

MAP 41: PORTLING BAY TO MERSEHEAD

Hinterland Geology and Coastal Geomorphology: The map sheet depicts a coastline that radically alters from one that has a precipitous cliff-edge to low lying land that is dominated by sand dunes. At Sandyhills Bay, low sand dunes have formed at the head of the bay. Till outcrops over steep cliff-edge towards the small burn called the Southwick Water. Salt-marsh dominates the shoreline at the mouth of the Southwick Water.

Erosion Class: The coastline in this region is exposed to south-easterly gales. The dunes at Sandyhills Bay are seriously eroding and have recently been defended by fencing. Dune blow-out has occurred on the dunes facing the sea. This damage has been increased by visitor pressure as the bay has a caravan park and picnic area. Eastwards towards the Southwick water the shoreline is stable with some accretion and erosion occurring up the Southwick Water burn.

Built Heritage & Archaeology: This section contains two archaeological sites; both situated at Sandyhills. The remains of a saltpans, noted in the first edition map (OS, 1854) may survive towards the west flank of the bay. Further inland from the bay, Barnhourie Mill survives and has been renovated into a house. No sites in this stretch of the coastline are threatened by coastal erosion.

Map 41: Hinterland Geology and Coastal Geomorphology

1. PORTOBEAGLE BAY to NEEDLES EYE

ARCH

NX 873 530

4.5km

Cliff (> 10m)

Till and fluvioglacial drift over visible rock

This is an exposed stretch of irregular coastline with a highly incised cliff-edge. Till occurs over visible rock platform with fluvioglacial deposits and marine sands and gravels evident towards the east of the unit. The shoreline consists of precipitous cliffs with steeply folding Wenlock series greywackee with natural arches.

2. NEEDLES EYE ARCH to BLACKBURN

BRIDGE

NX 895 554

2.5km

Cliff (<10)

Till

This unit contains till over outcropping rock platform. At the head of Sandyhills Bay, blown sand has formed a low system of dunes. To the east of Sandyhills Bay, till overlies rock cliffs. The foreshore east and west of the bay is predominantly sand and poorly sorted boulders. The beach in the bay is mainly clean sand and marine shells. The distance between the MHWMS and the MLWMS is estimated to be c.3km.

