



Erebus: Onshore Cable Route

Technical Appendix 20.3: National Vegetation Classification Survey Report

Client:	BlueGem
Project/Proposal No:	2923
Version:	1.0
Date:	2021-09-08





Document Information

Project Name:	Erebus: Onshore Cable Route
Document Title:	Technical Appendix 20.3: National Vegetation Classification Survey Report
Client Name:	BlueGem
Client Contact:	Ben Huskinson
Document Status:	Final for Issue
Author:	J Hudson (Jon Hudson Ecological Consultancy)
Reviewed:	Dr M Forup
Approved:	R King
Date:	2021-09-08
Version:	1.0
Project/Proposal Number:	2923
ITPEnergised Office:	4th Floor, Centrum House, 108-114 Dundas Street, Edinburgh, EH3 5DQ

Revision History

Version	Date	Authored	Reviewed	Approved	Notes
1.0	2021-09-08	J Hudson	Dr M Forup	R King	Final for issue

© Copyright 2021 ITPE. The concepts and information contained in this document are the property of Energised Environments Limited, ITPE Ltd and Xero Energy Limited, trading as ITPEnergised. Use or copying of this document in whole or in part without the written permission of ITPEnergised companies constitutes an infringement of copyright unless otherwise expressly agreed by contract.

Limitation: This document has been prepared solely for the use of the Client and any party with whom a warranty agreement has been executed, or an assignment has been agreed. No other parties may rely on the contents of this document without written approval from ITPEnergised for which a charge may be applicable. ITPEnergised accepts no responsibility or liability for the consequences of use of this document for any purpose other than that for which it was commissioned, nor the use of this document by any third party with whom an agreement has not been executed.

The contents of this document are confidential to the intended recipient and may not be disclosed. This document may contain confidential information. If received in error, please delete it without making or distributing copies. Opinions and information that do not relate to the official business of Energised Environments Limited registered at 4th Floor, Centrum House, 108-114 Dundas Street, Edinburgh, EH3 5DQ or ITPE Ltd., registered at St. Brandon's House 29 Great George Street, Bristol BS1 5QT, or Xero Energy Limited, registered at 60 Elliot Street Glasgow, G3 8DZ trading as ITPEnergised, are not endorsed by the company or companies.



Erebus NVC Survey Report

Jon Hudson Ecological Consultancy

June 2021

Contents

1. Executive Summary	2
2. Introduction and Background	2
3. Methodology	4
4. Results	6
5. Evaluation	14
6. Figures - NVC Survey Result	17
7. References	26
8. Appendix 1 Quadrat Data	27

List of Figures

Figure 1: Survey area (red line)	3
Figure 2: West Angle Bay area	17
Figure 3: Detail of maritime communities at West Angle Bay area	18
Figure 4: South of Hubberton area	19
Figure 5: West of Kilpaison Burrows area	20
Figure 6: Kilpaison Burrows area	21
Figure 7: Neath / Wogaston / Hoplass area	22
Figure 8: Lambeeth area	23
Figure 9: Power Station area	24
Figure 10: Quadrat locations	25

List of Tables

Table 1 Summary of NVC Communities present	6
Table 2 Evaluation of the conservation importance of the NVC communities present	14

1. Executive Summary

Survey protocol followed standard NVC survey procedure as described by Rodwell (1991, 1992, 1995 & 2000) and vegetation was mapped onto aerial photographs at a scale of 1:5000.

All vegetation (apart from ryegrass leys and arable fields) within the survey area (see Figure 1) was mapped. However, due to a combination of a lack of access permission, impenetrable scrub and/or steep and dangerous slopes/cliff faces, it was not possible to access some areas. In such instances, scanning through binoculars was relied upon to assign vegetation communities.

The NVC survey encompassed a total site area of approximately 650ha. With a total of 191 polygons mapped to sub-community (occasionally community) level. Mosaics were not mapped but any associated vegetation communities within polygons are noted and an indication of their relative proportions given. A total of 20 NVC communities were recorded.

A number of NVC communities of conservation importance occur within the survey area especially the maritime cliff and crevice and grassland communities at West Angle Bay and the sand dune communities at Kilpaison Burrows (see Figures 2-8). Many of the NVC communities identified during the survey correspond to UK Priority Habitats and Section 7 habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales (see Table 2).

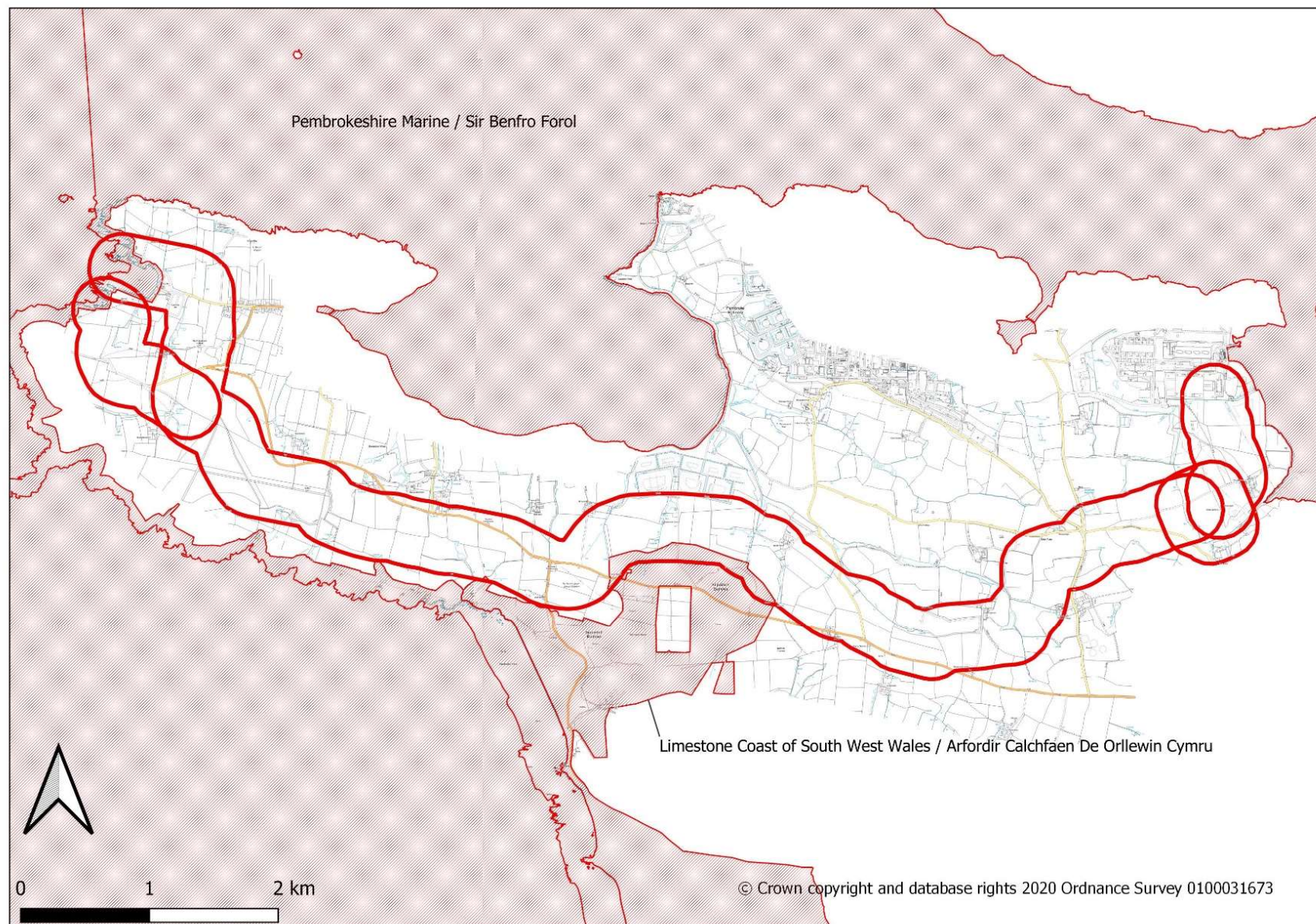
2. Introduction and Background

A Preliminary Ecological Assessment (PEA) was undertaken in July 2020 (see “Erebus Project: Preliminary Ecological Assessment of potential cable routes and substation locations (the “Site”) near Angle and Rhoscrowther, Pembrokeshire”, Hudson and Sutton, 2020). This report identified the vegetation and habitats present within the Survey Area, and, in broad terms, their potential to support protected species.

Jon Hudson Ecological Consultancy was commissioned by ITP Energised to carry out a Phase 2 National Vegetation Classification (NVC) Survey in support of an application to Pembrokeshire County Council for the same project. The Survey Area comprised several potential cable route options still being considered to a number of potential substation sites near Pembroke Power Station (see Figure 1). Information gathered in the preparation of this report was used to inform a final cable route that had the minimum potential for ecological impacts.

The NVC survey encompassed a total survey area of approximately 650ha. Within this area, all areas of “habitat” identified in the Phase 1 survey for the PEA were surveyed following the standard NVC survey procedure as described by Rodwell (1991, 1992, 1995 & 2000). The survey did not include the agriculturally improved ryegrass leys and arable fields identified in the PEA survey. A total of 191 polygons were mapped to sub-community (occasionally community) level and a total of 20 NVC communities were recorded.

Figure 1: Survey area (red line)



3. Methodology

3.1. Survey Protocol

The survey was undertaken by Jon Hudson MCIEEM and Matt Sutton on 23/05/2021, 24/05/2021, 25/05/2021, 16/06/2021. Survey protocol followed standard NVC survey procedure as described by Rodwell (1991, 1992, 1995 & 2000). In summary, this consisted of:

As per the guidance in the NVC handbook, there are “Acceptable economies in NVC survey”. It is possible to save time and survey effort within the general framework of NVC survey methodology by using one or all of these economies.

The first economy is whether to collect any NVC samples (quadrats) at all. The NVC Handbook states that “if vegetation types can be reliably identified without quadrats, then there may be little justification for such recording. Where the purpose of NVC survey is to identify vegetation communities only, experienced surveyors can make such identifications without recording any quadrat data at all.

