

Sandleford Park, Newbury

Appendix F22: Grassland National Vegetation Classification Survey Report



Bloor Homes & The Sandleford Farm Partnership

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Executive Summary

Contents	Summary
Site Location	The site is located at Sandleford Park in Newbury, West Berkshire, centred on OS Grid Reference SU 46847 64550. The site comprises agricultural fields with areas of grassland and several copses of ancient woodland. A central valley runs from the north-western corner of the site towards the River Enborne at the site's southern boundary.
Existing Site Information	WYG completed an initial ecological appraisal in 2008 with update surveys completed in 2011, 2013, 2014, 2015 and 2017. In addition a number of protected species surveys and botanical surveys have been completed at the site over this time, and during 2018. A grassland NVC survey was last completed in 2014.
Scope of this Survey(s)	To clarify the current status of the marshy grasslands at Sandleford Park, with reference to the current proposals.
Results	The marshy grasslands range in quality from some fairly uniform species-poor Yorkshire fog-dominated grasslands on the drier ground to mixed soft rush pastures on the wetter ground to some diverse sharp-flowered rush stands on the flat valley bottoms on the wettest soils.
	The sharp-flowered rush stands are the vegetation type M23 <i>Juncus effusus/acutiflorus</i> (rush species) - <i>Galium palustre</i> (marsh bedstraw) rush-pasture which forms part of the Purple Moor Grass and Rush Pastures Habitat of Principal Importance. The other marshy grassland types are generally regarded as a modified grassland types of lower botanical interest.
	The small area of Purple Moor Grass and Rush Pastures Habitat of Principal Importance along the valley bottoms at Sandleford (0.445 ha) contains 16% of the known Berkshire resource of this habitat and is assessed as being of County Importance.
Recommendations	Avoidance, mitigation, habitat creation and enhancements for marshy grassland has been built into the proposals and the Ecological Mitigation and Management Plan (<i>Appendix F18</i>) and will be refined during the detailed design of the valley crossings.
	It is recommended that the detailed design of the road bridge and paths at the reserve matters stage is informed by accurate mapping of the small area of Purple Moor Grass and Rush Pastures Habitat of Principal Importance along the valley bottoms at Sandleford.



Glossary

BSBI Botanical Society of the British Isles

CEnv Chartered Environmentalist

CIEEM Chartered Institute of Ecology & Environmental Management

HAP Habitat Action Plan

HPI Habitat(s) of Principal Importance

IUCN International Union for the Conservation of Nature

JNCC Join Nature Conservancy Council LBAP Local Biodiversity Action Plan

LNR Local Nature Reserve
LWS Local Wildlife Site

MCIEEM Member of Chartered Institute of Ecology & Environmental Management

NERC Act Natural Environment and Rural Communities Act 2006

NNR National Nature Reserve

NPPF Revised National Planning Policy Framework

NVC National Vegetation Classification
PEA Preliminary Ecological Appraisal

RPR Rare Plant Registers

SAC Special Area of Conservation SPA Special Protection Area

SPI Species of Principal Importance SSSI Site(s) of Special Scientific Interest

TVERC Thames Valley Environmental Records Centre

VC Vice-county

W&CA Wildlife & Countryside Act 1981

WHS Wildlife Heritage Site



1.0 Introduction

1.1 Background

WYG was commissioned by Bloor Homes and the Sandleford Farm Partnership on the 27th November 2017 to undertake a marshy grassland survey with the aim of clarifying the current status of the marshy grasslands at Sandleford Park, with reference to the current proposals.

1.2 Site Location

The site is located at Sandleford Park in Newbury, West Berkshire and is centred at Ordnance Survey National Grid Reference SU 46847 64550. The survey area, hereafter referred to as the 'site', is shown on Figure 1 and comprises of agricultural fields with areas of grassland and several copses of ancient woodland dispersed throughout. A central valley runs from the north-western corner of the site towards the River Enborne at the site's southern boundary.

