

## MAP 53: POWFOOT TO ANNAN

**Hinterland Geology and Coastal Geomorphology:** The coastal geology from Powfoot to Annan is dominated by fluvio-glacial outwash, blown sands and marine deposits. The land beyond Newbie Cottages is flat and lies below 10m O.D. marine sands and gravels flank the River Annan. The coastal edge as far as Barnkirk Point consists of mud and boulders and has a fairly steep gradient down to the channel of the River Eden. Salt-marsh is common along the River Annan and eastwards towards Eastriggs.

**Erosion Class:** This region marks the start of the longest stretch of ('softer') eroding coastline throughout this entire coastal survey. The soft glacial-outwash and blown sand deposits are constantly eroded at the HWM as the channel of the River Eden encroaches landwards.

**Built Heritage & Archaeology:** This section contains a relatively dense distribution of sites dominated by monuments dating to the seventeenth to nineteenth centuries. Included in this group, which clusters around the river Annan, are mills, warehouses, quays, piers and buildings, reflecting the maritime trade of the town of Annan particularly in the eighteenth and nineteenth centuries (Graham & Truckell, 1977, 115-117). The remains of disused fish traps is situated near the mouth of the river and represents a common monument along the foreshore east of the river Annan. Much of the older remains, particularly at Barnkirk Point and Newbie, have at some stage in the past been destroyed by industrial development.

## Map 53: Hinterland Geology and Coastal Geomorphology

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### 1. POWFOOT to BARNKIRK POINT

NY 167 650

5.3km

Low edge (< 5m)

*Glacial sands and gravels, blown sand, marine sands and gravels*

Lower tidal reach of the River Eden

This straight stretch of coast has a complex geomorphology, consisting of different types of marine deposits. From Powfoot to south of Broom (NY 162 657), laminated glacial sands and gravels occur. From here to Newbie Mains (NY 173 647) blown sand laminated with beach deposits can be seen in shore sections. From this location to Barnkirk Point, marine sands and gravels occur cover carse clay. The shoreline is a mixture of mud and poorly sorted boulders.

### 2. BARNKIRK POINT to WATER FOOT via ANNAN BRIDGE

NY 185 650

4km

Low edge (< 5m)

*Marine sands and gravels*

Lower tidal reach of the River Annan. The hinterland of this unit is mostly marine sands and gravels. The riverbank on either side of the river channel contains alluvial mud and silt.

### 3. WATERFOOT to GOWKESK RIG

NY 205 649

2km

Low edge (< 5m)

*Marine sands and gravels*

The hinterland of this unit consist of marine sands and gravels overlying Carse clays. The foreshore at the HWM is mainly saltmarsh and mud that borders tidal mud-flats.

