



## **Vegetation at Staney Hill.**

**A report to Redman Sutherland Architects, August,  
2016 by the Shetland Biological Records Centre.**

## **1. Background.**

Shetland Biological Records Centre was commissioned by Redman Sutherland Architects to undertake a survey of an area at Staney Hill, Lerwick that is subject to a planning application for housing development. The purpose of the survey was to map all habitats to a Phase 1 level, identify any potential Ground Water Dependent Terrestrial Ecosystems (GWDTEs) and classify them using the National Vegetation Classification (NVC), and comment on the conservation importance of these GWDTEs.

## **2. Methodology.**

The site was surveyed by Rory Tallack and Paul Harvey on August 5<sup>th</sup> and August 10<sup>th</sup>. An initial look at aerial photographs was followed by a walkover survey during which habitats were identified at a Phase 1 level. More detailed botanical surveys were undertaken where the habitat was potentially dependent on ground water flow.

## **3. Results.**

### **3.1 General site description and Phase 1 habitats**

The area is essentially a hillside comprising dry heathland punctuated by varying amounts of acid grassland, with smaller pockets of blanket bog and a few acid flushes. The lack of, or low levels of, grazing in recent years means the site looks in very good condition, with luxurious flowering heather (*Calluna vulgaris*) and abundant Crowberry (*Empetrum nigrum*) at the time of survey.

The surface vegetation is very much a product of soil depth. There is frequent outcropping of rock at the surface on the steeper slopes and here the soil depth is shallow with dry heathland and acid grassland dominant. Smaller pockets of blanket bog occur where a reasonable depth of peat has developed in shallow basins, valleys and on shallower slopes, and in many places the vegetation is best described as a mosaic of dry heathland and blanket bog. The topography means that there are no large expanses of blanket bog on the site. A series of acid flushes occur on the south and east facing slopes although many of these have now been lost as a consequence of the development of the Anderson High School.

A phase one map is attached.

### **3.2 Potential GWDTEs and NVC.**

#### *3.2.1 Blanket bog.*

A series of small areas of blanket bog, smaller than 20m x 20m in extent, and often in a patchy mosaic within more extensive dry heathland, are ignored at this stage.

Five larger areas of blanket bog were identified but even within these the peat depth is highly variable due to the underlying topography, leading to varied surface vegetation. In

terms of the NVC, areas 1, 2 and 3 are closest in fit to M19 (*Calluna vulgaris-Eriophorum vaginatum* blanket mire), area 4 grades from M15 (*Tricophorum germanicum-Erica tetralix* wet heath) into M19, and area 5 is probably best described as a large M1 (*Sphagnum denticulatum* bog pool), although here too the depth is highly variable, it is a mosaic with M17/M19 blanket bog, and some damage has been sustained through vehicle use.

Whilst all of these areas can be described as active blanket bog, their extent is limited as they occupy small basins, shallow slopes or narrow valleys, and they are not linked. The peat depth in these areas is typically relatively shallow – between 0.5m and 1m in depth. These pockets of blanket bog are therefore of low conservation interest.

A series of acid flushes occur along the southern and eastern slopes where ground water emerges at the surface or, where water has moved through the surface layers. In NVC terms these flushes are best described as the *Juncus effusus* sub-community of M6 (*Carex echinata-Sphagnum recurvum/auriculatum* mire). These flushes are of low conservation interest and are ubiquitous in Shetland, many similar nearby flushes have already been lost as part of the Anderson High School Development.

## **5 Summary.**

The principal vegetation at Staney Hill is dry heathland, often in a mosaic with acid grassland. There are several small areas of active blanket bog within the site boundary but given their restricted extent they are of only low conservation interest. The acid flushes on the south and east facing slopes are of low conservation interest and are ubiquitous in Shetland.