The second economy, if samples are essential, then it may be sufficient to record qualitative (presence/absence) data for each sample, rather than Domin cover/abundance records. The third economy is to omit recording species that are difficult to identify. Usually, bryophytes and lichens - often cryptogams are not essential for identifying vegetation types.

As the purpose of the present survey is simply to identify and classify the vegetation communities present within the 250m buffer of the proposed cable route, it was agreed with the client that, in this case, it would be acceptable to apply all three economies and that quadrat data collection need only be used if required, where community identification was problematic. The survey was therefore carried out in the following manner.

1. In the field, homogenous stands of vegetation were identified and delimited.
2. NVC keys, floristic tables and descriptive texts (Rodwell, 1991, 1992, 1995 & 2000) were utilised to assign these homogenous stands of vegetation to the relevant NVC vegetation communities in the field. Which were then mapped onto aerial photographs.
3. In a limited number of cases, further validation was achieved by the collection of standard 2m x 2m quadrats. Quadrats were located using a hand-held GPS unit to within a 10-figure grid reference. Quadrats were recorded in areas of homogeneous vegetation to the eye in its floristics (species composition) and physiognomy (structure, including the patterned arrangement of species and vertical layering). Data was collected using the Domin scale.
4. Quadrat data were analyzed against the NVC keys, floristic tables and descriptive text and was run through the TABLEFIT programme (Hill 1996) to ensure that the surveyors had not overlooked any possible community types and to assist with analysis.

5. In the majority of cases, stands of vegetation were assigned to sub-community level. However, in some instances due to the nature of the vegetation (or its accessibility), it was only possible or desirable to assign to community level. Some stands of vegetation were modified through enrichment, disturbance, poaching, heavy sheep grazing and were not always assigned to sub-communities. In general, assignation to sub-community level was not attempted for MG6 *Lolium perenne* - *Cynosurus cristatus* grassland except where more species-rich stands were present. Scrub communities were not mapped to sub-community level as these were often difficult to sample and generally species-poor.
6. Vegetation communities that were not a close match to any published NVC community were found to be present in the survey area. Where vegetation communities could not be comfortably placed within the NVC framework, they are described and, where possible, assigned to the nearest fit or to the community they appear to be derived from in the cases where they appear to be modified variants of established communities. These communities are often species-poor and/or dominated by just a few species and lack certain key indicator species that would permit referral to an established NVC community.
7. Rye Grass *Lolium perenne* leys and arable fields were not mapped.

3.2. Mapping Protocol

3.2.1. Mapping

Vegetation was mapped in the field onto ortho-rectified aerial photographs, at a scale of 1:5000. Digitisation of data and survey maps was carried out using OS MasterMap data in QGIS software.

3.2.2. Digitising

Digitisation of vegetation polygons, quadrats, target notes and survey boundaries was carried out using QGIS software. The polygons were digitized onto an O.S. MasterMap using overlaid aerial imagery to help delineate stands of different vegetation types. All the vegetation polygons are coloured to create the finished NVC maps provided in this report (see maps 2-8). The legend on each map provides a key to the communities shown.

3.3. Limitations

Due to a combination of the nature of the vegetation (impenetrable gorse (*Ulex europaeus*), blackthorn (*Prunus spinosa*) or bramble (*Rubus fruticosus* agg.) dominated scrub) and terrain (steep and dangerous slopes above vertical cliffs) it was not possible to access some areas. Furthermore, in some areas, access permission had not been granted. In the above instances scanning through binoculars was relied upon to assign vegetation to NVC communities where this was possible. Where access permission was not obtained, this has been delineated on the survey maps.

This NVC survey does not constitute a comprehensive survey for higher plant or bryophyte species

protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended), invasive plant species or a full botanical survey. NVC survey methodology is based on taking samples of vegetation, not surveying all the vegetation in every stand. The NVC survey was undertaken in June, therefore some plant species will have been under-recorded. However, this limitation is unlikely to affect the overall determination of the plant communities found under the NVC system.

4. Results

The NVC survey encompassed a total site area of 650ha. This comprised a total of 191 polygons mapped to sub-community (occasionally community) level. A total of 20 NVC communities were recorded. These are detailed in Table 1:

Table 1 Summary of NVC Communities present

NVC Community	Sub-community	Extent (ha)
Maritime Communities		
MC1 <i>Crithmum maritimum</i> - <i>Spergularia rupicola</i> maritime rock-crevicecommunity	MC1a Typical sub-community	0.03
MC8 <i>Festuca rubra</i> - <i>Armeria maritima</i> maritime grassland	MC8a Typical sub-community	0.03
	MC8f <i>Anthyllis vulneraria</i> sub-community	0.04
MC9 <i>Festa rubra</i> - <i>Holcuslanatus</i> maritime grassland	MC9e <i>Anthoxanthum odoratum</i> sub-community	0.01
MC12a <i>Festa rubra</i> - <i>Hyacinthoides non-scripta</i> maritime bluebell community	MC12a <i>Ranunculus ficaria</i> sub-community	0.08
SD8 <i>Festuca rubra</i>-<i>Galium verum</i> fixed dune grassland		
	SD8a Typical sub-community	0.29
	SD8b <i>Luzula campestris</i> sub-community	6.06
SD9 <i>Ammophila arenaria</i>-<i>Arrhenatherum elatius</i> dune grassland	SD9a Typical sub-community	2.28
Grassland Communities		
MG1 <i>Arrhenatherum elatius</i> grassland	MG1a <i>Festuca rubra</i> sub-community	2.53
	Other MG1 type communities are present on the Kilpaison burrows are which do not fit well the published NVC floristic tables. These intergrade with fixed dune grassland communities	

NVC Community	Sub-community	Extent (ha)
MG5 <i>Cynosurus cristatus</i> - <i>Centaurea nigra</i> grassland	MG5a <i>Lathyrus pratensis</i> sub-community	1.66
	MG5c <i>Danthonia decumbens</i> sub-community	0.02
MG6 <i>Lolium perenne</i> - <i>Cynosurus cristatus</i> grassland	MG6b <i>Anthoxanthum odoratum</i> sub-community. Other species-poor stands are not mapped to sub-community level	23.71
Mire Communities		
M23 <i>Juncus effusus/acutiflorus</i>-<i>Galium palustre</i> rush-pasture	M23a <i>Juncus acutiflorus</i> sub-community	1.94
	M23b <i>Juncus effusus</i> sub-community	1.87
M25 <i>Molinia caerulea</i> - <i>Potentilla erecta</i> mire	M25c <i>Angelica sylvestris</i> sub-community	0.18
	Some small species-poor stands were present but not referable to sub-community level	0.08
Woodland and Scrub Communities		
W1 <i>Salix cinerea</i> – <i>Galium palustre</i> woodland	No sub-communities in the NVC	5.02
W6 <i>Alnus glutinosa</i>-<i>Urtica dioica</i> woodland	W6d <i>Sambucus nigra</i> sub-community	4.24
W9 <i>Fraxinus excelsior</i>-<i>Sorbus aucuparia</i>-<i>Mercurialis perennis</i> woodland	W9a Typical sub-community	2.82
W21 <i>Crataegus monogyna</i> – <i>Hedera helix</i> scrub	Not mapped to sub-community level	8.27
W22 <i>Prunus spinosa</i> - <i>Rubus fruticosus</i> scrub	Not mapped to sub-community level	5.88
W23 <i>Ulex europaeus</i> - <i>Rubus fruticosus</i> scrub	Not mapped to sub-community level	0.65
W24 <i>Rubus fruticosus</i> - <i>Holcus lanatus</i> scrub	Not mapped to sub-community level	7.89
W25 <i>Pteridium aquilinum</i> - <i>Rubus fruticosus</i> scrub	Not mapped to sub-community level	1.95
Additional vegetation types which cannot be clearly fitted within the NVC framework		

NVC Community	Sub-community	Extent (ha)
Other wet dune vegetation	Dune slack/flush vegetation dominated by <i>Equisetum palustre</i> . Does not conform to any published NVC community	0.4
Other mire vegetation	Disturbed marsh vegetation probably derived from M22. Heavy winter grazing has modified the community such that it does not conform to any published NVC communities	0.12
<i>Oenanthe crocata</i> dominated vegetation	<i>Oenanthe crocata</i> dominated vegetation with <i>Juncus effusus</i> , <i>Filipendula ulmaria</i> , <i>Carex nigra</i> and <i>Centaurea nigra</i> . Does not conform to any published NVC community	0.44
Other neutral grassland	<i>Mercurialis perennis</i> dominated grassland. Remnant woodland/scrub vegetation? Does not conform to any published NVC community	0.03
Other neutral grassland	<i>Dactylis glomerata</i> & <i>Holcus lanatus</i> dominated grassland with almost no other associated species. Does not conform to any published NVC community	0.01
Other neutral grassland	<i>Holcus lanatus</i> , <i>Schedonorus pratensis</i> , <i>Ranunculus repens</i> & <i>Argentina (Potentilla) anserina</i> dominated vegetation. Does not conform to any published NVC community	0.16
Other neutral grassland	Tussocky <i>Festuca rubra</i> sward with <i>Carex nigra</i> <i>Carex flacca</i> , <i>Filipendula ulmaria</i> , <i>Argentina anserina</i> , <i>Ranunculus acris</i> . Does not conform to any published NVC community	0.14

4.1. Community Descriptions

When determining community types, and especially with regard to sub-communities, emphasis has been placed on the suite of species present, rather than the presence or absence of individual species. Consequently, in some instances, even though community/sub-community constants may not have been recorded or recorded with less frequency/abundance than published NVC tables, vegetation has been assigned to the community/sub-community that best represents the essential

ecological character of that community type. This has been achieved through a combination of reference to NVC texts and professional judgement. Essentially, therefore, the presence or absence of one or two typical species has been of secondary consideration in assigning vegetation to communities/sub-communities. In a limited number of instances, where vegetation was a particularly poor fit to any NVC community, further validation was achieved by running data through the TABLEFIT programme (Hill 1996). However, in no cases were such derived results used as definitive.