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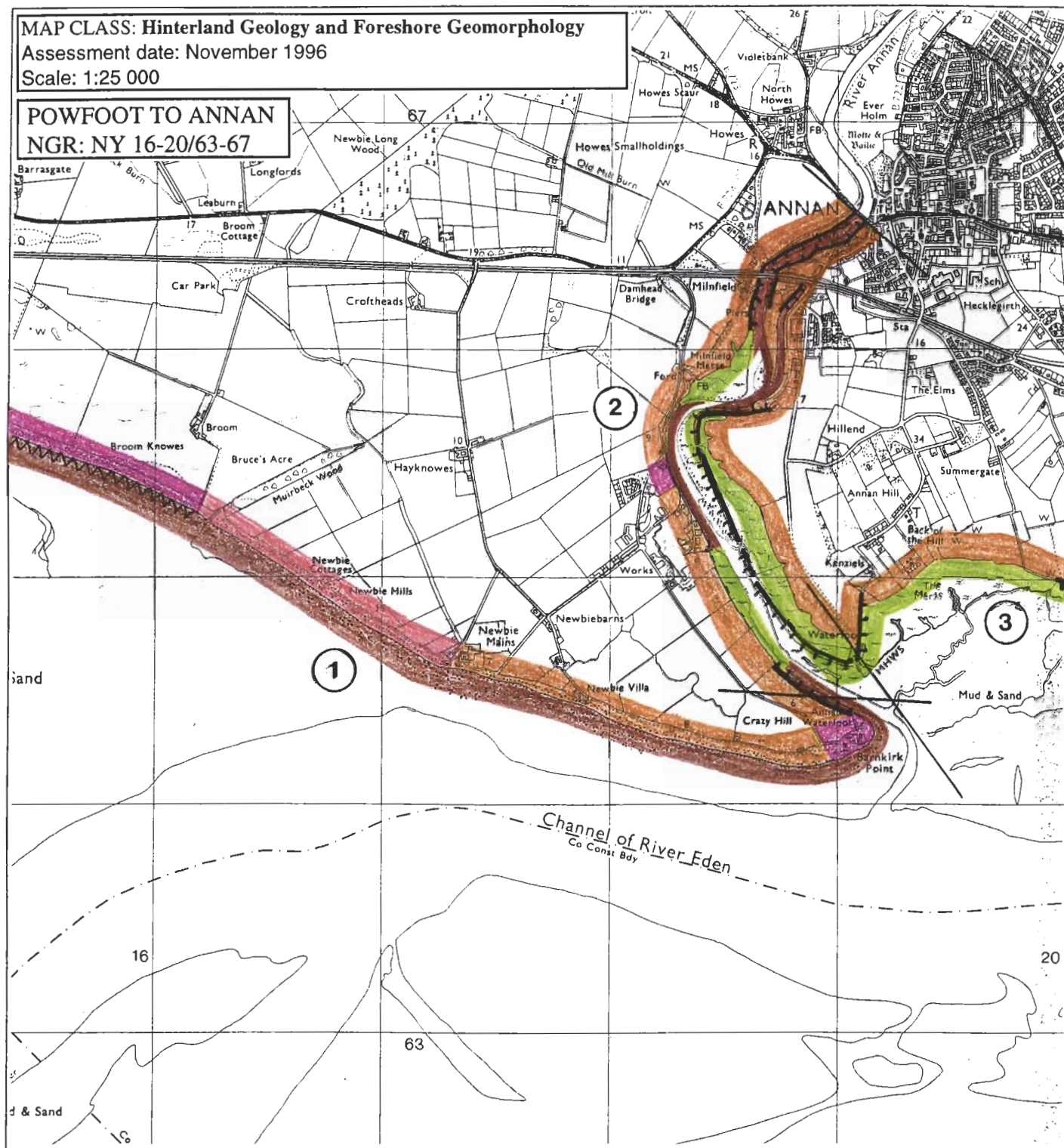
**MAP CLASS: Hinterland Geology and Foreshore Geomorphology**

Assessment date: November 1996

Scale: 1:25 000

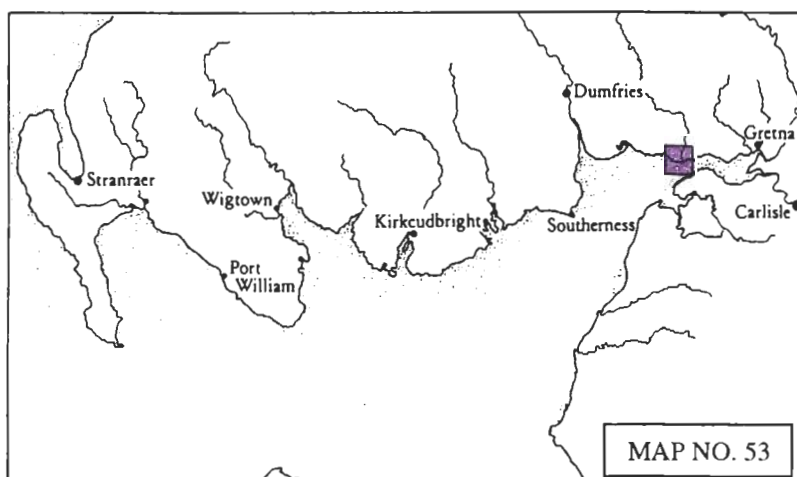
**POWFOOT TO ANNAN**

NGR: NY 16-20/63-67



**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 Mudder 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	



MAP NO. 53

## MAP 53: EROSION

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### 1. POWFOOT to BARNKIRK POINT

NY 183 464

4.5km

#### *Definitely eroding*

This unit has a very unstable coastline effected by storm damage. The cliff section c. 200 east of Hillhouse (NY 162658) shows evidence for severe erosion and slope failure. Concrete and builders rubble have been used to consolidate the cliff but this is failing badly. Concrete and brick debris is scattered along wide stretches of this soft coastline.