3. BLACKBURN BRIDGE to west of

SOUTERNESS POINT

NX 950 550

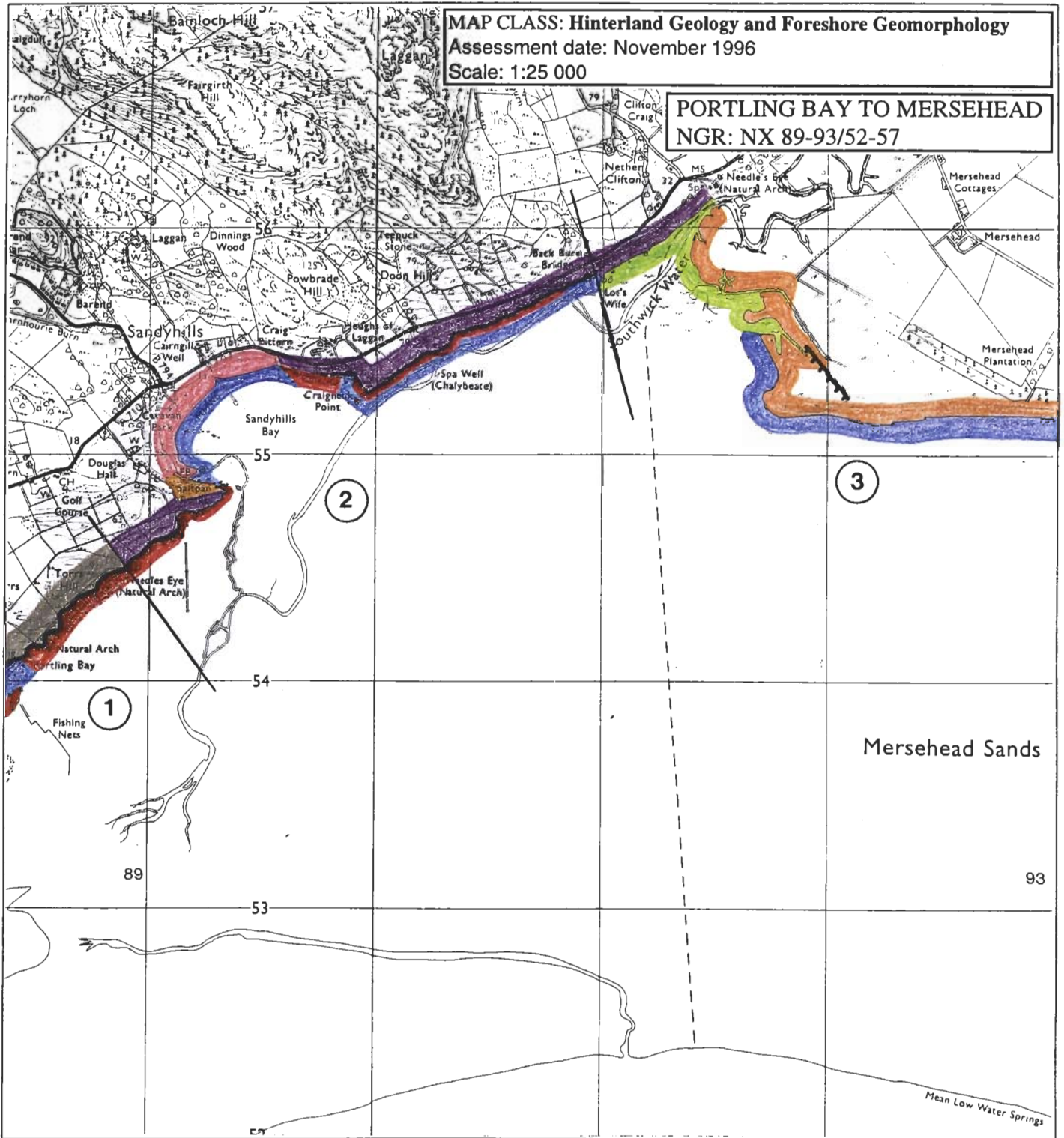
8.3km

Sand dunes

This unit has a uniform hinterland of Holocene raised sand and gravel coastal deposits that form a series of elongate terraces and ridges. These overlook wide sand flats with an estimated tidal reach (springs) of 4km towards Southerness Point.

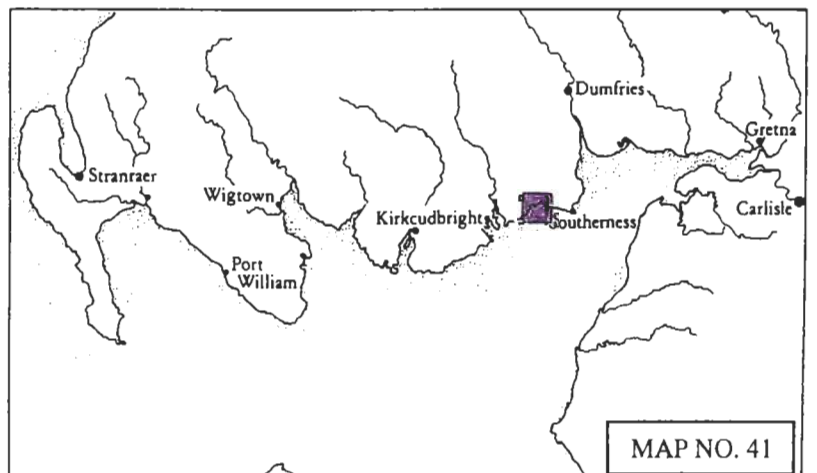
MAP CLASS: Hinterland Geology and Foreshore Geomorphology
 Assessment date: November 1996
 Scale: 1:25 000