4.1.1. Maritime Communities

The maritime cliff and crevice and grassland communities are of small extent, occurring on three small headlands on the south side of West Angle Bay. Larger extents of maritime habitats (sand dunes) are present at Kilpaison Burrows. Small areas of cliff and crevice vegetation and maritime grassland were mapped on these rocky promontories. The maritime grassland communities here fall within the Angle Peninsula Coast SSSI and the Limestone Coast of South West Wales / Arfordir Calchfaen De Orllewin Cymru Special Area of Conservation and are therefore important in a national and international context. These grasslands are open to the adjacent semi-improved pasture and are somewhat impoverished and poached in places where they are accessible to livestock. The steeper slopes that are ungrazed (but maintained by droughting and exposure) are of higher quality with species such as red fescue *Festuca rubra*, Thrift *Armeria maritima*, kidney vetch *Anthyllis vulneraria* and saw wort *Serratula tinctoria* present.

The maritime communities here can be broadly separated into cliff and crevice communities and grassland communities. The small extent and steep and dangerous situations in which the maritime cliff and crevice communities occur rendered close scrutiny impossible. Consequently, community description was reliant on scanning through binoculars, and mapping and classification to sub-community level was not possible. However, the main community was assessed as **MC1** *Crithmum maritimum* - *Spergularia rupicola* maritime rock-crevice community. The **MC5** *Armeria maritima*-*Cerastium diffusum* maritime therophyte community is absent on any of the accessible parts of the cliff edges (which are generally sheltered and not droughted) but is likely to be present on some of the dry and eroding areas that are too dangerous to access.

Maritime grassland communities were mostly represented by **MC8** *Festuca rubra* - *Armeria maritima* maritime grassland (**MC8a** *Festuca rubra* - *Armeria maritima* sub-community & **MC8f** *Anthyllis vulneraria* sub-community), **MC9** *Festuca rubra* - *Holcus lanatus* maritime grassland (**MC9e** *Anthoxanthum odoratum* sub-community) and **MC12** *Festuca rubra* - *Hyacinthoides non-scripta* maritime grassland (**MC12a** *Ranunculus ficaria* sub-community) which was present at the tops of sea-cliffs, in shallow depressions or gullies on relatively deeper soils.

Sand dune communities are extensive around Kilpaison Burrows. These comprise a large expanse of fixed dune grassland with some patches of scrub, neutral grassland (**MG1**) and wet flushes. The dune grasslands are inland and are very stabilised. They lack mobile dune communities and the **SD19** *Phleum arenarium*-*Arenaria serpyllifolia* dune annual community. The dunes are winter grazed and silage feeding occurs extensively at the northern edge of the site. Some of the dune communities appear to have been modified by this – for example much of the **SD9a** *Ammophila arenaria*-*Arrhenatherum elatius* dune grassland vegetation is of low quality and grades into stands of **MG1**. (Appendix 1, Quadrat 6). These two types have few differentials and are not easy to separate. Furthermore, all

areas where dune slack vegetation would be expected are covered with rank swards of **SD9/MG1** or **OV25** *Urtica dioica*-*Cirsium arvense* community - a rank grassy/weedy sward that develops around areas where the cattle feed or gather. There are no recognizable NVC dune slack communities present, these having become enriched and dominated by grasses (*Agrostis stolonifera*) etc. and *Argentina* (*Potentilla*) *anserina*. Areas of flush and streams are similarly modified - marsh vegetation on the western section of Kilpaison Burrows occurs beside a stream and flush complex. Heavy winter grazing appears to have mobilised the sand and modified this community such that it cannot be comfortably placed in any established NVC community.

SD8a *Festuca rubra*-*Galium verum* fixed dune grassland, *Luzula campestris* sub-community occurs on dune ridges. It is somewhat atypical in its low frequency of *Ammophila arenaria*.

SD8b *Festuca rubra*-*Galium verum* fixed dune grassland, typical sub-community dominates large parts of the dune system. This is fairly typical of the NVC community type although *Ammophila arenaria* occurs only very rarely and *Sanguisorba minor* can be dominant in places. A short and fairly open stand of **SD8b** occurs on the floor of an old sand quarry area (Appendix 1, Quadrat 7). This stand is more species-rich with the southern marsh orchid *Dactylorhiza praetermissa*, pyramidal orchid *Anacamptis pyramidalis* and bee orchid *Ophrys apifera*. Some stands of **SD8a** approach **SD8e** but lack meadow rue *Thalictrum minus*.

Much of the lower edge of the dune system at its Northern boundary is so modified and enriched that it would benefit from having the nutrient-enriched layer of sand removed. This could allow the opportunity to restore the dunes and create slacks and flush systems. If the cable route were to affect this part of the dunes there could be opportunities for habitat restoration.

4.1.2. Grassland Communities

Among the maritime grasslands, small patches of neutral grassland showing no maritime influence also occur. These were classified as **MG5** *Cynosurus cristatus*-*Centaurea nigra* grassland, *Danthonia decumbens* sub-community. Stands of **MG1** *Arrhenatherum elatius* grassland (**MG1a** *Arrhenatherum elatius* grassland, *Festuca rubra* sub-community) also occupy some of the coastal slopes as does a patch of similar grassland that is dominated by the (usually) woodland forb, *Mercurialis perennis* (see section 4.1.5).

The vast majority of the neutral grasslands within the survey area were found inland and associated with varying degrees of agricultural activity.

MG1 *Arrhenatherum elatius* grassland was a community type most frequently encountered as peripheral to agricultural modification, usually **MG1a** *Arrhenatherum elatius* grassland, *Festuca rubra* sub-community. Other **MG1** communities are present on Kilpaison burrows which do not fit well to the published NVC floristic tables. These intergrade with the fixed dune grassland communities here. In this situation, it appears that the feeding and overwintering of cattle and the associated poaching has modified the **SD9** to the point where the two vegetation types become difficult to separate. This situation is leading to a loss of fixed dune grassland within the Limestone Coast of South West Wales / Arfordir Calchfaen De Orllewin Cymru Special Area of Conservation. Small patches of **MG1** also appear on road verges and other lightly managed areas.

MG5 *Cynosurus cristatus* - *Centaurea nigra* grassland was found in several locations. Stands of this vegetation type were usually small and found as patches within enclosed fields of **MG6** *Lolium perenne* - *Cynosurus cristatus* grassland. The bulk of the **MG5** conformed to **MG5a** *Lathyrus pratensis* sub-community. The largest stand of this community is present on the old runways south of Hubberton Farm (Appendix 1, Quadrat 3). As noted above, tiny areas of **MG5c** *Danthonia decumbens* sub-community are also present on the cliff tops near West Angle Bay (Appendix 1, Quadrat 1).

MG6 *Lolium perenne* - *Cynosurus cristatus* grassland was found in association with low levels of agricultural improvement scattered throughout the survey area. These grasslands are variable in their floristics, ranging from very species-poor stands (which were not mapped to sub-community level) through to some stands of **MG6b** *Lolium perenne*-*Cynosurus cristatus* grassland, *Anthoxanthum odoratum* sub-community which were found to be reasonably species-rich. The old runways south of Hubberton Farm have areas of sheep grazed **MG6** of varying quality (mostly species-poor) but with some more species-rich areas and even fragmentary patches of **MG5**. The largest stands of species-rich **MG6b** occur in the valley running south-east down to Neath Bridge. Here the community is species-rich with some **MG5** indicators including *Centaurea nigra* & *Lathyrus pratensis*). *Lotus corniculatus* is absent but *L. pedunculatus* present. These fields are of high conservation value for their potential for reversion to **MG5**. Further up this valley (to the south of Hoplass Solar Farm) is an area of damp species-rich **MG6b**. The occasional presence of herbs such as greater birds-foot trefoil *Lotus pedunculatus*, water mint *Mentha aquatica* and fleabane *Pulicaris dysenterica* suggest that this vegetation may have been derived from marshy grassland through drainage and improvement.

4.1.3. Mire Communities

Mire communities were a relatively rarely recorded broad community group within the survey area. They were of limited extent, scattered in occurrence and are typically associated with seepage lines and shallow depressions/valleys.

M23 *Juncus effusus/acutiflorus*-*Galium palustre* rush-pasture (**M23a** *Juncus effusus/acutiflorus*-*Galium palustre* rush-pasture, (Appendix 1, Quadrat 9). *Juncus acutiflorus* sub-community and **M23b** *Juncus effusus/acutiflorus*-*Galium palustre* rush-pasture, *Juncus effusus* sub-community) were both noted. These varied from tiny, isolated fragments around patches of scrub in small stream valleys to larger more species-rich stands where species such as southern marsh orchid *Dactylorhiza praetermissa* were occasional.

M25 *Molinia caerulea* - *Potentilla erecta* mire occurred in three widely scattered locations, occurring as small patches. The largest stand of this vegetation type was present on Kilpaison Burrows. Here an area of purple moor grass *Molinia caerulea* dominated vegetation with frequent/abundant black bog rush *Schoenus nigricans* is present in a shallow depression (Appendix 1, Quadrat 4). The vegetation is comprised of a large number of approximately 50 cm high tussocks (most of which are a mix of *Molinia caerulea* & *Schoenus nigricans*) with a dense network of poached runnels of almost bare sandy peat between them. Despite the high cover of *Schoenus nigricans*, the vegetation is not referable to **M13** *Schoenus nigricans*-*Juncus subnodulosus* mire. The vegetation is now best perhaps referred to **M25c** but may have been derived from **M13** or **M24** *Molinia caerulea*-*Cirsium dissectum* fen-meadow with heavy winter cattle grazing and feeding leading to a loss of some of the

community constants of those vegetation types. The remaining two stands of **M25** were both very small and species-poor with a strong dominance of *Molinia caerulea* and insufficient preferential species to allow reference to any sub-community.

4.1.4. Woodland and Scrub Communities

Scrub communities were collectively the most abundant community type in the survey area. The scrub communities broadly conformed to NVC types for **W21** *Crataegus monogyna*-*Hedera helix* scrub, **W22** *Prunus spinosa*-*Rubus fruticosus* scrub, **W23** *Ulex europaeus*-*Rubus fruticosus* scrub, **W24** *Rubus fruticosus*-*Holcus lanatus* scrub & **W25** *Pteridium aquilinum*-*Rubus fruticosus* scrub.