For details of the development description, please see the main ES chapter.

1.3 Purpose of the Report

The objective of this is assessment is to review the findings of 2018 grassland survey with reference to the current proposals.

Note that, where possible, common names for flora and fauna have been used throughout this report for ease of reading.



2.0 Methodology

2.1 Field Survey

The marshy grasslands surveyed are shown on Figure 1. They were surveyed using the look-see approach (cf. Hill *et al.* 2005) on 4 July 2018 in warm, dry weather by Dr Tim Rich BSc PhD MCIEEM, who has 36 years of experience of botanical surveys.

Following the standard Phase 1 method (JNCC 2010), Target Notes were made different areas of marshy grassland (Appendix 1). Vascular plant species were recorded for each field using the DAFOR frequency scale (D=dominant, A= abundant, F= frequent, O = occasional, R=rare, sometimes qualified with V=very or L=locally). The grasslands were also ascribed to vegetation types in the British Plant Communities/National Vegetation Classification (NVC) (Rodwell 2006) but this does not constitute a full NVC survey as they were classified from a visual walkover survey from experience with no quadrats recorded. Plant nomenclature follows Stace (2010).

2.2 Limitations

The survey was completed in July which is within the optimal survey window for botanical surveys. At the time of survey, some areas of marshy grassland near the pheasant pens (e.g. Target note 2; Figure 1) had been topped in the previous week, so the composition of the vegetation was assessed from the cut remains and occasional uncut patches. This is not considered to be a limitation to the accurate assessment of the habitats and the dominant species of the respective vegetation types were visible and identifiable.

To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. As a result, this survey focuses on assessing the potential of the site to support habitats and species of note, which are considered to be of principal importance for the conservation of biodiversity with reference to those given protection under UK or European wildlife legislation. This report cannot therefore be considered a comprehensive assessment of the ecological interest of the site. However, it does provide an assessment of the ecological interest present on the day the site was visited and highlights areas where further survey work may be recommended.

The details of this report will remain valid for a period of **two years** from the date of the survey, after which the validity of this assessment should be reviewed to determine whether further updates are necessary. Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or development proposals upon which this report was based.



3.0 Baseline Conditions

3.1 Survey Results

There are extensive marshy grasslands in the valley bottoms between High Wood, Slockett's Copse and Dirty Ground Copse (Figure 1). Detailed target notes on the grasslands are given in the Appendix, which are summarised below.

At the time of survey, the marshy grasslands were generally dry underfoot with a few wet seepage zones (despite the summer 2018 drought) but earlier in the year in May 2018 on a previous visit by Tim Rich the soils were very wet and soft underfoot. In some years the ground remains soft and the tractors used to top the rushes become bogged down (personal communication from Gamekeeper), and the ground is very locally uneven. The grasslands are ungrazed, but are routinely topped in summer (with cuttings left in situ) to minimise fox predation on young pheasants.

The marshy grasslands range in quality from some fairly uniform species-poor Yorkshire fog (*Holcus lanatus*)-dominated grasslands on the drier ground (e.g. Target note 7; Figure 1) to mixed soft rush (*Juncus effusus*) pastures on the wetter ground (e.g. Target notes 1, 2, 3, 5, 8; Figure 1), and then to some diverse sharp-flowered rush (*Juncus acutiflorus*) stands on the flat valley bottoms on the wettest soils (e.g. Target note 1, 4, 6; Figure 1). Many areas appear quite species-poor and are dominated by grasses and rushes with a few herbs, perhaps resulting from a long history of historic grazing, though they are now extensively managed and may be slowly reverting with typical marshy grassland forbs such as marsh bedstraw (*Galium palustre*) and marsh bird's-foot trefoil (*Lotus pedunculatus*) present in a few places.