PORTLING BAY TO MERSEHEAD
 NGR: NX 89-93/52-57



KEY

Hinterland Geology	Derwent Code	Colour
Drift, boulder clay	French Grey	
Drift, boulder clay over visible rock	Dark Violet	
Raised beach and marine deposits	Golden Brown	
Blown sand	Pink Madder Lake	
Glacial sand and gravel	Magenta	
Alluvium	Emerald Green	
Coastal Geomorphology		
Mainly rock platform	Deep vermilion	
Mainly sand	Ultramarine	
Mainly alluvial/marine mud	Venetian Red	
Marsh	May Green	
Coast Edge		
Low edge (<5m)	Thin black line	
Cliff (>5m)	Solid black line	
Man made barrier	Black line with spines	
Shingle beach	Small circles	
Human disturbance	Black carats	



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MAP 41: EROSION

1. SALTPAN ROCKS to BLACK BURN BRIDGE

NX 894 554

2.1km

Eroding/eroding or stable

This unit includes Sandy Hills Bay (NX 884554) which contains a dune system that has evidence of severe erosion both at the MHW and also intensified by tourist pressure. The surrounding shore has a wide intertidal area that is mainly shingle and sand bars that appears to be stable at the present.

2. Mouth of SOUTHWICK WATER to CAULKER BUSH

NX 924 566

5km

Both accreting and eroding

Tidal stretch of the Southwick Water which is a meandering river with large loops. Erosion is occurring on the inside curves and mud is accreting on the calmer stretches.