### 2. BARNKIRK POINT to MILNFIELD

NY 192 642

6.6km

#### *Accreting or stable*

Lower tidal stretch of the River Annan with mud accreting on the western banks of the river due to high sediment loads brought down the river. Floodbanks protect low lying farmland behind.

### 3. MILNFIELD south to WATERFOOT

NY 192 647

2km

#### *Accreting or stable*

East bank of the lower tidal stretch of the River Annan. Mud is accreting on the river bank. Flood banks protect low lying marsh behind.

### 4. WATERFOOT east to SEAFIELD

NY 200 650

1.9km

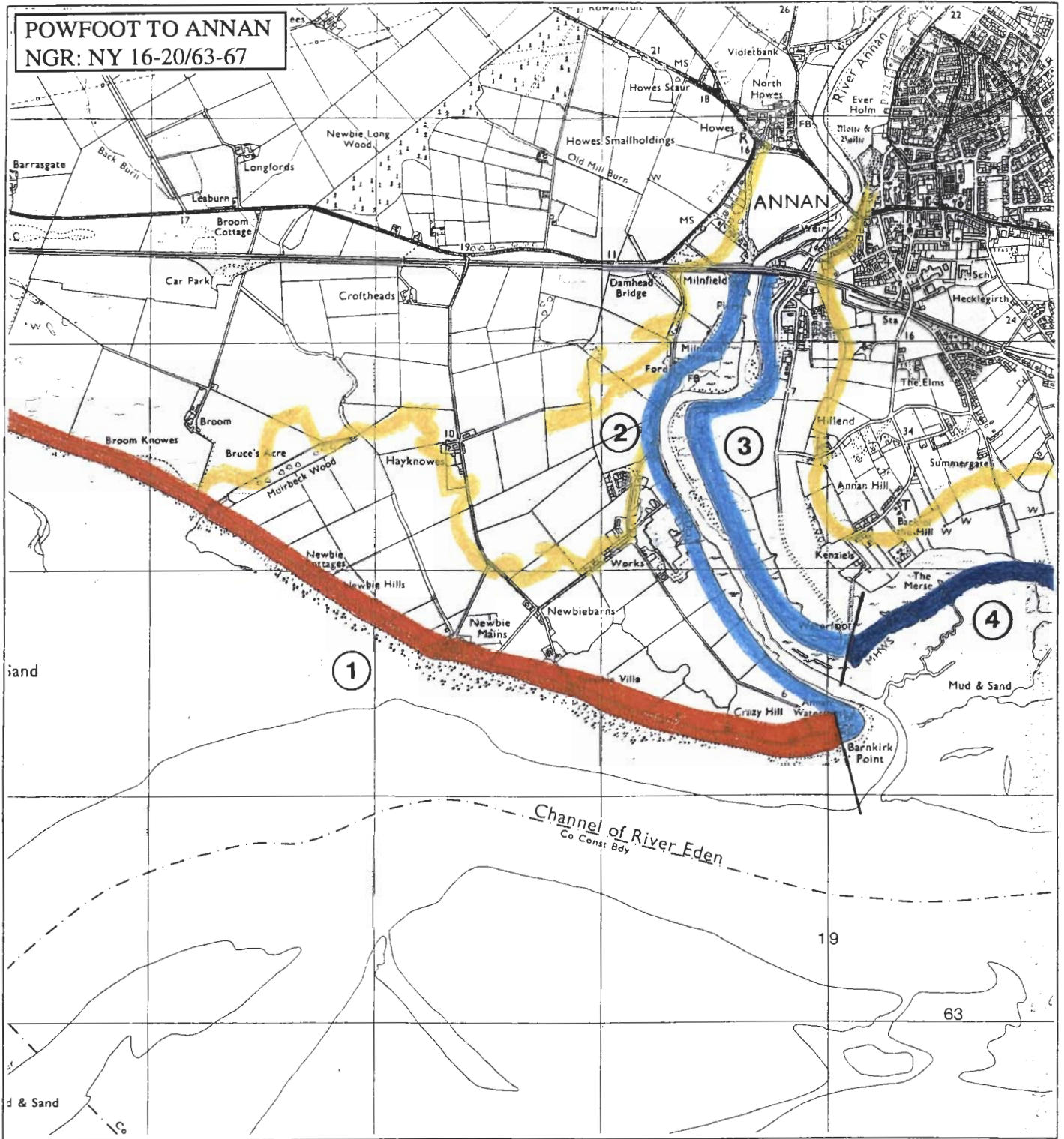
#### *Definitely accreting*

This unit consists of accreting mud banks at the HWM caused in part by high sediment loading down the River Annan and in part to the influence of the old railway jetty at Seafield (NY 206645).