Some marshy grasslands have large patches of nettles, indicative of nutrient-enrichment presumably from fertiliser draining down from adjacent arable crops (e.g. Target note 7, Figure 1). As the grasslands become dryer up the valley sides they are often dominated by Yorkshire fog (*Hocus lanatus*) with relatively few rushes and other grasses, and those at the north-west end are coarse with frequent tufted hair-grass (*Deschampsia cespitosa*) (e.g. Target note 5, Figure 1).

In terms of British Plant Communities (Rodwell 1992):

- The soft rush-dominated pastures are MG10a *Holcus lanatus* (Yorkshire fog) *Juncus effusus* (soft rush) pasture (e.g. Target note 7; Figure 1). This is characteristic of permanently moist and periodically inundated soils throughout the British lowlands (Jefferson et al. 2014).
- The grasslands at the north-west end of the valley grade from MG10 Holcus Juncus grassland (e.g. Target notes 1, 2, 3, 5, 8; Figure 1) into MG9 Holcus lanatus (Yorkshire fog) Deschampsia cespitosa (tufted hair-grass) grassland (e.g. Target note 5; Figure 1), another widespread grassland characteristic of permanently moist and periodically-inundated soils throughout the lowlands (Jefferson et al. 2014).
- The sharp-flowered rush vegetation in the valley bottoms is the M23a *Juncus effusus/acutiflorus* (rush species) *Galium palustre* (marsh bedstraw) rush-pasture *Juncus acutiflorus* (sharp-flowered rush) sub-community (e.g. Target note 1, 4, 6; Figure 1), which is widespread on wet, moderately acid to neutral peaty and mineral soils primarily in the cool and wet lowlands and upland fringes of northern and western Britain.



• Between the MG10 and M23a some vegetation may be some M23b *Juncus effusus/acutiflorus* (rush species) - *Galium palustre* (marsh bedstraw) rush-pasture *Juncus effusus* (soft rush) sub-community which is essentially transitional between the two vegetation types.



4.0 Summary

The 2015 assessment (WYG 2016) stated that "The marshy grassland areas on site do not directly conform with Habitat(s) of Principal Importance (HPI) definitions. They are however closely related to 'fens and wet mesotrophic grasslands' HPI and are therefore considered to be of value at a Local level.

Following the more detailed surveys in 2018, this previous assessment can be updated. The Sandleford marshy grasslands are not considered to fit well into the lowland fens priority habitat types which are characterised by short vegetation with a high proportion of bog mosses *Sphagnum* spp. and acid water (pH of 5 or less) or are rich-fens, are fed by mineral-enriched calcareous waters (pH 5 or more) (JNCC 2008), and these do not occur at Sandleford. The M23 *Juncus effusus/acutiflorus* (rush species) - *Galium palustre* (marsh bedstraw) rush-pasture is listed as a typical fen-meadow component of fens in the SSSI selection criteria which are now covered under lowland grasslands rather than fens (JNCC 2018).

Under the lowland grassland habitat types, the marshy grasslands have affinities with the Purple Moor Grass and Rush Pastures Habitat of Principal Importance, which are weakly defined as "vegetation, which has a distinct character, consists of various species-rich types of fen meadow and rush pasture. Purple moor-grass *Molinia caerulea*, and rushes, especially sharp-flowered rush *Juncus acutiflorus*, are usually abundant. Just as the best examples of lowland heath contain a wide range of plant communities, so the same is true for this habitat" (JNCC 2018). Although Purple moor-grass is absent from Sandleford, the sharp-flowered rush is locally dominant in a few places. The marshy grasslands do not fit the lowland meadows priority habitat (NVC types MG5 *Cynosurus cristatus-Centaurea nigra* grassland, MG4 *Alopecurus pratensis-Sanguisorba officinalis* floodplain meadow and MG8 *Cynosurus cristatus-Caltha palustris* flood-pasture; JNCC 2008).