3. BLACKBURN BRIDGE to south of PRESTON MERSE

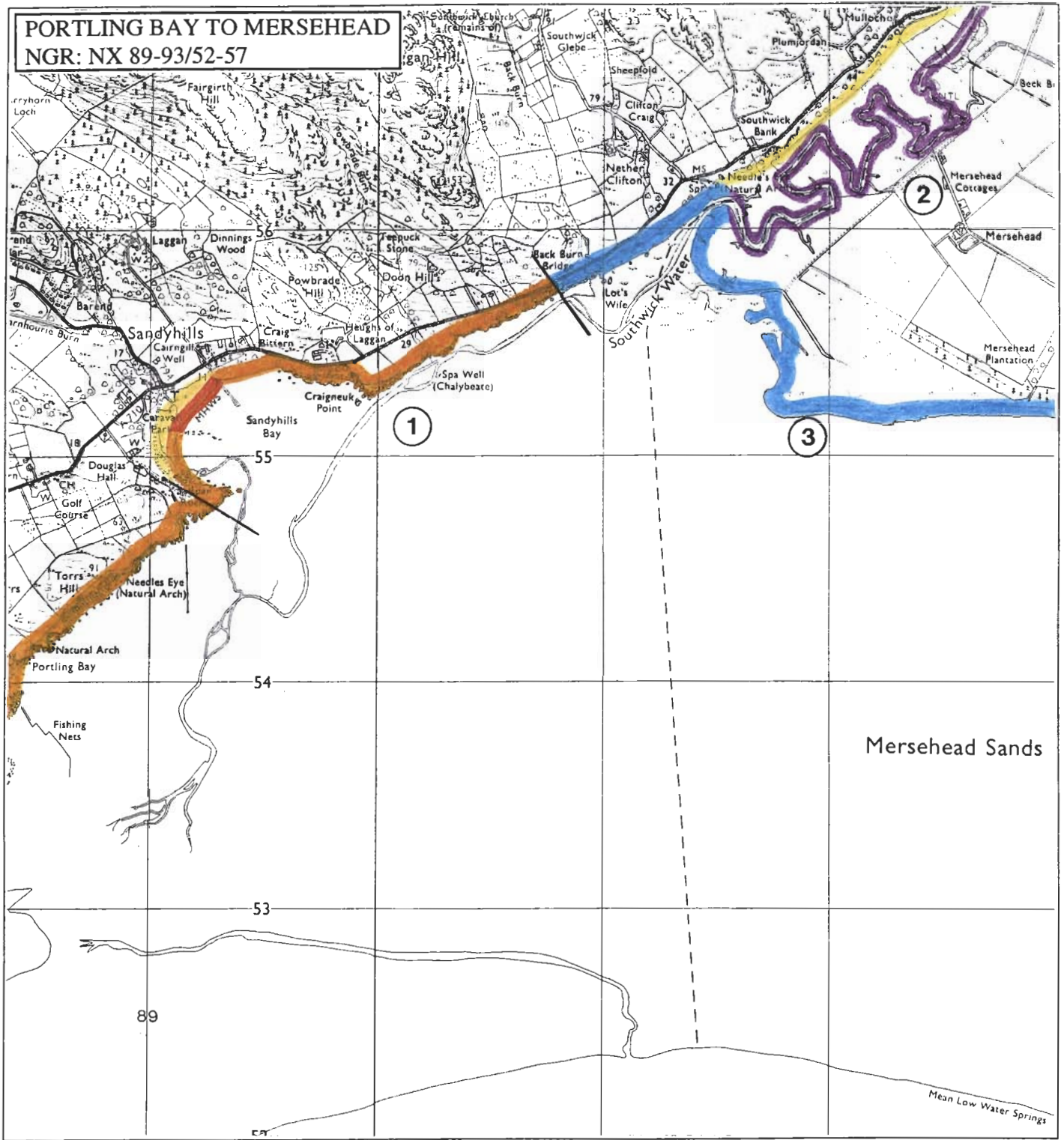
NX 926 552

4.3

Accreting or stable

Very straight sandy beach backed by stable dune systems. No erosion is occurring at the present.

PORTLING BAY TO MERSEHEAD
NGR: NX 89-93/52-57



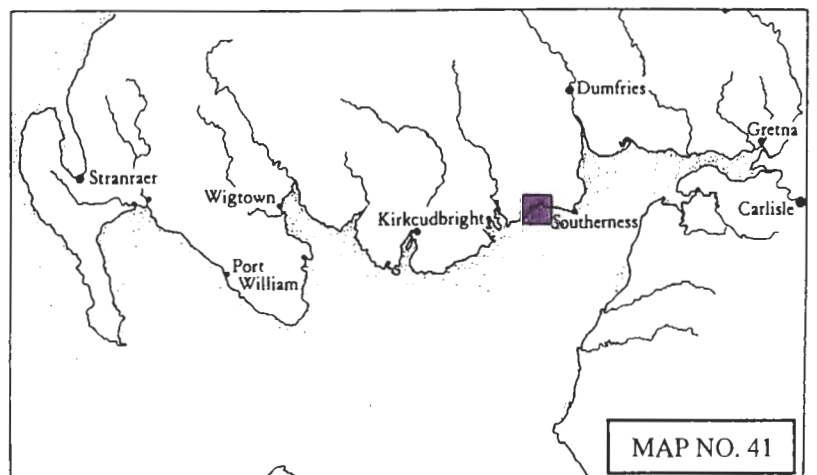
KEY

Erosion class	Derwent Code	Colour
Definitely accreting	Prussian Blue	
Accreting/stable	Light Blue	
Stable	Grass Green	
Stable/eroding	Deep Chrome	
Definitely eroding	Deep Vermilion	
Both accreting and eroding	Imperial Purple	
No access	Blank	
Land below 10m	Straw Yellow	

