

H44403

Loch name ... MUCKLE WATER ... Island ... WESTRAY ... No. ... 102 ...  
 Grid Reference ... HY 430431 ... Date surveyed ... 11/9/88 ...  
 Loch size ... 0.72 ha. Altitude ... <10 m Secchi disk depth ... ..m  
 Water colour ... BROWN ... Loch level up ... ..cm down ... ..cm  
 Adjacent wetland ... NONE ...  
 Loch status ... ✓ ... Type 7A ...

<u>Substrate types</u>	
Bedrock ✓	Sand (0.1-4mm diameter) ✓
Boulders (> 30cm max diameter) ✓	Silt (< 0.1mm diameter) ✓
Stones (5-30cm diameter)	Organic mud (black and smelly) ✓
Gravel (4-50mm diameter)	Peat
	Artificial embankment

Uses and Damage

USE	AREA AFFECTED	DAMAGE
Water abstraction	.....	.....
Sewage inflow	.....	.....
Agricultural pollution	.....	.....
Edge trampling: animals ✓	<u>≈ 7.5%</u>	<u>BARE MUD EDGE</u>
: people	.....	.....
Fishing	.....	.....
Shooting	.....	.....
Others	.....	.....

Fauna

Birds	Mammals	Molluscs	Dragonflies
<u>HERON</u>			
<u>REDSHANK</u>			
<u>SNIFE</u>			

Water chemistry

Water sample taken No. ... ✓ .....	Time spent on site ... <u>3/4 hr (x3)</u> .....
Dates of samples ... ✓	Conductivity ... <u>5700</u> .....

Species checklist for ....MUCKLE WATER..... NO. IV c

519/3

Map code	Species	DAFOR	Map code	Species	DAFOR
Ags	<u>Agrostis stolonifera</u> Edge	A...	Pha	Phragmites australis	.....
Api	Apium inundatum	.....	Pam	Polygonum amphibium	.....
Cah	Callitriche hamulata	.....	Pbe	Potamogeton berchtoldii	.....
Cher	Callitriche hermaphroditica	.....	Pcr	<u>Potamogeton crispus</u> ERB '74	.....
Cpla	Callitriche platycarpa	.....	Pfil	<u>Potamogeton filiformis</u>	.0...
Cas	Callitriche stagnalis	.....	Pfr	Potamogeton friesii	.....
Cap	Caltha palustris	.....	Pgr	Potamogeton gramineus	.....
Cxn	Carex nigra	.....	Pn	Potamogeton natans	.....
Cxro	Carex rostrata	.....	PXn	Potamogeton X nitens	.....
Elp	<u>Eleocharis palustris</u> Edge	.LD..	Pob	Potamogeton obtusifolius	.....
Era	Eriophorum angustifolium	.....	Ppec	<u>Potamogeton pectinatus</u>	.LD..
GlF	<u>Glyceria fluitans</u> Edge	.LD..	Pper	Potamogeton perfoliatus	.....
Hip	<u>Hippuris vulgaris</u> Edge	.LD..	Ppol	Potamogeton polygonifolius	.....
Hyd	Hydrocotyle vulgaris	.....	Ppu	Potamogeton pusillus	.....
Ip	Iris pseudacorus	.....	Pop	Potentilla palustris	.....
Ja	Juncus articulatus	.....	Ra	Ramunculus aquatilis	.....
Jb	Juncus bulbosus	.....	Rb	<u>Ramunculus baudotii</u>	.LF..
Je	Juncus effusus	.....	Rfl	Ramunculus flammula	.....
Im	Lemna minor	.....	Rhe	Ramunculus hederaceus	.....
Lit	Littorella uniflora	.....	Rtr	Ramunculus trichophyllus	.....
Ma	Mentha aquatica	.....	Ris	Rorippa islandica	.....
Mt	Menyanthes trifoliata	.....	Sf	Scirpus fluitans	.....
Mg	Mimulus guttatus	.....	Sl	Scirpus lacustris	.....
Mon	Montia fontata	.....	St	Scirpus tabernaemontani	.....
Myl	Myosotis laxa/caespitosa	.....	Spa	Sparganium angustifolium	.....
Msc	Myosotis scorpioides	.....	Spe	Sparganium erectum	.....
Mal	Myriophyllum alterniflorum	.....	Uti	Utricularia intermedia	.....
Msp	<u>Myriophyllum spicatum</u>	.0...	Um	Utricularia minor	.....
Nas	Nasturtium officinale	.....	Uva	Utricularia vulgaris/australis	.....
Pa	Phalaris arundinacea	.....	Une	Utricularia neglecta	.....

