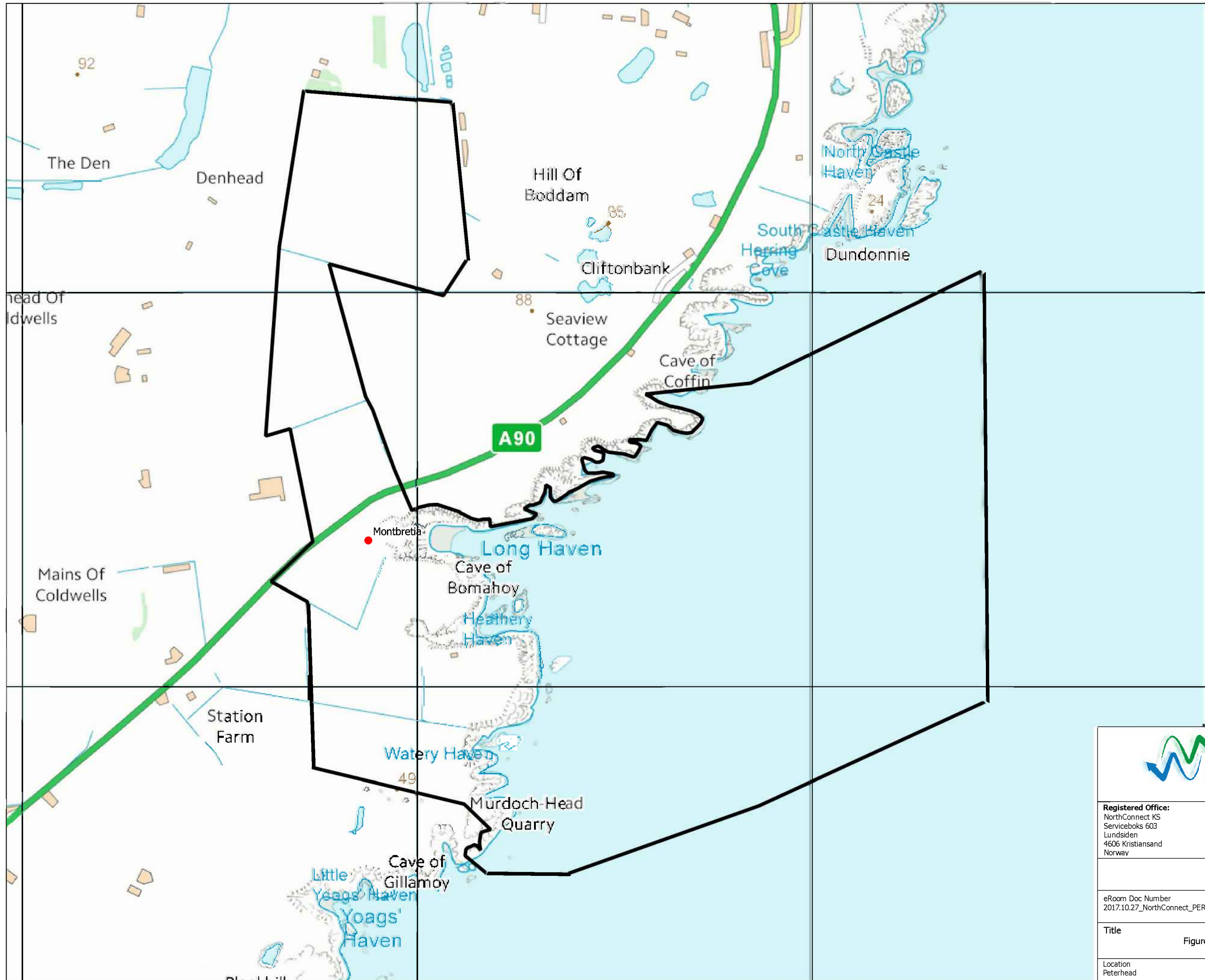
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413000

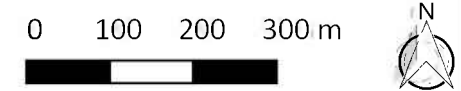
414000

841000

840000



- Legend
-  HVDC Site Boundary
  -  Non-native Flora



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	Drawing Status
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eRoom Doc Number  
2017.10.27\_NorthConnect\_PER\_DRA\_Figure\_4:\_Habitats\_of\_Conservation\_Concern\_3168

Title			
Figure 4: Habitats of Conservation Concern			

Location Peterhead	Drawing Number 3168	Sht No 1/1	Rev No A
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