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**POWFOOT TO ANNAN**  
**NGR: NY 16-20/63-67**



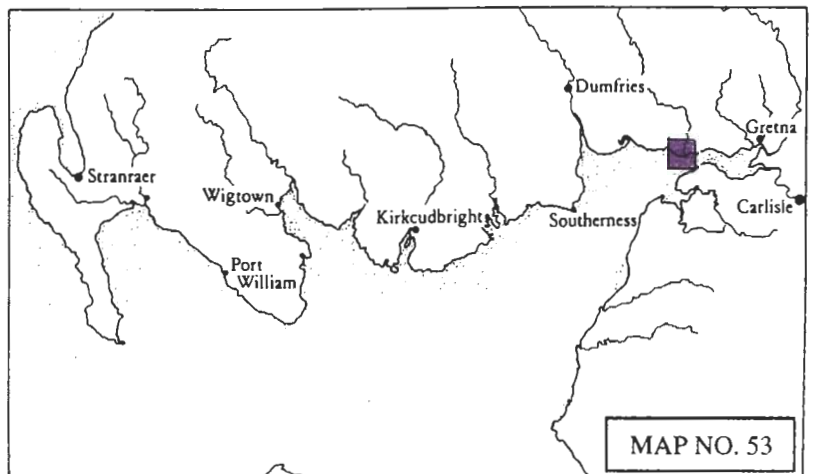
**KEY**

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: 08.10.96

Scale 1:25 000



**MAP NO. 53**

## MAP 53: BUILT HERITAGE AND ARCHAEOLOGY

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### Sites on the Coast Edge & Foreshore

**NY 1678 6497**  
**NEWBIE COTTAGE**  
 Cottage  
 Statutory Listed Building  
 17<sup>th</sup> century  
 Good  
 Nil

**NY16SE 8**  
 NY 1717 6469  
**NEWBIE MAINS**  
 Cists  
 2<sup>nd</sup>/3<sup>rd</sup> Mill BC  
 Uncertain; not located  
 Nil

**NY 1738 6466**  
**NEWBIE MAINS FARM**  
 Farmhouse  
 Statutory Listed Building  
 19<sup>th</sup> century  
 Good  
 Nil

**NY16SE 11**  
 NY 1903 6425  
**WATERFOOT**  
 Spears & Skeleton Findspot  
 Destroyed  
 Nil

**NY16SE 18**  
 NY 1903 6425  
**BARNKIRK POINT**  
 Lighthouse  
 19<sup>th</sup> century  
 Destroyed  
 Nil

**NY 1864 6621**  
**MILNFIELD PIERS**  
 Stone Piers  
 Uncertain  
 Good  
 Nil

**NY 18 66**  
**ANNAN**  
 Mills, Stores, Viaduct &  
 Quay  
 Statutory Listed Buildings  
 19<sup>th</sup> century  
 Good  
 Nil

**NY 191 647**  
**WATERFOOT**  
 Flood Banks  
 Uncertain  
 Fair  
 Monitor N

**Y 1900 6460**  
**WATERFOOT**  
 Shipwreck  
 Uncertain  
 Poor  
 Survey & Monitor

**NY16SE 16**  
 NY 1910 6460  
**WATERFOOT**  
 Harbour  
 Uncertain  
 Fair  
 Monitor

**NY 1980 6466**  
**WATERFOOT**  
 Disused Fish Traps  
 Uncertain  
 Good  
 Nil

### Sites in the Hinterland

**NY16SE 9**  
 NY 1742 6469  
**NEWBIE MAINS**  
 Site of Castle  
 Uncertain  
 Good  
 Nil

**NY 1831 6589**  
**MILNFIELD BRIDGE**  
 Foot Bridge  
 Uncertain  
 Good  
 Nil

**NY 1860 6628**  
**MILNFIELD FARM**  
 Farmhouses  
 Statutory Listed Buildings  
 Early 19<sup>th</sup> century  
 Good  
 Nil