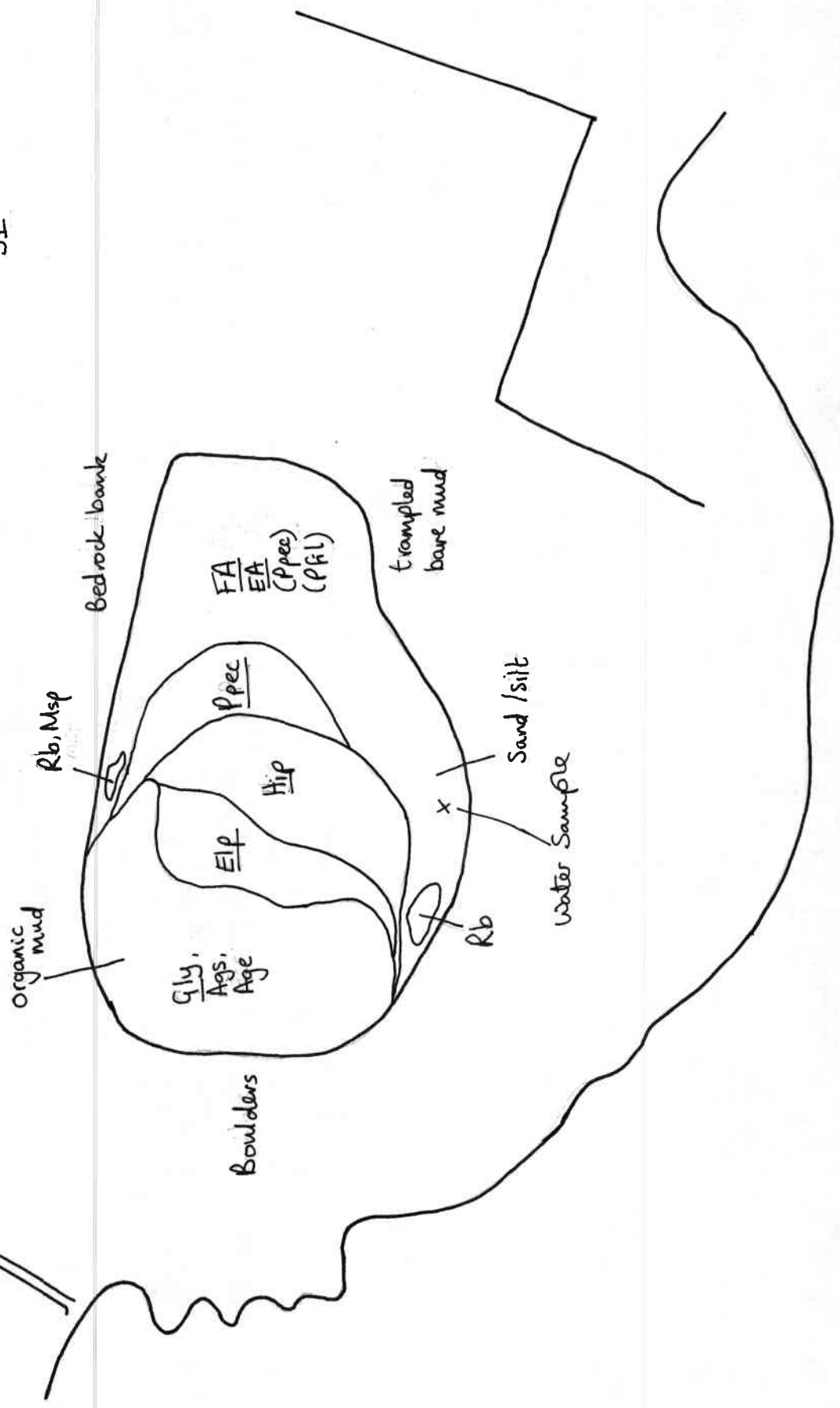
Map code	Species	DAFOR	
Vb	Veronica beccabunga	.....	Age.. Alopecurus.. geniculatus.... A...
Vaa	Veronica anagallis-aquatica	.....	.....
Vs	Veronica scutellata	.....	.....
Ef	Equisetum fluviatile	.....	.....
Ep	Equisetum palustre	.....	.....
Cha	Chara spp.	.....	.....
Nit	Nitella spp.	.....	.....
Fon	Fontinalis antipyretica	.....	.....