Thus the small areas (estimated to be 0.445 ha) of M23 *Juncus effusus/acutiflorus* (rush species) - *Galium palustre* (marsh bedstraw) rush-pasture along the valley bottom at Sandleford (Target notes 1, 4, 6; Figure 1) are here accepted as part of the Purple Moor Grass and Rush Pastures Habitat of Principal Importance. This marshy grassland community is considered to be of high botanical nature conservation value (Jefferson et al. 2014) and the small areas at Sandleford are significantly richer than the surrounding soft rush pastures. The other marshy grassland types at Sandleford – the MG9 *Holcus lanatus* (Yorkshire fog) - *Deschampsia cespitosa* (tufted hair-grass) grassland and MG10 *Holcus lanatus* (Yorkshire fog) - *Juncus effusus* (soft rush) pasture - are generally regarded as a modified grassland types of lower botanical interest (Jefferson et al. 2014).

Taken altogether, the marshy grasslands form an extensive area with the small areas of richer M23 *Juncus effusus/acutiflorus* (rush species) - *Galium palustre* (marsh bedstraw) rush-pasture set within the much large and moderate diversity of the other marshy grasslands. The areas of M23 are too small (<0.5 ha) to merit consideration for selection as a Site of Special Scientific Interest under the site selection criteria (JNCC 2018) but are considered important within a Berkshire context. The Berkshire Local Nature Partnership (2014) lists only 7.37 ha Purple Moor Grass and Rush Pastures Habitat of Principal Importance as present in Berkshire, mostly in the Blackwater Valley (rather than the 18.37 ha listed by Natural England, cf. Berkshire Local Nature Partnership 2014 Appendix 3). The Sandleford site thus contains about 16% of the known Berkshire resource and as such, this habitat is now assessed as being of County Importance (previously considered likely to be of Local value).



Avoidance and mitigation measures as well as marshy grassland creation and enhancement are included within the proposals and outlined within the Ecological Mitigation and Management Plan (Appendix F18 of the Environmental Statement), and will be refined during the detailed design of the valley crossings.

It is recommended that the detailed design of the road bridge and paths at the reserve matters stage is informed by accurate mapping of the small area of Purple Moor Grass and Rush Pastures Habitat of Principal Importance along the valley bottoms at Sandleford.