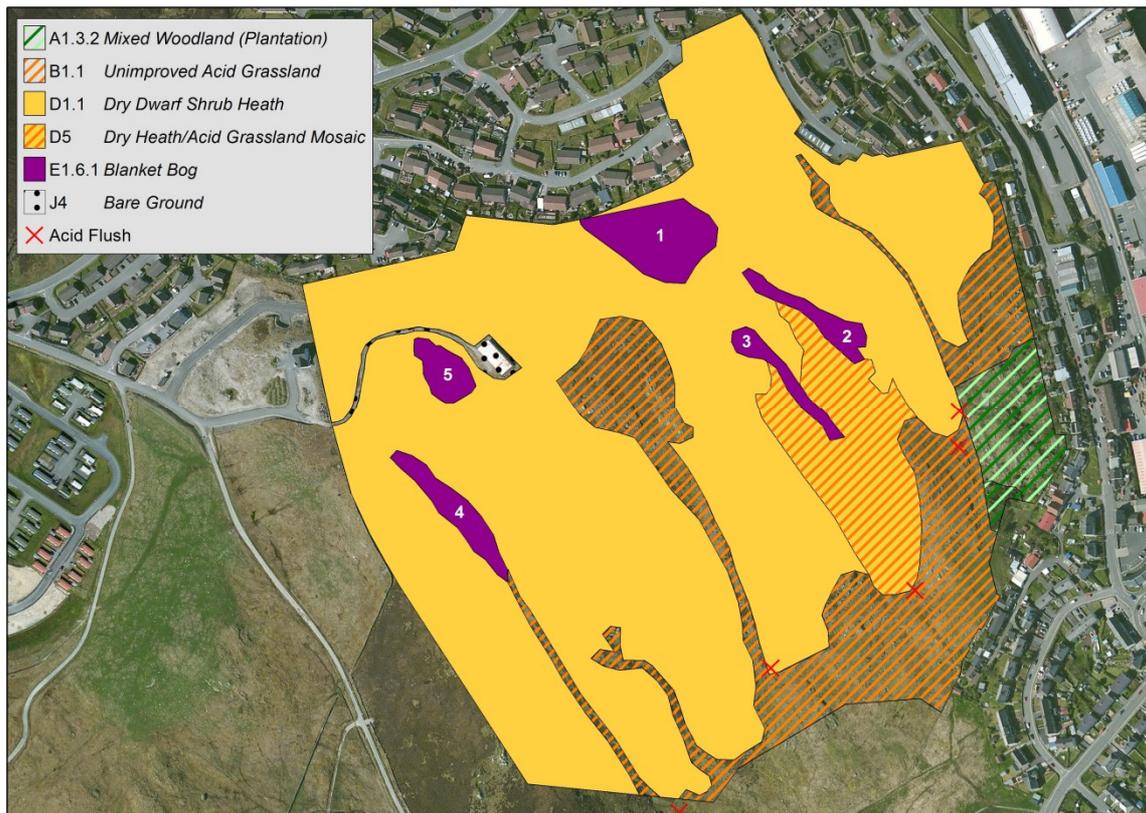
Whilst some of the areas of blanket bog could be incorporated into the development, this will require careful consideration, most notably as to how they link with other areas of semi-natural habitat (heathland) and how construction works may impact on their hydrology. If they become isolated units then they could be viewed by residents as relatively unimportant 'waste ground' in the future, with the consequent problems of maintenance and littering etc. Arguably, the incorporation of areas with outcropping bedrock and bushy flowering heather may be a more attractive proposition to future residents, be easier to safeguard during construction and maintain in the future.

In our view, careful planning as to how to incorporate some areas of semi-natural habitat into the development in a positive way, is of greater importance than simply ensuring that areas of active blanket bog are included per se.

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11<sup>th</sup> August 2016.

## Phase 1 Habitat Map



M6 flushes were recorded at: HU 4669 4198, HU 4671 4197, HU 4657 4178, HU 4668 4185 and HU 4647 4167.