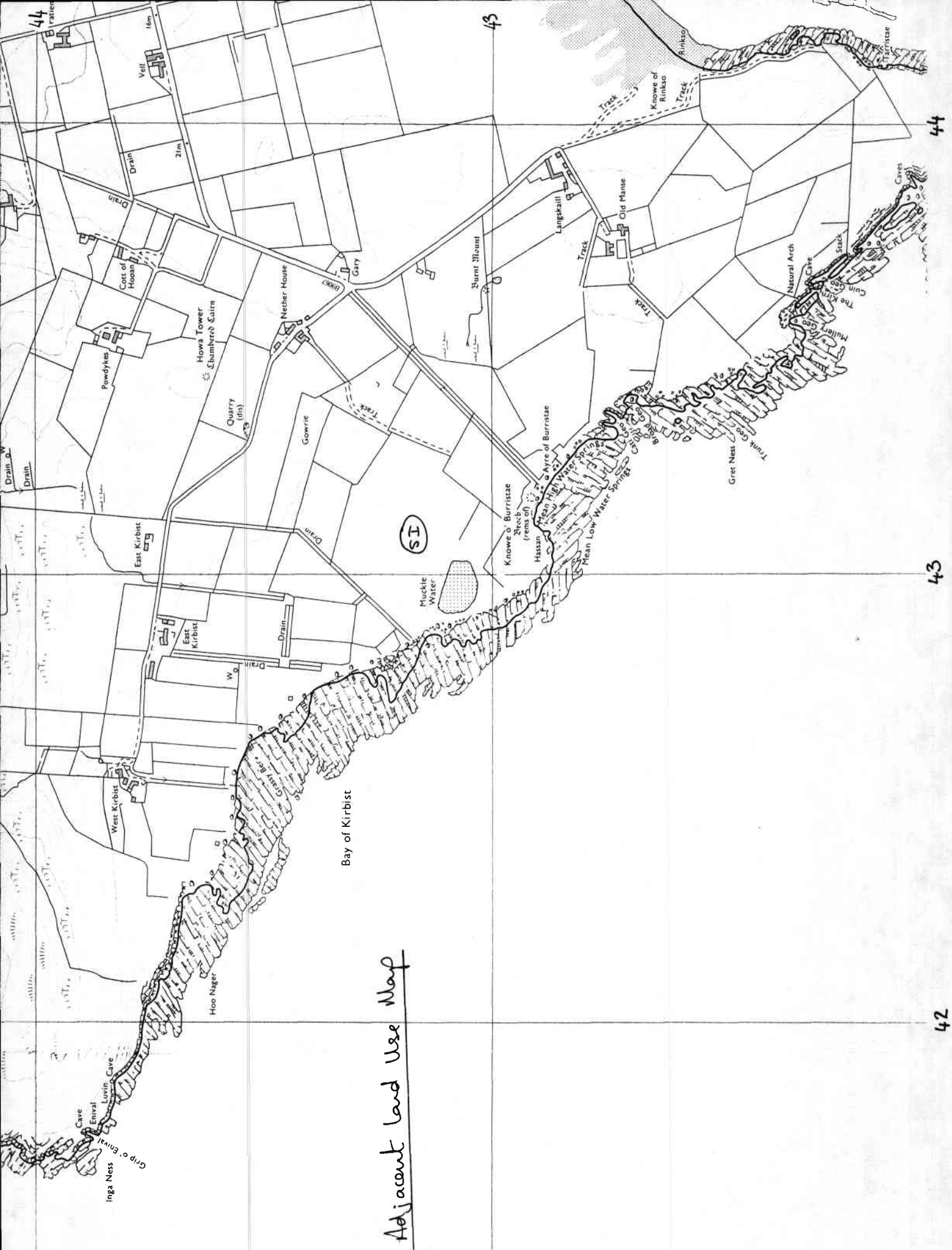
Vegetation + Substrate Map

SI

N ↑

MUCKLE WATER  
≈ 1:1000





Adjacent land use map

Plant Communities

Loch type IVc

7A.

## Edge

The lochan is situated in a semi-improved grazed field, the grassland of which extends up to the predominantly trampled mud banks. However, along the western margin is a storm beach with Potentilla anserina, Glaux maritima and Tripleurospermum maritimum along the boulders. This community grades into a Glyceria fluitans, Agrostis stolonifera and Alopecurus geniculatus community of organic mud.

A zone of Eleocharis palustris separates the grasses from the Hippuris vulgaris community toward the lochan centre. Ranunculus baudotii occurs at the edge of this H. vulgaris community.

S19c Eleocharitetum palustris, Agrostis stolonifera sub-community.

## Open water

The open water community consists of a bed of Potamogeton pectinatus beyond the H. vulgaris zone. The remaining open water area supports scattered Potamogeton pectinatus and P. filiformis with algae.