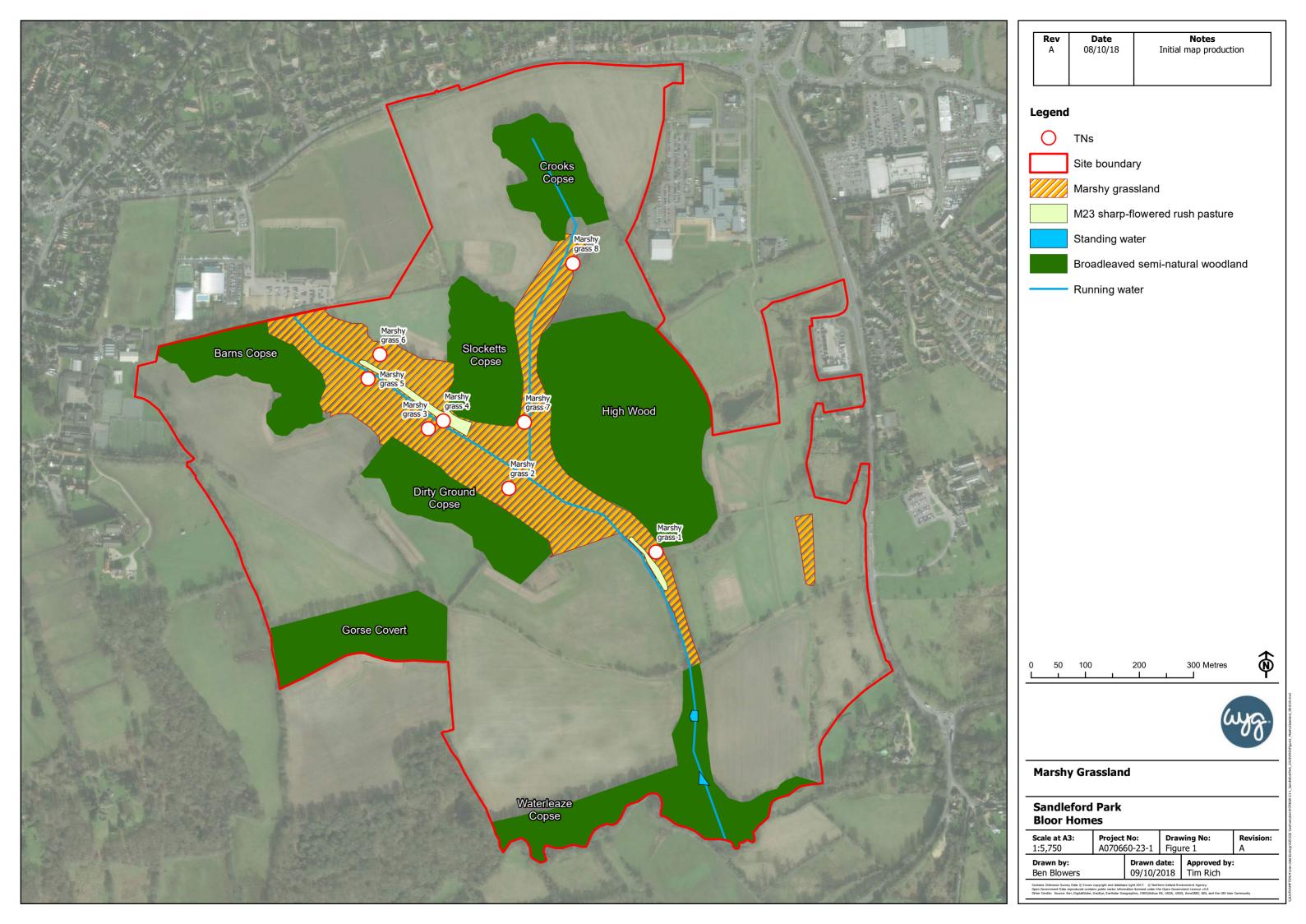
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FIGURES

Figure 1 – Marshy Grassland Plan





APPENDICES Appendix A — Marshy Grassland Target Notes



Target note 1. SU4715064381

MG10a grassland grading into a narrow strip of M23a lower down, dominated by soft rush with abundant marsh thistle. Rank, ungrazed, mostly uncut by some parts topped. Lots of butterflies and bees noted.



Giant bent (Agrostis gigantea) Creeping bent (Agrostis stolonifera) Marsh foxtail (*Alopecurus geniculatus*) Rare Meadow Foxtail (Alopecurus pratensis) Wavy bittercress (*Cardamine flexuosa*) Rare Cuckooflower (Cardamine pratensis) Rare Hairy sedge (Carex hirta) Black sedge (Carex nigra) Rare

Creeping thistle (*Cirsium arvense*) Marsh thistle (*Cirsium palustre*)

Tufted hair-grass (*Deschampsia cespitosa*) American willowherb (*Epilobium ciliatum*) Hoary willowherb (*Epilobium parviflorum*)

Red Fescue (Festuca rubra) Cleavers (Galium aparine) Rare Marsh bedstraw (Galium palustre) Rare Yorkshire-fog (*Holcus lanatus*) Square-stalked St John's-wort (*Hypericum tetrapterum*)

Sharp-flowered rush (*Juncus acutiflorus*)

Soft rush (Juncus effusus) Marsh bird's-foot trefoil (*Lotus pedunculatus*) Changing forget-me-not (*Myosotis discolor*) Rough meadow-grass (*Poa trivialis*) Meadow buttercup (Ranunculus acris) Creeping buttercup (Ranunculus repens) Common sorrel (Rumex acetosa) Broad-leaved Dock (Rumex obtusifolius) Wood dock (Rumex sanguineus) Water figwort (*Scrophularia auriculata*)

Occasional Frequent Occasional Occasional

Very locally frequent

Abundant Rare Rare Rare Occasional Frequent Rare

Locally dominant Locally dominant

Rare Rare Frequent Occasional Occasional Occasional Rare Occasional Rare



Ragwort (*Senecio jacobaea*) Bog stitchwort (*Stellaria alsine*) Common nettle (*Urtica dioica*) Occasional
Occasional
Locally frequent

Target note 2. SU4684464497

Uncut, tall, marshy grasslands (MG10a) dominated by soft rush with some wetter areas and grading into more grassy meadow foxtail – Yorkshire fog – sweet vernal-grass grassland above.