Woodland communities encountered included **W1** *Salix cinerea* – *Galium palustre* woodland (no sub-communities) and **W6** *Alnus glutinosa*-*Urtica dioica* woodland and **W9** *Fraxinus excelsior*-*Sorbus aucuparia*-*Mercurialis perennis* woodland. The latter two woodland vegetation types were each represented by a single sub-community type (**W6d** *Alnus glutinosa*-*Urtica dioica* woodland, *Sambucus nigra* sub-community & **W9a** *Fraxinus excelsior*-*Sorbus aucuparia*-*Mercurialis perennis* woodland, typical sub-community).

W1 *Salix cinerea* – *Galium palustre* woodland is the most widespread woodland community in the survey area and occurs as scattered stands associated with a wide range of habitats. No sub-communities are recognized within the NVC framework.

W6d *Alnus glutinosa*-*Urtica dioica* woodland, *Sambucus nigra* sub-community is restricted to two areas of woodland to the area south-west of Angle village. However, one of these stands was only cautiously assigned to this sub-community due to heavy grazing having removed much of the shrub and field layers, making sub-community placement uncertain.

W9a *Fraxinus excelsior*-*Sorbus aucuparia*-*Mercurialis perennis* woodland, typical sub-community is reasonably widespread within the survey area but again the largest stand (West of Angle village) was only cautiously assigned to this sub-community due to heavy grazing having removed much of the shrub and field layers, making sub-community placement uncertain.

W6 *Alnus glutinosa*-*Urtica dioica* woodland and **W9** *Fraxinus excelsior*-*Sorbus aucuparia*-*Mercurialis perennis* woodland occur together in the Goldborough Road valley. It was not possible to sample and map these with any accuracy due to the dense ground, field and shrub layers. However, the **W6** generally occurs on the on small river floodplain with **W9** on the steeper valley slopes, intermixed with patches of **W25** and other scrub communities.

4.1.5. Additional vegetation types which cannot be clearly fitted within the NVC framework

Vegetation communities that were not a close match to any published NVC community were found to be present in the survey area. These are described and where possible assigned to the nearest community fit that seems appropriate. A note is also made where it is felt a stand of vegetation may

have been derived from a different community. The following vegetation types listed below did not key out to or appear to be a reasonable fit to any recognized NVC community type. Quadrats were placed in the more species-rich vegetation types and the data run through the Tablefit program. Tablefit produced “Very poor” or “Poor” fits to any NVC community for all of the following vegetation types. It appears that these vegetation types therefore cannot be currently accommodated with the existing NVC framework.

Other wet dune vegetation. Dune slack/flush vegetation at Kilpaison Burrows (Appendix 1, Quadrat 8). Dominated by *Equisetum palustre*. Does not conform to any published NVC community.

Other mire vegetation. Disturbed marsh vegetation at Kilpaison Burrows occurs in a stream and flush complex (Appendix 1, Quadrat 5). Heavy winter grazing appears to have modified the community and mobilised the sand such that it does not conform to any published NVC community. Superficially similar-looking habitats in undisturbed parts of the adjacent dunes systems support stands of **M22** *Juncus subnodulosus*-*Cirsium palustre* fen-meadow and/or **M24** *Molinia caerulea*-*Cirsium dissectum* fen-meadow from which this vegetation may be derived. Again, in other parts of the dune systems that form part of the Limestone Coast of South West Wales Special Area of Conservation, similar habitats support dense bryophyte mats and are a locus for rare species such as petalwort *Petalophyllum ralfsii*. At Kilpaison bryophytes are almost absent. A specific search was made for Petalwort but none was found and no suitable habitat was noted.

***Oenanthe crocata* dominated vegetation.** (Appendix 1, Quadrat 10). Hemlock water dropwort *Oenanthe crocata* dominated vegetation with soft rush *Juncus effusus*, meadowsweet *Filipendula ulmaria*, common sedge *Carex nigra* and knapweed *Centaurea nigra* frequent throughout. Does not conform to any published NVC community

Other neutral grassland. A rank and tussocky sward dominated by Yorkshire fog *Holcus lanatus*, meadow fescue *Schedonorus pratensis*, creeping buttercup *Ranunculus repens* & silverweed *Potentilla (Argentina) anserina* with few other associates. Does not fit any published NVC floristic tables.

Other neutral grassland. Tussocky red fescue *Festuca rubra* sward with *Carex nigra*, glaucous sedge *Carex flacca*, *Filipendula ulmaria*, *Argentina anserina* & meadow buttercup *Ranunculus acris*. Does not fit any published NVC floristic tables.

Other neutral grassland. Tussocky cocksfoot *Dactylis glomerata* & *Holcus lanatus* dominated grassland with almost no associates. Does not fit any published NVC floristic tables.

Other neutral grassland. (Appendix 1, Quadrat 2). Occupying an open area of coastal slope is a patch of grassland that is dominated by the (usually) woodland forb, dog’s mercury *Mercurialis perennis*. This stand may be a remnant of a woodland/scrub vegetation from which the tree cover has been lost but in which *M. perennis* survives under a canopy of tall grasses and bracken. Does not fit any published NVC floristic tables.

5. Evaluation

The habitats mapped during the present survey are evaluated for their conservation importance in Table 2 below. The NVC communities mapped during the survey are related to their corresponding “Priority Habitats”. Priority Habitats were prepared by the UK Biodiversity Group to classify the most threatened or declining semi-natural habitats in Britain. This list has been used to help draw up the statutory lists of “habitats of principle importance” for Wales. Under the Environment (Wales) Act 2016, a list of the “habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales” was drawn up under Section 7 of that act.

Table 2 Evaluation of the conservation importance of the NVC communities present

NVC Community	Priority Habitat/Section 7	Conservation Importance
Maritime Communities		
MC1 <i>Crithmum maritimum</i> - <i>Spergularia rupicola</i> maritime rock-crevice community	Maritime Cliff and Slope	High
MC8 <i>Festuca rubra</i> - <i>Armeria maritima</i> maritime grassland	Maritime Cliff and Slope	High
MC9 <i>Festa rubra</i> - <i>Holcuslanatus</i> maritime grassland	Maritime Cliff and Slope	High
MC12a <i>Festa rubra</i> - <i>Hyacinthoides non-scripta</i> maritime bluebell community	Maritime Cliff and Slope	High
SD8 <i>Festuca rubra</i>-<i>Galium verum</i> fixed dune grassland	Coastal Sand Dunes	High
SD9 <i>Ammophila arenaria</i>-<i>Arrhenatherum elatius</i> dune grassland	Coastal Sand Dunes	High
Grassland Communities		
MG1 <i>Arrhenatherum elatius</i> grassland	None	Low
MG5 <i>Cynosurus cristatus</i> - <i>Centaurea nigra</i> grassland	Lowland Meadow	High
MG6 <i>Lolium perenne</i> -<i>Cynosurus cristatus</i> grassland	None	Mostly low but species rich stands are High
Mire Communities		
M23 <i>Juncus effusus/acutiflorus</i>-<i>Galium palustre</i> rush-pasture	Purple Moor Grass and Rush Pastures	High

NVC Community	Priority Habitat/Section 7	Conservation Importance
M25 <i>Molinia caerulea</i> - <i>Potentilla erecta</i> mire	Purple Moor Grass and Rush Pastures	High
Woodland and Scrub Communities		
W1 <i>Salix cinerea</i> – <i>Galium palustre</i> woodland	Wet Woodland	High
W6 <i>Alnus glutinosa</i>-<i>Urtica dioica</i> woodland	Wet Woodland	High
W9	Lowland Mixed Deciduous Woodland	High
W21 <i>Crataegus monogyna</i> – <i>Hedera helix</i> scrub	None	Low
W22 <i>Prunus spinosa</i> - <i>Rubus fruticosus</i> scrub	Coastal stands = Maritime Cliff and Slope	High
W23 <i>Ulex europaeus</i> - <i>Rubus fruticosus</i> scrub	None	Low
W24 <i>Rubus fruticosus</i> - <i>Holcus lanatus</i> scrub	None	Low
W25 <i>Pteridium aquilinum</i> - <i>Rubus fruticosus</i> scrub	Coastal stands = Maritime Cliff and Slope	High
Additional vegetation types which cannot be clearly fitted within the NVC framework		
Other wet dune vegetation	Coastal Sand Dunes	Medium
Other mire vegetation	Possible Lowland Fen	Medium
<i>Oenanthe crocata</i> dominated vegetation	Possible Lowland Fen	Medium
Other neutral grassland	None	Low
Other neutral grassland	None	Low
Other neutral grassland	None	Low

NVC Community	Priority Habitat/Section 7	Conservation Importance
Other neutral grassland	None	Low