MAP CLASS: EROSION

Assessment date: 10.10.96

Scale 1:25 000



MAP NO. 41

MAP 41: BUILT HERITAGE AND ARCHAEOLOGY

Sites on the Coast Edge & Foreshore

None

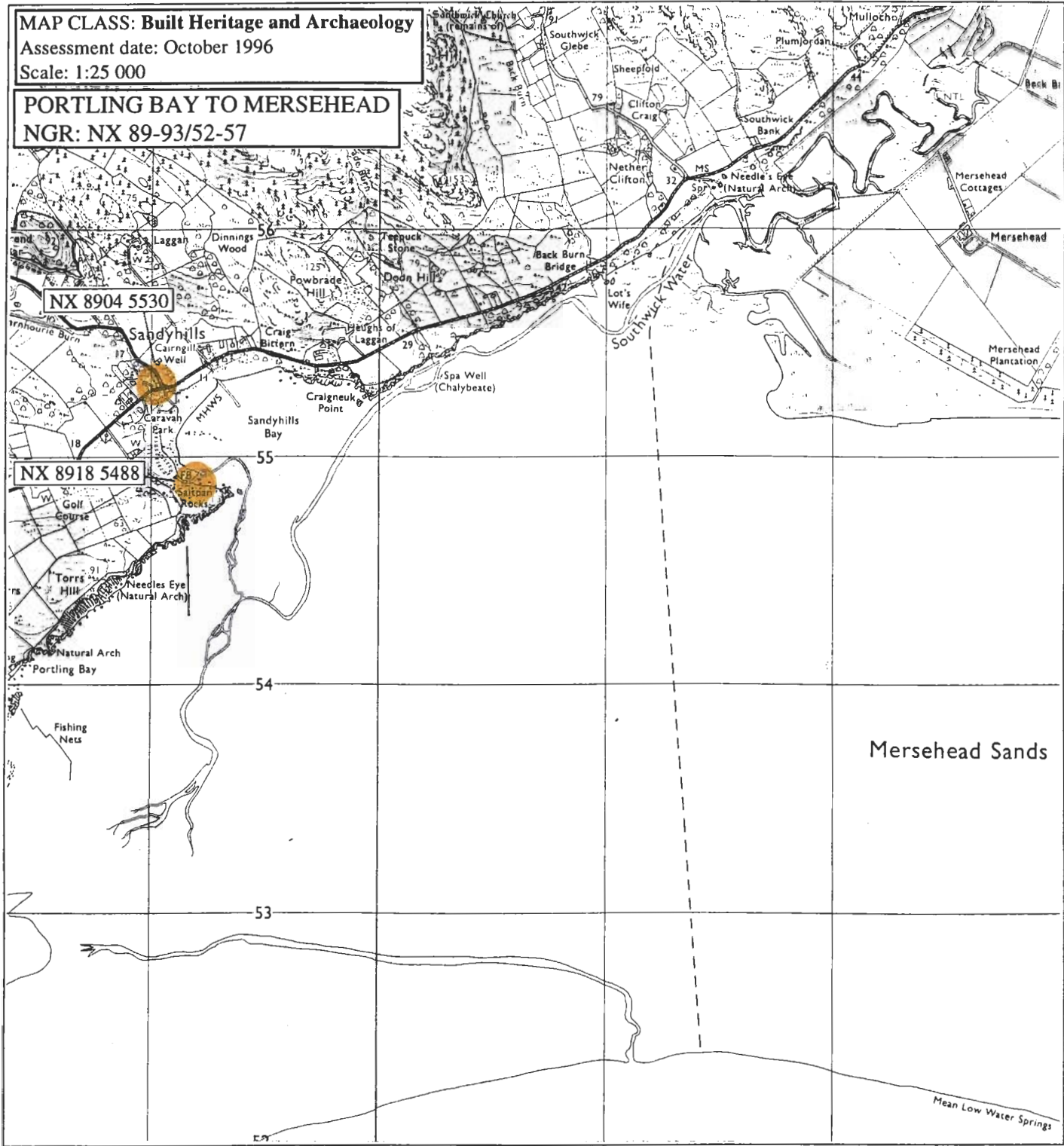
Sites in the Hinterland

NX 8918 5488
SANDYHILLS BAY
Salt pans
18/19th century
Good
Nil

NX 8904 5530
BARNHOURIE MILL, SANDYHILLS
Old Mill
Uncertain
Good
Nil

MAP CLASS: Built Heritage and Archaeology
 Assessment date: October 1996
 Scale: 1:25 000

PORTLING BAY TO MERSEHEAD
 NGR: NX 89-93/52-57



KEY

Site location	Symbol	Colour	Significance
NGR ref. - eg.	Roundel - Solid, (or area)	Red	Protected Ancient Monument
	Cross	Red	Listed Historic Building
NX 143 368	Roundel - Open, (or area)	Red	Monument formally proposed by Historic Scotland for designation
	Roundel - Solid, (or area)	Yellow	Other known Ancient Monument
NMRS ref. - eg.	Dashed outline	Yellow	Gardens/Designed landscape
NX13 SW17	Roundel - Solid, (or area)	Yellow	Undesignated wreck
	Area	Green	Insufficient information: more work needed
	Area	Blue	Probably archaeologically sterile