Meadow Foxtail (*Alopecurus pratensis*)
Hairy sedge (*Carex hirta*)
Marsh thistle (*Cirsium palustre*)
Common couch (*Elytrigia repens*)
Floating sweet-grass (*Glyceria fluitans*)
Yorkshire-fog (*Holcus lanatus*)
Sharp-flowered rush (*Juncus acutiflorus*)
Soft rush (*Juncus effusus*)
Amphibious bistort (*Persicaria amphibia*)
Timothy (*Phleum pratense*)
Rough meadow-grass (*Poa trivialis*)
Creeping buttercup (*Ranunculus repens*)
Wood dock (*Rumex sanguineus*)
Lesser stitchwort (*Stellaria graminea*)

Frequent
Rare
Locally abundant
Occasional
Rare
Abundant
Locally abundant
Locally dominant
Occasional
Occasional
Frequent
Frequent
Frequent
Rare



Target note 3. SU4669564607

This area is very similar to the grasslands in Target note 2; uncut, tall, marshy grasslands dominated by soft rush.





Target note 4. SU4672364621

A diverse area of M23a marshy grassland dominated by sharp rush with a range of other species including:

Sweet vernal-grass (*Anthoxanthum odoratum*) Frequent Occasional Brown sedge (*Carex disticha*) Black sedge (*Carex nigra*) Occasional Frequent Marsh thistle (*Cirsium palustre*) Red Fescue (Festuca rubra) Frequent Yorkshire-fog (Holcus lanatus) Frequent Square-stalked St John's-wort (*Hypericum tetrapterum*) Rare Sharp-flowered rush (*Juncus acutiflorus*) Dominant Soft rush (Juncus effusus) Frequent Meadow vetchling (*Lathyrus pratensis*) Occasional Marsh bird's-foot trefoil (Lotus pedunculatus) Frequent Water mint (Mentha aquatica) Locally frequent Rough meadow-grass (*Poa trivialis*) Frequent Meadow buttercup (Ranunculus acris) Frequent Common sorrel (*Rumex acetosa*) Occasional





Target note 5. SU4658364700

This area is very similar to the grasslands in Target notes 2 and 4, uncut, tall, marshy grasslands dominated by soft rush which grades into MG9 *Holcus -Deschampsia* grassland towards the northwest end.



Target note 6. SU4660564744

A diverse narrow marshy strip of M23a on the wet soils at the bottom of the slope. The sides of the valley above are a little dryer with Yorkshire fog-dominated grasslands and a line of springs along the slope.





Target note 7. SU4687364619

A narrow uncut strip of species-poor, rough grassland between stream and wood, on uneven disturbed ground (some soils wet, some dry), with patches of nettles, soft rush or Yorkshire fog.



Target note 8. SU4696264913

An area of soft rush at the head of valley with a little stream and open bank vegetation in taller rushy surrounds (MG10a with a few patches of sharp-flowered rush), and some areas of nettles and marsh thistles. Other species of note include:

Fool's-water-cress (*Apium nodiflorum*)
Hoary willowherb (*Epilobium parviflorum*)
Floating sweet-grass (*Glyceria fluitans*)
Bristle clubrush (*Isolepis setacea*)
Bog stitchwort (*Stellaria alsine*)
Brooklime (*Veronica beccabunga*)

Rare Occasional Occasional Occasional Occasional