6. Figures - NVC Survey Result

Figure 2: West Angle Bay area

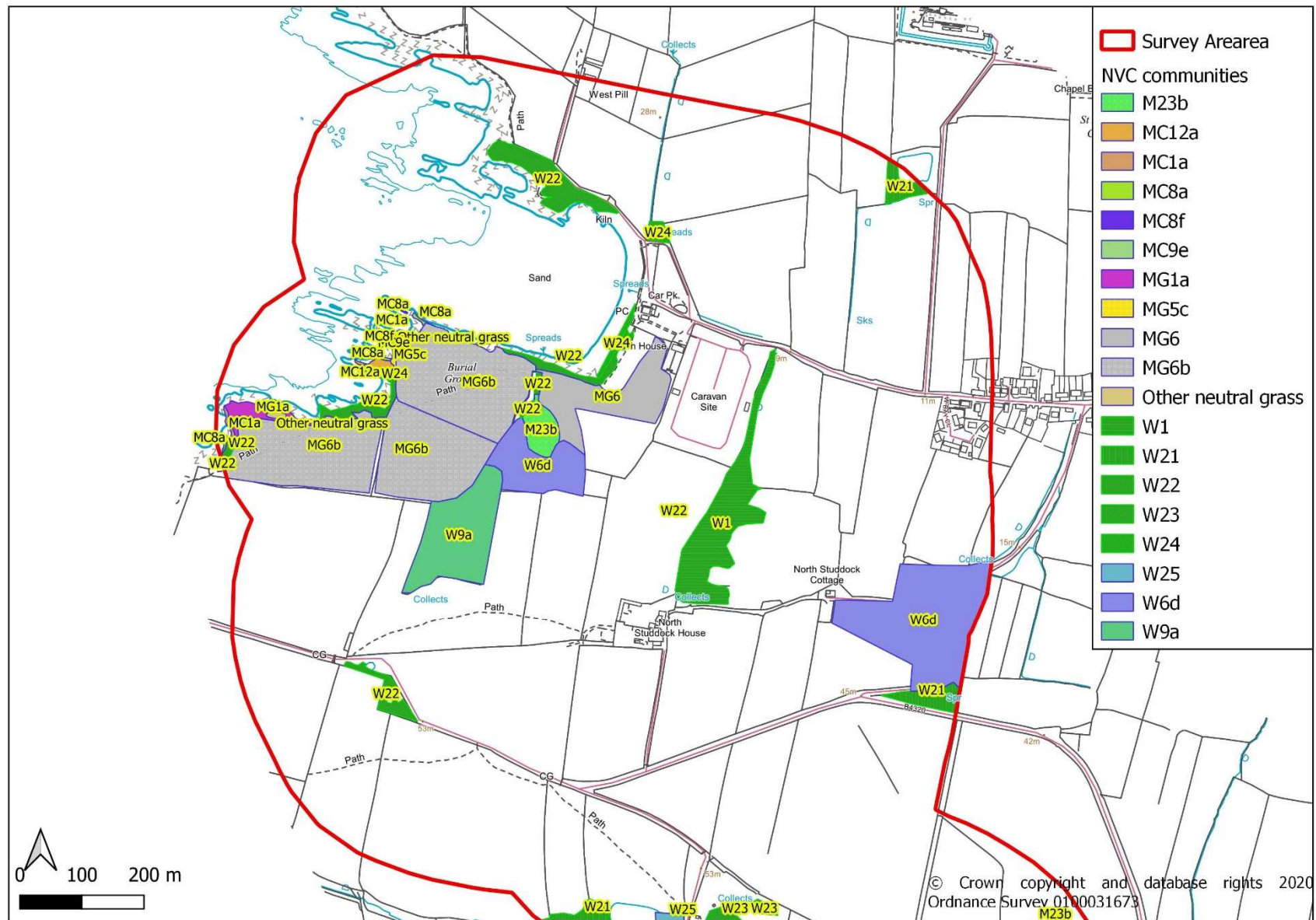


Figure 3: Detail of maritime communities at West Angle Bay area

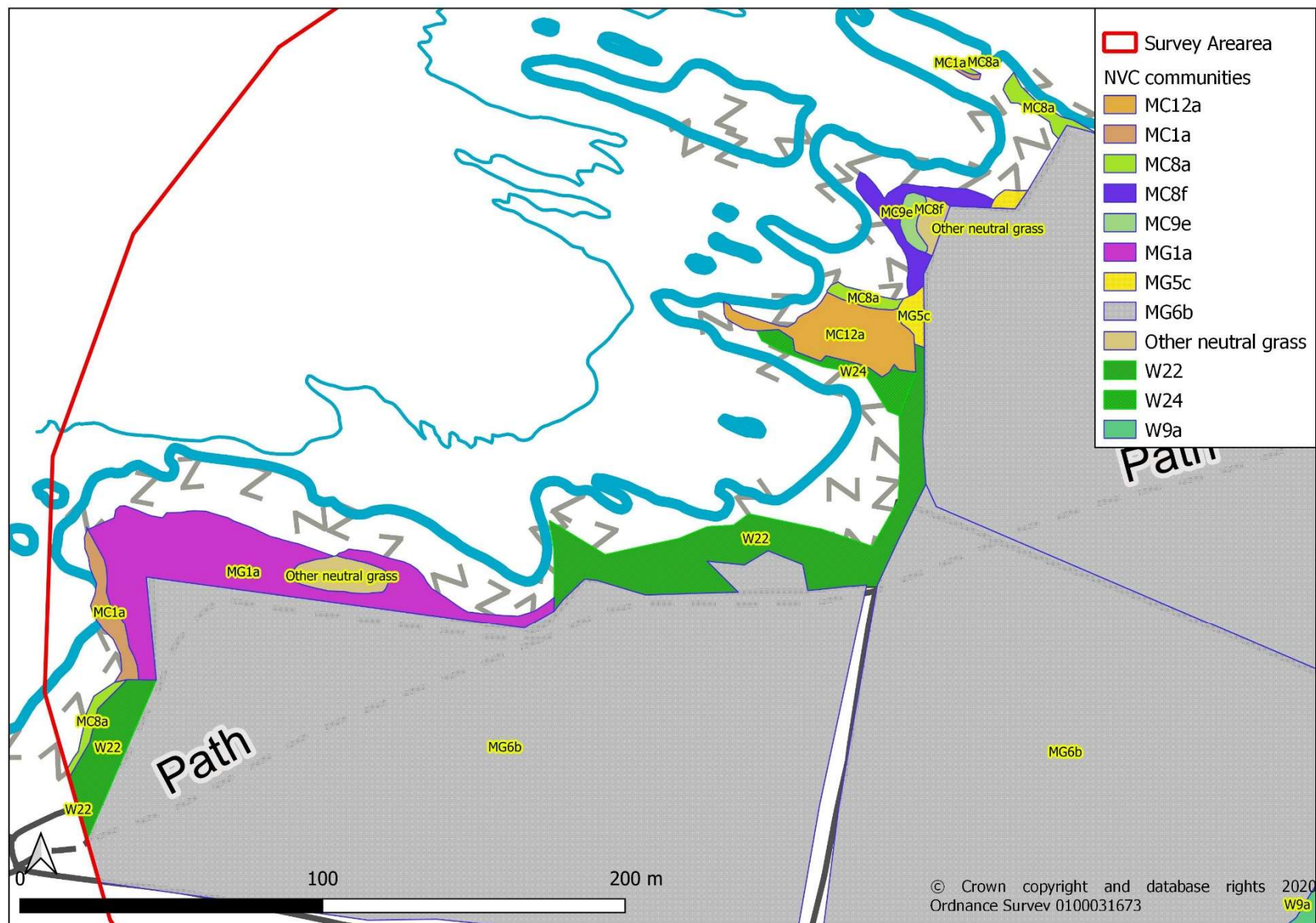
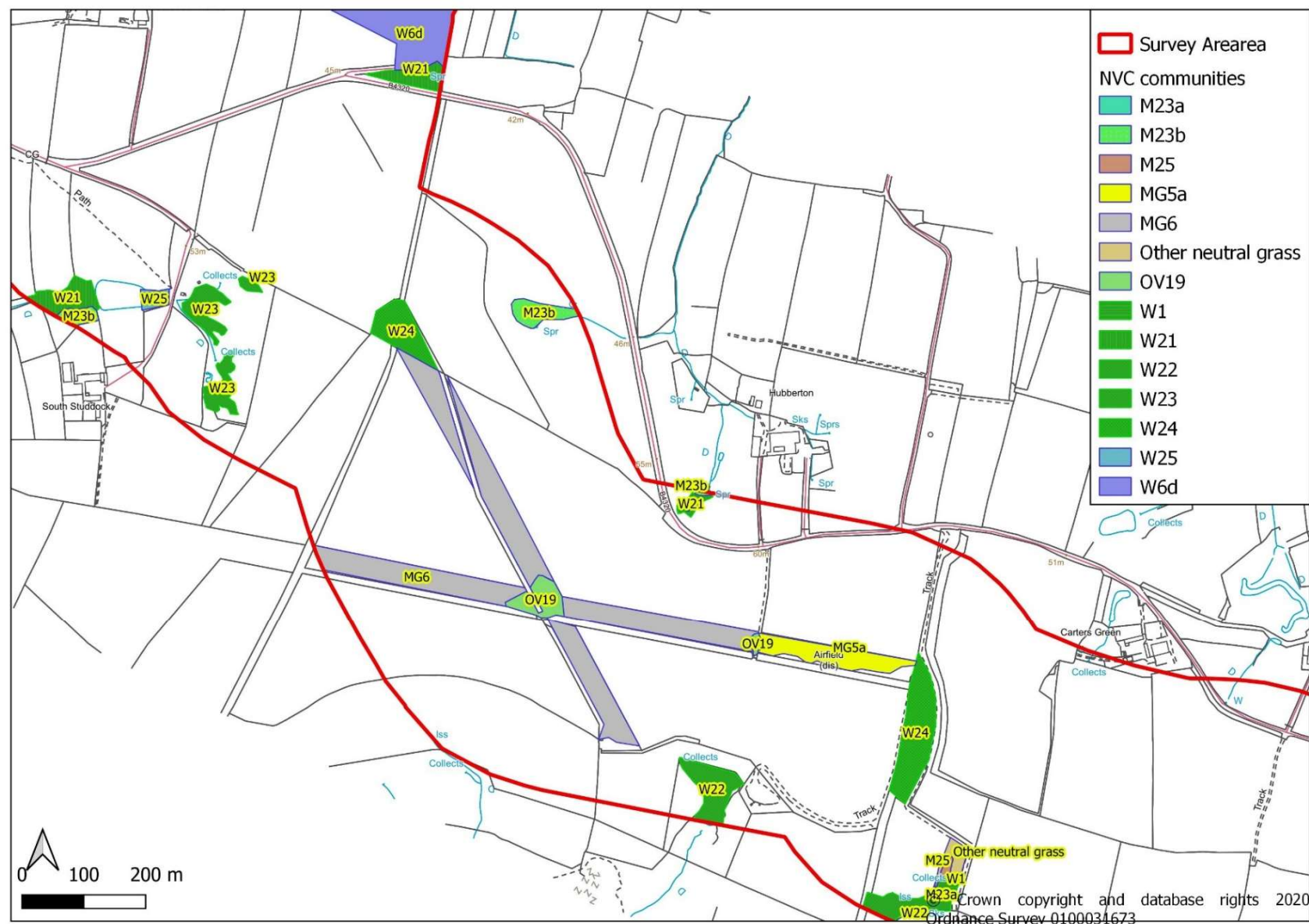
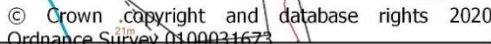