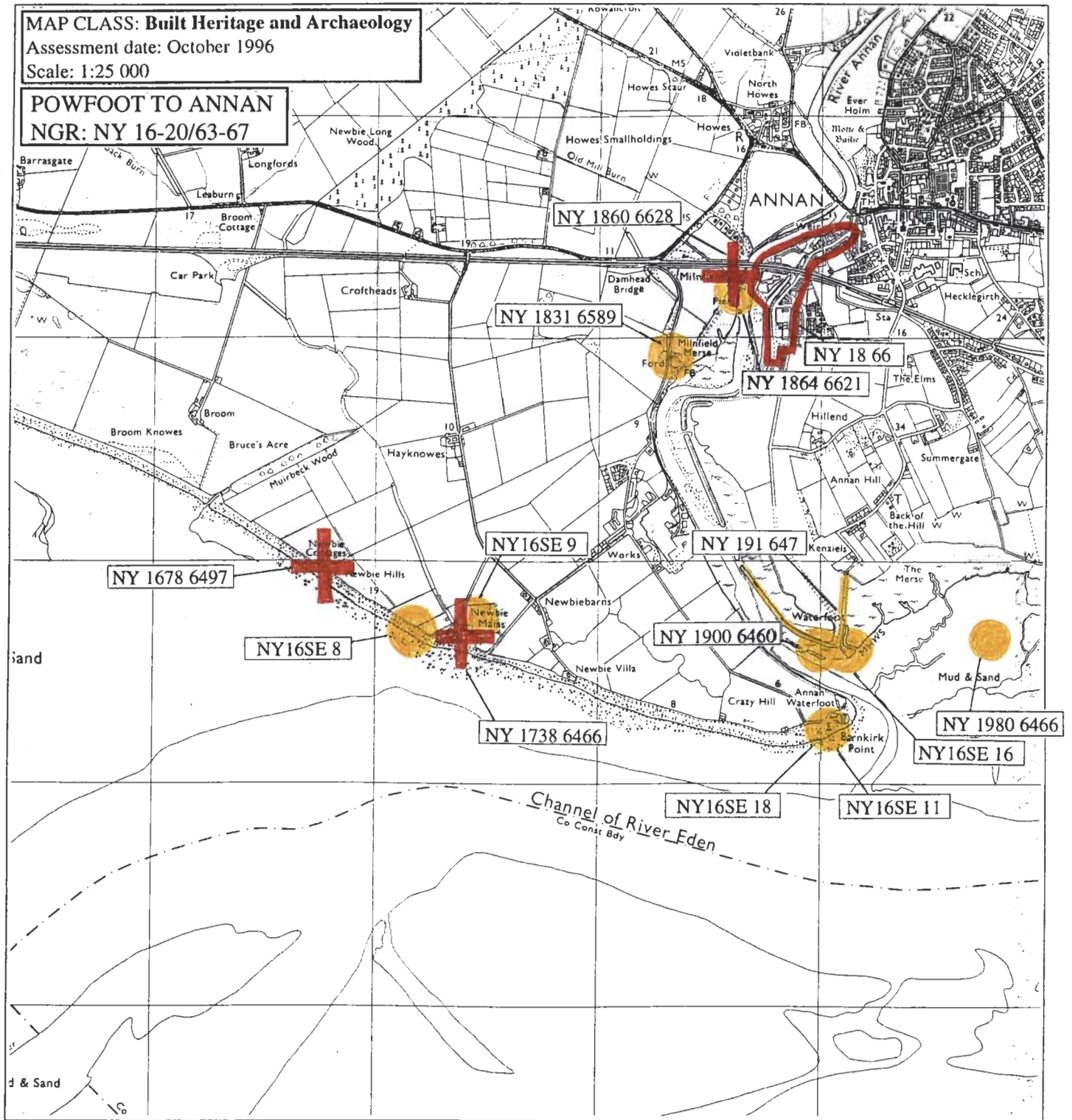
**MAP CLASS: Built Heritage and Archaeology**

Assessment date: October 1996

Scale: 1:25 000

**POWFOOT TO ANNAN**

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**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
	Roundel - Solid, (or area)	Yellow	Undesignated wreck
NX13 SW17	Area	Green	Insufficient information; more work needed
	Arcs	Blue	Probably archaeologically sterile