Figure 4: South of Hubberton area



20



21

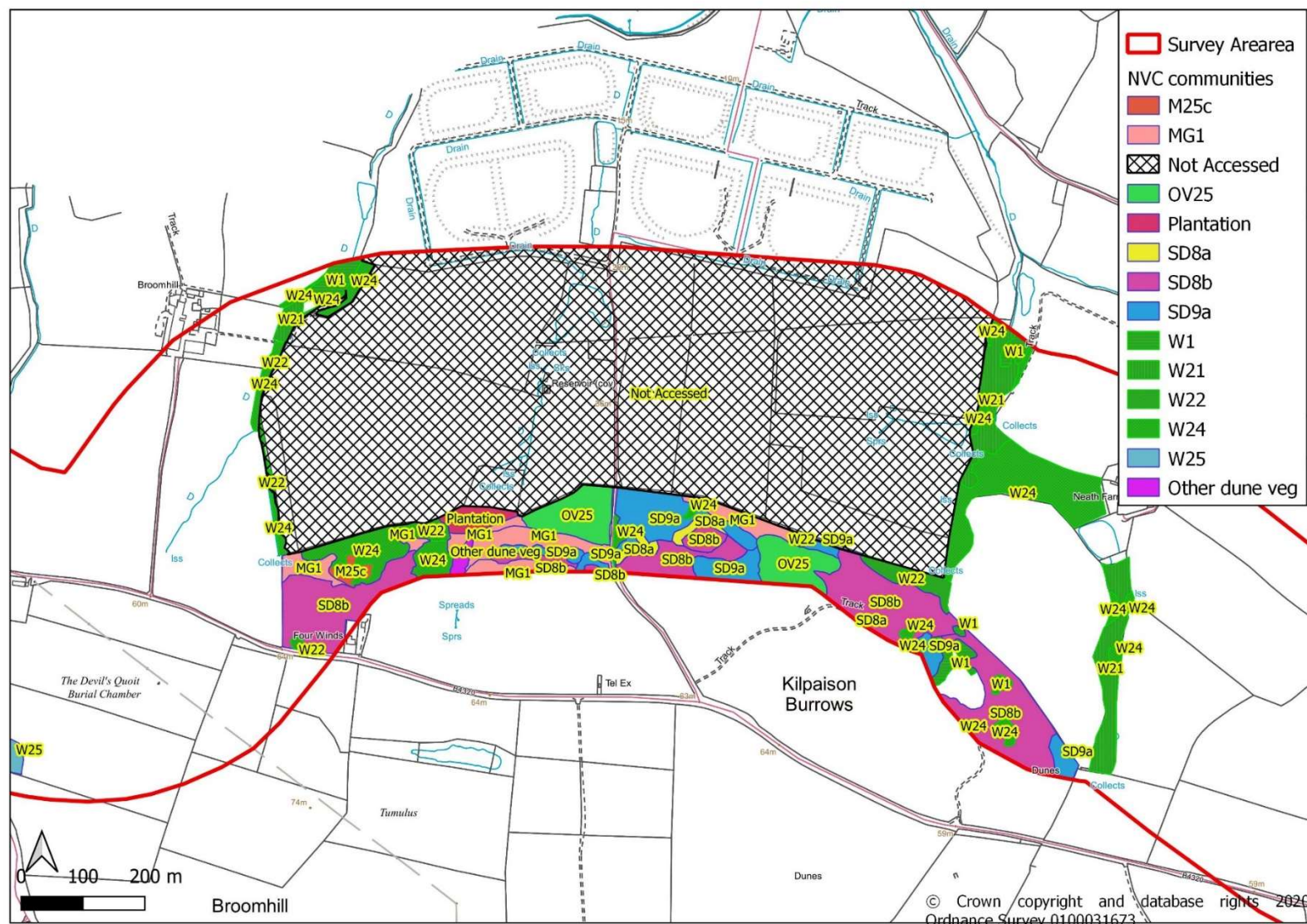


Figure 7: Neath / Wogaston / Hoplass area

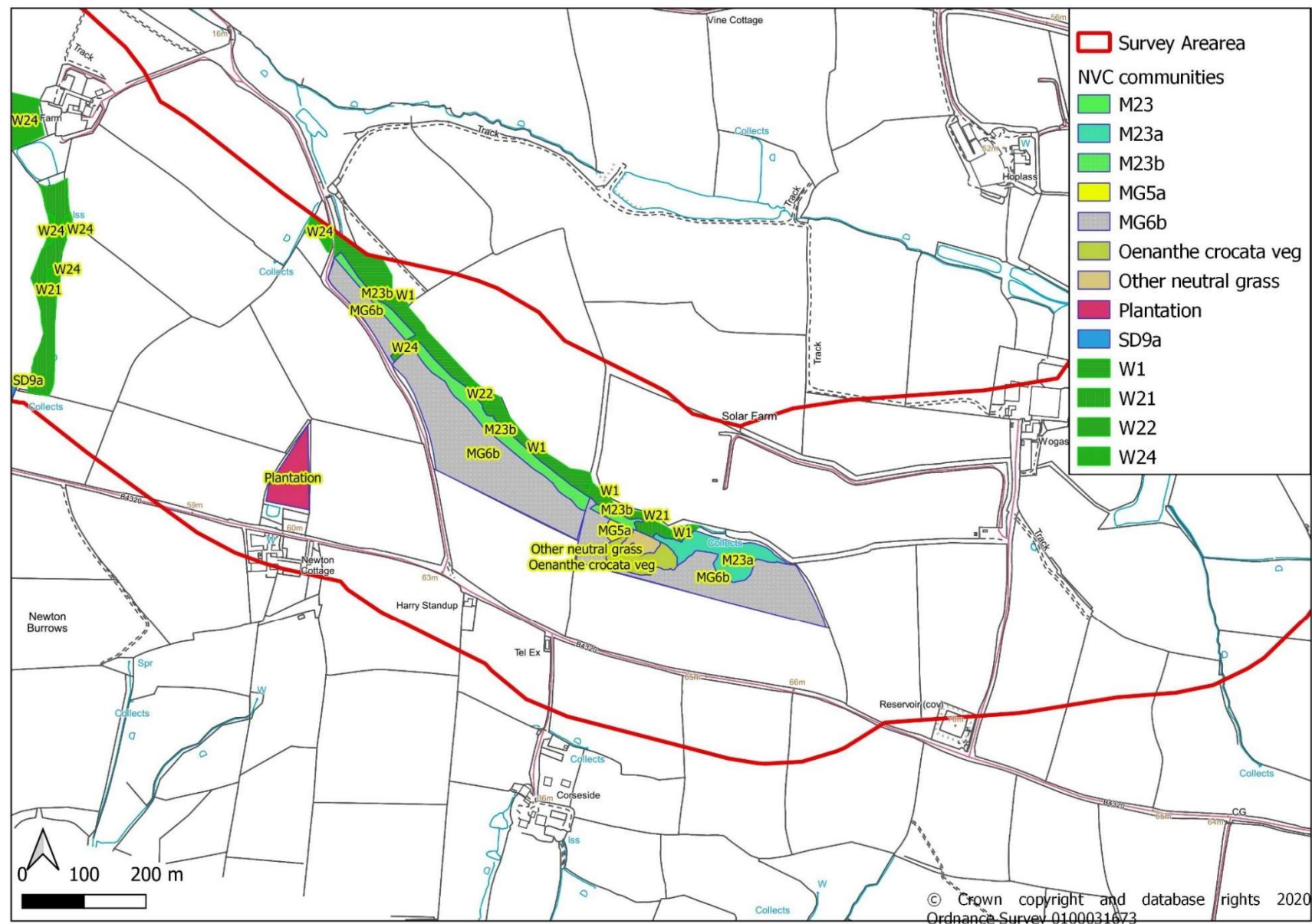
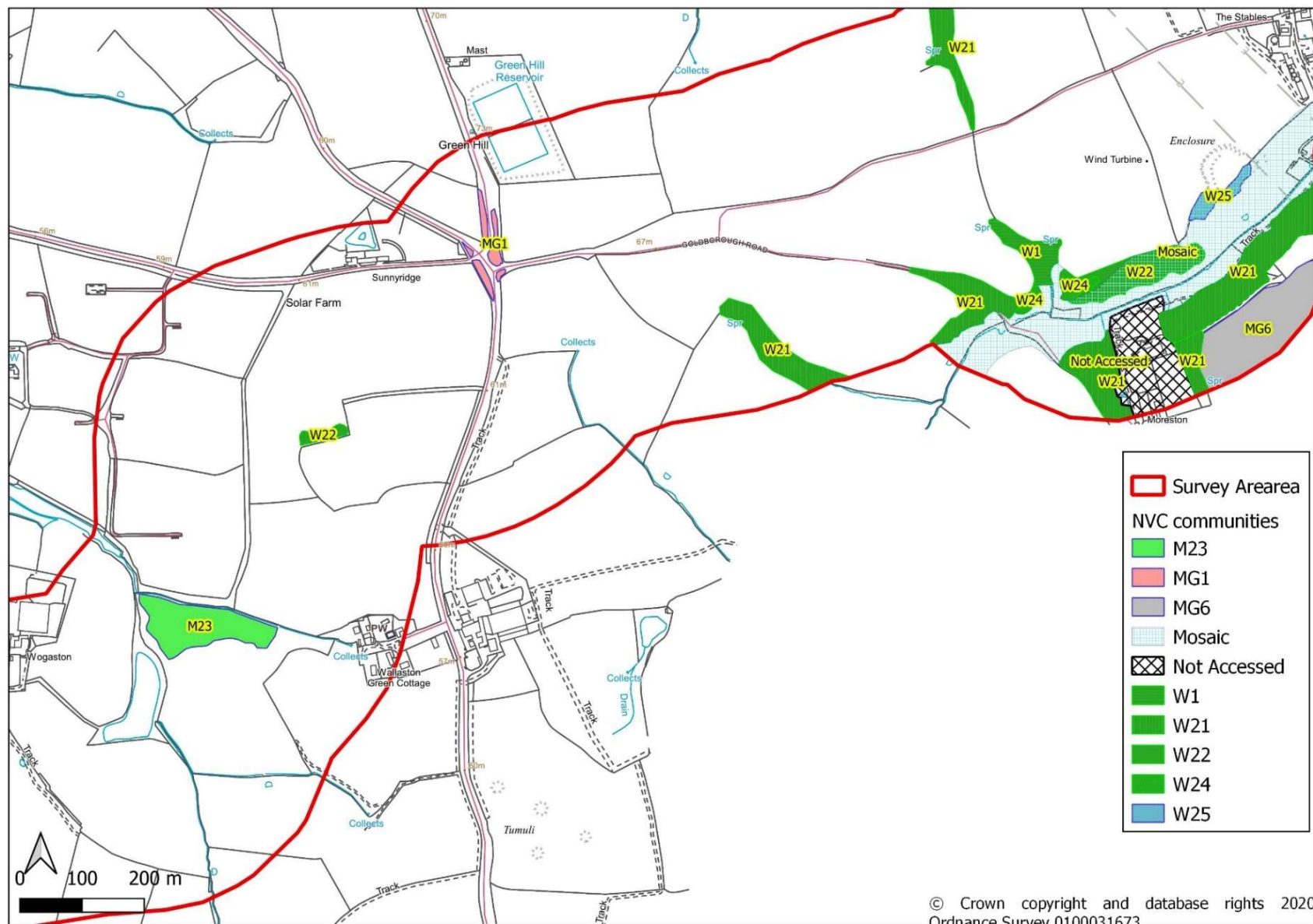


Figure 8: Lambeeth area



24

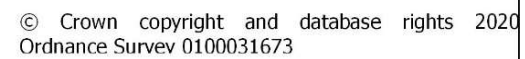
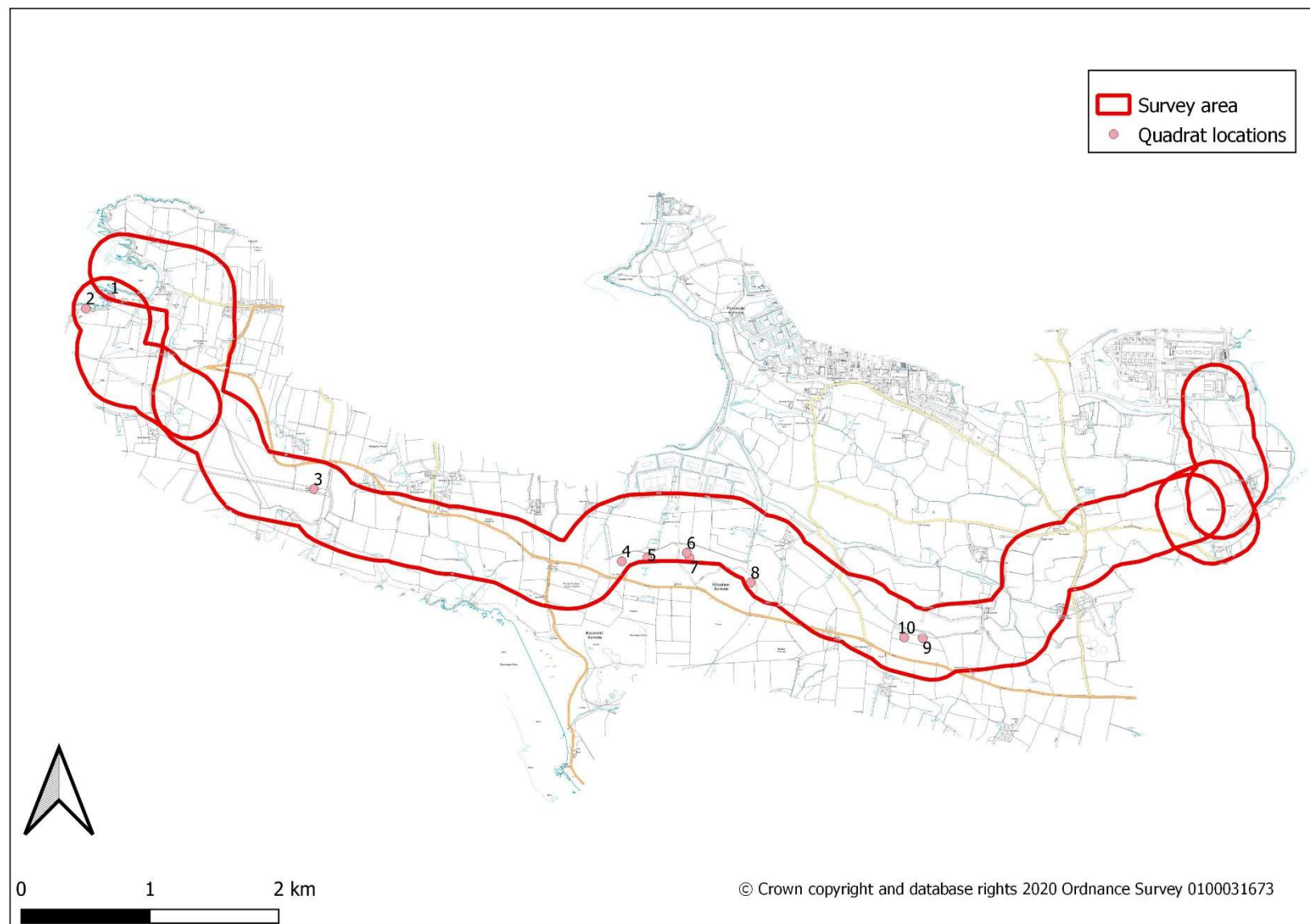


Figure 10: Quadrat locations



7. References

Hill MO. 1996. TABLEFIT version 1.0, for identification of vegetation types. Institute of Terrestrial Ecology.

Jones PS., Stevens DP., Blackstock TH., Burrows CR., Howe, EA. 2003. Priority Habitats in Wales - a technical guide. Countryside Council for Wales.

Rodwell JS. (Ed.) 1991. British Plant Communities: Volume 1 Woodland and scrub. University Press: Cambridge.

Rodwell JS. (Ed.) 1991. British Plant Communities: Volume 2 Mires and heaths. University Press: Cambridge.

Rodwell JS. (Ed.) 1992. British Plant Communities: Volume 3 Grasslands and montane communities. University Press: Cambridge.

Rodwell JS. (Ed.) 2000. British Plant Communities: Volume 5 Maritime communities and vegetation of open habitats. University Press: Cambridge.

Stace CA., 2010 New Flora of the British Isles. Third Edition University Press: Cambridge.

8. Appendix 1 Quadrat Data

Community	MG5c									
Surveyor: JH	Quadrats (Number & Domin Score)									
	1									
Grid Reference	SM 84982 03067									
Species										
<i>Achillea millefolium</i>	4									Comments: Cliff edge stand of MG5c. Small areas of MG5 with a closed, short sward on cliff edges. No maritime indicators present in the sward. The presence of <i>D. decumbens</i> and <i>C. caryophyllea</i> allow placement in MG5c
<i>Agrostis capillaris</i>	7									
<i>Agrostis stolonifera</i>	3									
<i>Anthoxanthum odoratum</i>	3									
<i>Avenula pratensis</i>	3									
<i>Carex caryophyllea</i>	4									
<i>Centaurea nigra</i>	6									
<i>Cerastium fontanum</i>	1									
<i>Cynosurus cristatus</i>	1									
<i>Dactylis glomerata</i>	3									
<i>Danthonia decumbens</i>	4									
<i>Festuca rubra</i>	5									
<i>Galium verum</i>	3									
<i>Hypochaeris radicata</i>	5									
<i>Lotus corniculatus</i>	6									
<i>Plantago lanceolata</i>	3									
<i>Primula vulgaris</i>	4									
<i>Prunella vulgaris</i>	1									
<i>Serratula tinctoria</i>	3									
<i>Trifolium dubium</i>	1									
<i>Trifolium repens</i>	3									
<i>Viola riviniana</i>	2									

Community	Other Neutral grassland (m. perennis)									
Surveyor: JH	Quadrats (Number & Domin Score)									
	2									
Grid Reference	SM 84791 02982									
Species										
<i>Mercurialis perennis</i>	9									Comments: <i>Mercurialis perennis</i> dominated grassland. Possible remnant of base-rich woodland/scrub vegetation. Does not fit any published NVC floristic tables
<i>Holcus lanatus</i>	6									
<i>Dactylis glomerata</i>	4									
<i>Cirsium arvense</i>	3									
<i>Pteridium aquilinum</i>	5									
<i>Arrhenatherum elatius</i>	4									
<i>Rumex acetosa</i>	4									
<i>Ranunculus ficaria</i>	3									
<i>Brachypodium sylvaticum</i>	3									
<i>Pulicaria dysenterica</i>	3									
<i>Silene dioica</i>	2									
<i>Heracleum spondylium</i>	3									
<i>Urtica dioica</i>	3									
<i>Poa trivialis</i>	4									

Community	MG5a									
	Quadrats (Number & Domin Score)									
	3									
Surveyor: JH										
Grid Reference	SM 86561 01580									
Species										
<i>Achillea millefolium</i>	4									Comments: Area of MG5 on old runway. Very tightly sheep grazed, this sward has likely developed from MG6 in recent times and the sward is patchy and variable. Low quality stand.
<i>Agrostis capillaris</i>	6									
<i>Agrostis stolonifera</i>	5									
<i>Aira caryophylla</i>										
<i>Anthoxanthum odoratum</i>	5									
<i>Centaurea nigra</i>	6									
<i>Cerastium fontanum</i>	3									
<i>Cirsium arvense</i>	3									
<i>Dactylis glomerata</i>	3									
<i>Festuca rubra</i>	4									
<i>Holcus lanatus</i>	6									
<i>Hypochaeris radicata</i>	4									
<i>Lotus corniculatus</i>	5									
<i>Plantago lanceolata</i>	3									
<i>Potentilla anglica</i>	3									
<i>Potentilla anserina</i>	3									
<i>Primula vulgaris</i>	4									
<i>Prunella vulgaris</i>	5									
<i>Ranunculus acris</i>	3									
<i>Ranunculus repens</i>	3									
<i>Rhinanthus minor</i>	2									
<i>Taraxacum officinale</i>	3									
<i>agg</i>										
<i>Trifolium dubium</i>	2									
<i>Trifolium pratense</i>	2									
<i>Trifolium repens</i>	3									
<i>Veronica serpyllifolia</i>	3									
<i>Vicia sativa</i>	3									
<i>Viola sp.</i>	2									

Community	M25c									
Surveyor:	Quadrats (Number & Domin Score)									
	4									
Grid Reference	SM 88952 01018									
Species										Comments: Area of <i>Molinia</i> dominated vegetation with frequent/abundant <i>Schoenus nigricans</i> . Not referable to M13. Best referred to M25c but likely to have been derived from M22 with <i>Juncus subnodulosus</i> now grazed/trampled out due to heavy winter cattle grazing.
<i>Hypericum tetrapterum</i>	2									
<i>Juncus inflexus</i>	L/F									
<i>Equisetum fluviatile</i>	3									
<i>Carex flacca</i>	1									
<i>Centaurea nigra</i>	3									
<i>Epilobium hirsutum</i>	3									
<i>Dactylis glomerata</i>	1									
<i>Dactylorhiza praetermissa</i>	2									
<i>Eupatorium cannabinum</i>	4									
<i>Festuca rubra</i>	3									
<i>Mentha aquatica</i>	5									
<i>Holcus lanatus</i>	4									
<i>Juncus acutiflorus</i>	1									
<i>Lotus pedunculatus</i>	4									
<i>Lythrum salicaria</i>										
<i>Molinia caerulea</i>	6									
<i>Rubus fruticosus</i>	3									
<i>Schoenus nigricans</i>	6									
<i>Serratula tinctoria</i>	1									
<i>Pulicaria dysenterica</i>	5									
<i>Potentilla anserina</i>	3									
<i>Ranunculus repens</i>	3									
<i>Viccia cracca</i>	2									
<i>Dryopteris filis-mas</i>	3									
<i>Cardamine pratense</i>	2									
<i>Agrostis stolonifera</i>	4									
<i>Juncus bulbosus</i>	3									
<i>Cirsium palustre</i>	1									
<i>Plantago lanceolata</i>	1									
<i>Poa pratensis</i>	1									
<i>Trifolium pratense</i>	2									
<i>Hydrocotyle vulgaris</i>	2									
<i>Veronica beccabunga</i>	2									
<i>Scrophularia nodosa</i>	2									

Community	Other Mire vegetation									
Surveyor: JH	Quadrats (Number & Domin Score)									
	5									
Grid Reference	SM 89150 01047									
Species										
<i>Juncus inflexus</i>	6									Comments: Disturbed marsh vegetation probably derived from M22. Heavy winter grazing has modified the community such that it does not fit any NVC communities
<i>Rhinanthus minor</i>	3									
<i>Dactylorhiza praetermissa</i>	2									
<i>Potentilla anserina</i>	5									
<i>Ranunculus repens</i>	5									
<i>Epilobium hirsutum</i>	3									
<i>Equisetum arvense</i>	3									
<i>Equisetum palustre</i>	3									
<i>Agrostis stolonifera</i>	4									
<i>Mentha aquatica</i>	4									
<i>Carex hirta</i>	4									
<i>Convolvulus arvensis</i>	2									
<i>Lotus pedunculatus</i>	4									
<i>Filipendula ulmaria</i>	5									
<i>Holcus lanatus</i>	4									
<i>Arrhenatherum elatius</i>	3									
<i>Dactylis glomerata</i>	3									
<i>Molinia caerulea</i>	3									
<i>Poa trivialis</i>	2									
<i>Pulicaria dysenterica</i>	5									
<i>Potentilla anglica</i>	3									
<i>Anthoxanthum odoratum</i>	4									

Community	SD9a (low quality)									
Surveyor: JH	Quadrats (Number & Domin Score)									
	6									
Grid Reference	SM 89457 01084									
Species										
<i>Anisantha sterilis</i>	4-7 (L/F)									Comments: Low quality SD9a vegetation that tends to grade downslope into a rough MG1 type grassland. These two types have few differentials and are not easy to separate.
<i>Agrostis capillaris</i>	1									
<i>Agrostis stolonifera</i>	6									
<i>Anthoxanthum odoratum</i>	2									
<i>Arrhenatherum elatius</i>	5									
<i>Convolvulus arvensis</i>	4									
<i>Dactylis glomerata</i>	5									
<i>Festuca rubra</i>	3									
<i>Galium aparine</i>	3									
<i>Heracleum spondylium</i>	4									
<i>Holcus lanatus</i>	6									
<i>Ononis repens</i>	4									
<i>Poa pratensis</i>	4									
<i>Pteridium aquilinum</i>	6									
<i>Ranunculus repens</i>	6									
<i>Rubus caesius.</i>	5									
<i>Sagina procumbens</i>	1									
<i>Sonchus asper</i>	4									
<i>Urtica dioica</i>	4									
<i>Veronica chamaedrys</i>	4									

Community	SD8b									
Surveyor: JH	Quadrats (Number & Domin Score)									
	7									
Grid Reference	SM 89479 01046									
Species										
<i>Achillea millefolium</i>	4									Comments: A short and fairly open stand of SD8b on the floor of old sand quarry area. Typical of the sub community. Reasonably species rich with <i>Dactylorhiza praetermissa</i> , <i>Anacamptis pyramidalis</i> and <i>Ophrys apifera</i>
<i>Agrostis capillaris</i>	1									
<i>Agrostis stolonifera</i>	4									
<i>Ammophila arenaria</i>	3									
<i>Anacamptis pyramidalis</i>	2									
<i>Anthoxanthum odoratum</i>	1									
<i>Bellis perennis</i>	1									
<i>Briza media</i>	4									
<i>Carex arenaria</i>	4									
<i>Carex flacca</i>	4									
<i>Centaureum erythraea</i>	2									
<i>Cerastium fontanum</i>	3									
<i>Cynosurus cristatus</i>	4									
<i>Dactylis glomerata</i>	3									
<i>Dactylorhiza praetermissa</i>	1									
<i>Euphrasia officinalis</i> agg.	4									
<i>Festuca rubra</i> agg.	5									
<i>Galium verum</i>	3									
<i>Helictotrichon pubescens</i>	4									
<i>Holcus lanatus</i>	4									
<i>Hypochaeris radicata</i>	4									
<i>Koeleria macrantha</i>	2									
<i>Linum catharticum</i>	2									
<i>Lotus corniculatus</i>	4									
<i>Luzula campestris</i>	3									
<i>Medicago lupulina</i>	2									
<i>Ononis repens</i>	3									
<i>Ophrys apifera</i>	2									
<i>Pilosella officinalis</i>	4									
<i>Plantago lanceolata</i>	4									
<i>Poa humilis</i> .	4									
<i>Poa trivialis</i>	1									
<i>Pulicaris dysenterica</i>	1									
<i>Ranunculus bulbosus</i>	2									
<i>Rhinanthus minor</i> agg.	4									
<i>Sanguisorba minor</i>	4									
<i>Senecio jacobaea</i>	2									
<i>Trifolium repens</i>	3									
<i>Trifolium pratense</i>	4									

Community	Other wet dune vegetation									
Surveyor: JH	Quadrats (Number & Domin Score)									
	8									
Grid Reference	SM 89953 00854									
Species										
<i>Festuca arundinacea</i>	4									Comments: Dune slack/flush vegetation dominated by <i>Equisetum palustre</i> . Does not fit any NVC communities. An interesting and locally distinctive vegetation type.
<i>Anthoxanthum odoratum</i>	5									
<i>Potentilla anserina</i>	5									
<i>Lathyrus pratensis</i>	4									
<i>Holcus lanatus</i>	5									
<i>Senecio erucifolia</i>	3									
<i>Lotus corniculatus</i>	3									
<i>Lotus pedunculatus</i>	5									
<i>Plantago lanceolata</i>										
<i>Rubus caesius</i>	4									
<i>Ranunculus repens</i>	4									
<i>Ranunculus acris</i>	2									
<i>Pulicaris dysenterica</i>	4									
<i>Eupatorium cannabinum</i>	5									
<i>Juncus inflexus</i>	5									
<i>Filipendula ulmaria</i>	4									
<i>Poa trivialis</i>	4									
<i>Arrhenatherum elatius</i>	3									
<i>Briza media</i>	2									
<i>Vicia sativa</i>	2									
<i>Carex flacca</i>	3									
<i>Epilobium hirsutum</i>	4									
<i>Agrostis stolonifera</i>	6									
<i>Equisetum palustre</i>	8									

Community	M23a									
Surveyor: JH	Quadrats (Number & Domin Score)									
	9									
Grid Reference	SM 91289 00422									
Species										
<i>Juncus effusus</i>	7									Comments: Species poor stand that is difficult to assign to sub-community M23a due to missing <i>Juncus acutiflorus</i> but referred to this sub-community due to presence of tall herbs and preferentials <i>Luzula multiflora</i> and <i>Taraxacum officinale</i>
<i>Anthoxanthum odoratum</i>	5									
<i>Plantago lanceolata</i>	5									
<i>Centaurea nigra</i>	3									
<i>Lotus pedunculatus</i>	5									
<i>Carex flacca</i>	4									
<i>Equisetum palustre</i>	5									
<i>Ranunculus acris</i>	3									
<i>Filipendula ulmaria</i>	5									
<i>Agrostis stolonifera</i>	5									
<i>Cardamine pratensis</i>	1									
<i>Festuca rubra</i> agg.	4									
<i>Luzula multiflora</i>	3									
<i>Taraxacum officinale</i>	3									

Community	<i>Oenanthe crocata</i> dominated vegetation									
Surveyor: JH	Quadrats (Number & Domin Score)									
	10									
Grid Reference	SM 91145 00427									
Species										
<i>Oenanthe crocata</i>	9									Comments: A very species poor stand of vegetation dominated by <i>Oenanthe crocata</i> but with forbs such as <i>Centaurea nigra</i> frequent throughout. Does not fit any NVC communities. An interesting and locally distinctive vegetation type.
<i>Juncus effusus</i>	7									
<i>Filipendula ulmaria</i>	5									
<i>Carex nigra</i>	5									
<i>Centaurea nigra</i>	3									
<i>Ranunculus acris</i>	2									
<i>Potentilla anserina</i>	2									



ITPEnergised is a leading, international consultancy offering renewable energy, natural resources, environmental, engineering, technical advisory and asset management services for clients with onshore and offshore projects.

Visit the ITPENERGISED group offices in:

Bristol, London, Edinburgh, Glasgow, Buenos Aires, Lisbon, Madrid, Delhi, Beijing, Canberra, Auckland

Sectors:

Onshore Renewables & Storage | Offshore Renewables | Oil & Gas
Property & Urban Regeneration | Corporate, Industrial & Manufacturing

